COLOMBIA 2006-2010:
A WINDOW OF OPPORTUNITY

POLICY NOTES PRESENTED BY THE WORLD BANK

Colombia 2006-2010 : A Window of Opportunity

1818 H Street, N.W.
Washington, D.C. 20433, U.S.A.
Internet: www.worldbank.org/co

Manufactured in Bogota, Colombia
First Printing: January, 2007

Printing and Manufactured in Bogota, Colombia / 2007
The World Bank - Colombia

Edition: Gabriela Aguilar
Cover Design: Alejandro Espinosa

World Bank
Colombia 2006-2010 : A Window of Opportunity / Policy Notes
Presented by the World Bank. – Bogota, Colombia : The World Bank, 2007.
Fiscal policy – Colombia. – 2. Taxation – Colombia. – 3. Poverty - Colombia. – 4. Colombia – Economic conditions – 2006-2010. – 5. Colombia – Social conditions – 2006-2010. – 6. Colombia – Economic policy – 2006-2010. - 7. Colombia – Politics and government – 2006-2010.

Acknowledgements

This document is the product of a collaborative process among different departments within the Latin American and Caribbean Region Vice-Presidency of the World Bank. The overall coordination and editing, as well as the preparation of the overview note, was carried out by a team consisting of Mario Sanginés, Laura Kullenberg and David Rosenblatt, under the overall guidance of Ms. Isabel Guerrero and Mr. Miguel López-Bakovic. The team wishes to acknowledge the major contribution made by the sector leaders for the Colombia and Mexico Country Management Unit in the coordination of the notes: Ethel Sennhauser (ESSD), Anna Wellenstein (FPSI), and Mark Hagerstrom (HD). Valuable support for the preparation of the final document was received from Gabriela Aguilar and Fátima Galarraga. Finally, the credit for this team effort lies mostly with the authors of each of the policy notes, whose names are noted individually in each note.

Table of contents

Preface

The Context: Four years of accomplishments.

The technical notes that make up this volume were prepared between November 2005 and May 2006 and are part of the desire of The World Bank to contribute ideas to incoming administrations around the world with the hope of enriching the depth, breadth, and quality of public policy. More often than not, the client that receives this contribution is about to embark on the monumental task of setting policy priorities, rearranging its public administration, and learning how to run a national government.

Much less frequently, these notes are received by a re-elected government, with years of accumulated experience and an ongoing development agenda. Under such circumstances, the notes need to add value to the government's ongoing policy agenda and help the administration build upon the accomplishments of its first administration.

The re-election of President Uribe for a second four-year term establishes such a setting for these notes. The instruments for long-term strategic planning launched during Mr. Uribe's first administration, such as the *Visión 2019*, will be developed further, making it essential for the notes to be useful inputs for enriching ongoing policy discussions.

To understand what the notes are designed to help build upon, an overview of the accomplishments of the last four years is essential. These are numerous and impressive. The following sections highlight these accomplishments as described in the President's 2006 Report to Congress, which in turn follows the structure of the National Development Plan.[1]

---

[1] The report, which was presented by the President to Congress on July 20, 2006, can be found at http://www.dnp.gov.co/paginas_detalle.aspx?idp=235

The National Development Plan that served as the framework for public policy during the last four years was structured into four pillars: Democratic security, sustainable economic development and employment, social reactivation, and renovation of the public sector administration.

Democratic Security. It is widely acknowledged that then-candidate Alvaro Uribe's proposal to combat violence head-on contributed to his high level of popular support in the 2002 elections. Over the last four years, his strategy to expand the professional armed forces and seek state presence throughout the Colombian territory has yielded impressive results in terms of lower indices of violence virtually across the board.

Remarkably, it took only 22 months for the Uribe administration to secure state presence in all the country's 1,098 municipalities, a target achieved in February 2004 with the establishment of a police garrison in Murindó, Antioquia.

Some of the most impressive results reported for the four-year period include the percentage reduction in the homicide rate by 40.3 percent, in households forcefully displaced by 59.8 percent, in kidnappings by 80 percent, and in terrorist attacks to towns and infrastructure by 62.9 percent.

Sustainable economic development and employment. The average annual economic growth from 2003 to 2005 was 4.6 percent, including 5.2 percent during 2005, the highest in a decade. This trend continued during the first semester of 2006, when an annualized growth rate of 5.74 percent was observed[2].

In terms of the external sector, the report points to a current account deficit of 1.7 percent of GDP between 2004 and 2005, in contrast with a 4.7 percent of GDP between 1994 and 1995. Exports reached a record level of US$21.2 billion in 2005, in contrast with US$12.0 billion exported in 2002. The level of exports recorded for the first quarter of 2006 is 98.4 percent greater than the same period of 2002.

Regarding the fiscal accounts, and as will be discussed at greater detail later in this report, 2005 closed with consolidated public sector deficit of zero, something not achieved since 1994 and a marked improvement over the 3.6 percent deficit recorded for 2002. The Central Government deficit, however, did not reduce substantially, although this is partly explained by the fact that in 2004 the government assumed the debt of the pensions system.

The substantial level of economic growth has had a positive impact on the level of employment. The report to Congress indicates that 1.9 million new jobs have been created and the unemployment level has dropped from 15.1 percent in May 2002 to 11.5 percent in May 2006. An increase in the quality of employment has also been observed; the level of informality in employment has dropped from 62.3 percent to 59.8 percent.

Social Reactivation. In this area, the President reports substantial progress in the fight against poverty and inequality through the application of seven "tools" that make up a

[2] DANE, press report of September 20, 2006.

comprehensive social reactivation plan. The achievements include an increase of 14.2 percent in per-capita household income from 2002 to 2005, a driving force behind the reduction in poverty from 57 percent to 49.2 percent, and in extreme poverty from 20.7 percent from 14.7 percent.

Regarding the government's accomplishments in public education, pre-school, primary, and secondary coverage increased by over 1.4 million slots, equivalent to an 18.3 percent increase over 2002. Over 300,000 new higher-education slots were also created.

Important coverage expansion was also achieved by the social protection network. Between August 2002 and June 2006, 7.8 million new beneficiaries of the subsidized health system were incorporated, equivalent to an increase of 72.9 percent. The continuation and expansion of the *Familias en Acción* program is also a significant accomplishment. This program, originally designed to end in 2005, is still ongoing and has increased its coverage from 320,000 families in 2002 to 564,000 in 2006.

Public Sector and Governance. In this area, the report to Congress highlights what has been reflected in studies carried out by the World Bank Institute and other entities. In terms of the WBI governance studies, Colombia has shown a steady and marked improvement since 2002 in areas such as control of corruption, effectiveness of government, participation and accountability, rule of law and institutional stability. In addition, the report highlights that in the 2006 annual competitiveness report, Colombia has moved up 7 places since the previous year.

* * *

This is the setting for these notes; the beginning of the second term of an administration with high popular support and important accomplishments to its credit. However, as President Uribe has acknowledged, much remains to be done. We hope these notes will be a useful input for his second administration, in some small way, to expand these achievements even further.

Colombia 2006-2010: A Window of Opportunity

Policy Notes presented by The World Bank

This document presents the recently elected Colombian administration with a set of policy notes meant to enrich the debate around critical issues affecting the country's development. These notes build mostly upon existing research and represent the Bank's independent view on topics which are either at the crux of ongoing policy discussions or merit a more prominent place in this dialogue.

This effort has been undertaken with the awareness that the country is engaged in ongoing discussions about most of the issues that are included here. In August 2005, the National Planning Department (DNP) published the book *2019: Visión Colombia II Centenario*, a notable effort at bringing together a broad set of issues and perspectives to define a vision for launching the third century of Colombia's life as a republic. In particular, the efforts made to consult society at large and build consensus for this vision have been quite remarkable.

Other initiatives are under way that set the stage for policy discussions about the country's future including the *Misión de Pobreza* or the analytical work surrounding the *Agenda Interna.* There is also a vibrant debate taking place with private sector entities such as universities or think-tanks about national development issues. These notes have been designed to contribute to the analysis contained in all of these ongoing efforts.

Although more limited in their scope, these notes build upon the recommendations presented by the Bank in the 2002 policy notes, published in the book *Colombia: The Economic Foundations of Peace*. While the book was well received and advanced the technical dialogue in several fronts, the objective of these notes is different: to take stock of progress achieved and to look ahead to the remaining policy agenda focusing on a more targeted set of issues.

Why a Window of Opportunity? This volume is called *Colombia 2006-2010: A Window of Opportunity* because the next four years present an extraordinary opportunity for furthering

a public policy agenda that could have long-lasting positive effects on the country's development, in particular for those most disadvantaged.

Through the voting of the presidential elections, a majority of the voters (62 percent) supported Alvaro Uribe Vélez and, through the legislative elections, the electorate has provided the President with a majority in Congress. Much remains to be done to reach the vision of the 2002 *Manifiesto Democrático*, yet the endorsement received by this administration demonstrates that broad segments of society support the current course of action.

The political economy conditions for carrying out reforms during the next four years appear promising. Although it is hoped that the debate between branches of government will continue to be lively – as in any well-functioning democracy – recent developments suggest that this debate will likely become more constructive and programmatic than in the recent past.

The enactment of governance reforms for Congress, including new thresholds for representation and a mandate for increased accountability of congressmen and women to their party structure, opens an opportunity for a more orderly and focused policymaking process, which could in turn generate higher quality outcomes for the benefit of the population.

The fiscal environment has improved considerably over the last few years, to the point of reaching a zero overall public sector deficit in 2005. Important challenges remain, however, as structural reforms, particularly at the central government level, are still needed to secure fiscal sustainability.

Furthermore, part of the positive fiscal outcomes has been driven by high commodity prices and significant savings by sub-national governments, which may not be sustained in the long run. Given the trends and assuming that the necessary structural reforms are undertaken promptly, the incoming administration could operate in a healthy fiscal environment that will open the doors to expanded policy initiatives.

This *Window of Opportunity* provides a very favorable setting for advancing aggressive interventions to further alleviate poverty and inequality. Even as a country with a long history of solid growth and stable democratic institutions, poverty remains a critical issue for Colombia. Years of consistent economic growth throughout the 1980s and early 1990s lifted many out of poverty, but the macroeconomic crisis at the end of the 1990s eradicated more than a decade of progress.

At the start of the new century, as the country began to recover from its most severe recession in decades, nearly 58 percent of the population was living under the poverty line, and 25 percent of the population was living in conditions of extreme poverty[3].

[3] Preliminary numbers from the Poverty Mission website: *"Metodología de Medición y Magnitud de la Pobreza en Colombia."* Figures are for 1999.

With the return of stable economic growth in the last few years, national poverty measures have begun to improve again. According to the initial findings of the *Misión de Pobreza*, the nationwide poverty rate has dropped to under 50 percent and about 3.2 million people moved out of poverty during the first half of the current decade. Extreme poverty rates have declined to just under 15 percent; however, the latter still represents some 6 million people.

The share of the population living on less than US$1 a day is declining at a pace to reach its Millennium Development Goals (MDG) for income poverty. In fact, the Colombia Country Assistance Strategy (CAS) Progress Report (2005) shows that Colombia is ahead of the world average for five out of the seven MDG global targets and on track in achieving national MDG in all but two categories.

The drop in poverty figures is due in part to favorable economic growth of about 4 percent annually since 2000. Growth has translated into a lower unemployment rate of about 10.2 percent at the end of 2005, the lowest in the last eight years. These trends are facilitated by Colombia's good economic policies and increased security. Important social programs like the cash-transfer program *Familias en Acción* and *Paz y Desarrollo*, which benefit populations in regions affected by violence, are also aiding in poverty reduction.

However, national figures hide great ethnic, gender, and regional differences. Afro-Colombians, indigenous peoples, and female-headed households continue to suffer disproportionately from poverty. Regional disparities mean that rural areas like the poor *Pacífica* region lag behind while metropolitan areas like Bogotá receive a boost from the renewed growth. All of these factors contribute to Colombia's income inequality – the poorest 20 percent of the population receive just 3 percent of the nation's income, one of the most unequal income distributions in the world. It should be noted that Colombia is the only middle-income country in the Latin America and Caribbean region with a poverty reduction strategy.

The incoming administration could capitalize on the favorable fiscal, external, and political economy conditions to further advance on the poverty- and inequality-reduction agenda, while at the same time deepening participation, fostering the continued and energetic independence of the branches of government, and building strong democratic institutions.

The new Government is facing a moment of opportunity that offers the best of both worlds: the conditions for furthering a progressive and substantive policy agenda as well as for strengthening the foundations of a stronger democracy for the benefit of future generations.

Overview and Key Themes. The notes have been grouped around four strategic issues: *Challenges and Constraints for the Reform Process,* Investing in People, Laying the Foundations for Competitiveness, and Reducing Vulnerabilities. To arrive at these four themes, the objectives expressed in *2019: Visión Colombia II Centenario* were considered alongside the current state of development in Colombia and the recent experience, both successes and failures, in advancing the reform agenda.

A central theme that emerges from this retrospective is that Colombian policy makers—like their counterparts in other countries-face many institutional, political and historical constraints in realizing their goals. Despite the improved political environment for reforms, the Colombian case remains particularly difficult, given the conflux of an institutionally

complex democratic system, a decades-old armed conflict, and an unfinished fiscal reform agenda, among others. Although these challenges and constraints for the reform process have been abundantly debated in Colombia, they are a necessary starting point to frame the policy recommendations contained in the rest of the volume.

Two other strategic themes that emerged can be considered in tandem: *Investing in People* and *Laying the Foundations for Competitiveness*. Colombia has made substantial progress in accelerating economic growth to (over) 5 percent in 2005, and in reducing income poverty and improving most social indicators in recent years. Despite these facts, the Policy Notes still focus on investing in people and competitiveness for two reasons. First, because the Government and society at large have expressed their desire to further accelerate the recent growth and poverty reduction gains, and this can be achieved through improvements in education, health, environmental management, business climate, and basic infrastructure, addressing policies as required to provide equal opportunities to particularly vulnerable groups. A second reason is that in an ever more competitive world, Colombia must move ahead on these fronts just to secure its *current* place in the global economy.

Recent flagship reports of the World Bank[4]. have highlighted the complementarities between policies that promote equity or poverty reduction directly and policies to enhance growth. The right set of policies in these two thematic areas can create "virtuous circles" of growth and poverty reduction. A good example of the complementarities is the struggle to provide quality jobs for the poor. Regulatory reforms can unleash the potential of firms to create jobs; however, the poor need access to quality educational services in order to be qualified for jobs.

The fourth and final theme emerged from this retrospective is *Reducing Vulnerabilities*. Achievements in recent years at both the macroeconomic and individual level are never fully secure. Macroeconomic shocks can set back poverty rates by a decade, and individuals facing personal health crises or other losses can find themselves forced into poverty or even extreme poverty.

As noted in the 2002 Policy Notes, the Colombian government emerged from the 1999 economic and financial crisis with a relatively heavy debt load. This debt burden has been substantially reduced and restructured, lessening the country's vulnerability to economic shocks.

The government has also strengthened the social safety net for assisting individuals at risk. In both cases, however, more remains to be done. Colombia also faces substantial risks from the natural environment: past tragic earthquakes and floods have revealed the dramatic social and economic costs of these events.

The Policy Notes are grouped into four chapters that follow the strategic themes described above. This overview note summarizes the key messages contained in each chapter.

[4] 2005 Word Development Report: Equity and Development, and Guillermo Perry et al, Poverty Reduction and Growth: Virtuous and Vicious Circles and Nicholas Stern, A Strategy for Development

Challenges and Constraints for the Reform Process

Colombia is, by and large, a solid performer in terms of implementing reforms. Though continued efforts are needed, the 2005 edition of *Doing Business* ranked the country second in the world in terms of implementing reforms that favor the business environment. In addition, many of the 20 or so constitutional amendments enacted over the last 15 years have profoundly reformed important areas of public policy. Yet, one cannot help wondering about the counterfactual: where would the country be today if it would have been able to overcome the remaining challenges to reform? Among these challenges, the notes have focused on governance and institutional factors, fiscal rigidities, and the effects of the armed conflict.

Governance and Institutional Issues. Colombian policymakers operate in a highly complex environment. Although the 1991 Constitution was a quantum leap forward in terms of fundamental rights and participatory democracy, it also included a significant amount of detail in areas that may need adjustment over time, such as pensions or sub-national transfers. This degree of detail raises the transaction costs of passing reforms. Checks and balances were also strengthened and, although the Colombian presidency remains one of the strongest in the region, new actors began to play a prominent role in the governance environment.

Although it has been acknowledged to be one of the most robust in the region, there are certain structural shortcomings in the Colombian public administration that need to be addressed. For example, there are considerable inefficiencies and voids in the generation and use of information. Both the production and use of data need to be regulated to ensure decisions are well informed and transaction costs are reduced.

Important elements of public administration, such as the budgeting and procurement systems, have undergone unsuccessful attempts at structural reform over the last years. Continued efforts to modernize these areas to make them more efficient, transparent, and effective would yield high returns in the medium term.

Public sector institutions have undergone significant changes over the last four years, primarily through the implementation of the *Public Administration Renovation Program.* Among this program's objectives is the reduction in operational costs of the public administration, an important element for fiscal sustainability. Other objectives of this program include the modernization of public sector management in areas such as procurement, assets management, information systems, and others.

If the necessary structural reforms are carried out, recent fiscal trends suggest that the public sector could begin to think in terms of *right-sizing* instead of *down-sizing*. This implies that core government functions, such as procurement, asset management, monitoring and evaluation, and others, could be granted a solid and permanent institutional framework.

Specifically in terms of monitoring and evaluation of public policy, Colombia has advanced significantly over the last decade. DNP has become a key entity in terms of providing information to the President who, in turn, informs Congress and society on the achievements in the national development plan.

The national M&E framework, named SINERGIA, has played a key role in this effort, but its sustainability is not yet ensured. It is in this area where the need for both improvements in information flows and a more solid institutional development come together; the availability of reliable information is essential, as well as the existence of a well-staffed institutional structure that can stand the test of time.

Well-established processes by which monitoring and evaluation results would affect budgetary decisions would be a positive step forward as well, as the system, though modern, still does not have explicit consequences on the national budget. This is a long term institutional process that could eventually lead to a formal "results budgeting" framework; however, in the interim the dissemination and use of reliable information is a valuable tool for improved public sector performance.

Fiscal Rigidities. Equally important to relieve the constraints to reform is the enactment of measures that can open more fiscal breathing room for the implementation of public policy. Despite numerous revenue and expenditure-side reforms over the last years, the Colombian fiscal framework could benefit greatly from reforms that increase the government's flexibility in the design of both spending and tax policies.

The current tax structure requires substantial improvement if it is to increase its productivity within the expected limits set by the country's level of income. Sectoral and regional exemptions in the income tax and VAT generate distortions and reduce revenues, and simplification of the rate structure and limiting the exemptions to only the most essential food basket would be important improvements. High marginal corporate income tax rates are a significant constraint for investment. Restructuring parts of the Colombian tax system can help unleash the entrepreneurial potential that enhances competitiveness and growth.

In order to open up fiscal space for the types of programs that can enhance equitable growth, public expenditure policy would require adjustments. For example, public infrastructure investment needs to rebound from the emergency cuts over the past decade; transport is a priority area. Investment in transport will be especially important for a positive response to the free-trade agreement, and will require public sector spending. Budget flexibility should allow better options than cutting investment to achieve the needed primary surpluses.

Making room for this public investment will require curtailing current outlays, especially transfers to pensions and sub-national governments. If transfers to territorial entities are not reformed by 2009; they will create significant pressure on central government finances. Pension liabilities were reduced substantially through the 2005 constitutional amendment, despite substantial political resistance. Over the medium-term parametric reforms could be taken into consideration to further reduce these liabilities. Finally, earmarked revenues and permanent expenditure entitlements could be struck down as necessary, as originally envisioned in the initial efforts to amend the country's Organic Budget Code. A Decree issued late last year makes progress towards rationalizing the budget process and other intermediate steps could be taken in the future.

Alternative systemic approaches could combine taxes and public expenditures in various ways to achieve tax productivity, economic efficiency, poverty reduction, and simplicity

objectives. A possible approach would combine a broadly-applied and moderately progressive income tax with a flat and broadly applied VAT and with strongly progressive public expenditure, including, if administratively effective, a VAT stamp or reimbursement system based on the Beneficiary Selection System (SISBEN). The approach would improve progressivity, as the richer strata of the population would pay VAT on all goods and services, while the poor would be effectively compensated.

On the expenditure side, allocation of resources could be improved by better links between monitoring and evaluation and budgetary decisions. Reducing earmarking would be important for making results-oriented budgeting a reality.

The Armed Conflict as a major obstacle to reforms. No discussion regarding the obstacles to reform in Colombia could be complete without addressing the constraints placed by the armed conflict. The 40-year old conflict constrains economic growth, threatens vital infrastructure, displaces populations, erodes the fabric of society and generates fiscal costs. Violence also hinders the achievement of optimal policy outcomes to address the country's fundamental development needs.

Results of the application of the democratic security policy in recent years point to a considerable reduction in conflict related violence, the presence of the police and municipal authorities in all 1,073 municipalities of the country and the demobilization of nearly 37,000 ex-combatants from illegal armed groups. However, there is a regional variation in those results shown by the increase in homicide and other violence indicators in regions where illegal armed groups still exercise control or influence, particularly in some departments of the south and north of Colombia.

To the extent that the concentration of violence relates to strategic decisions of the illegal armed actors, it is essential to make further progress on consolidating state control and presence in the territories recovered, and recovering those areas still under control or strong influence of the illegal armed groups through the creation of an enabling environment for reducing poverty and inequality and the establishment of the rule of law in the entire territory of the country.

State control and presence are not only essential for preserving peace in areas where illegal armed groups have been removed, but also for ensuring that those fighters that relinquish their weapons are adequately supported in their re-insertion process, the victims of the armed conflict receive reparation and receiving communities are prepared and supported. As long as these individuals and the receiving communities are not fully protected against reprisals and have difficulty finding an alternative and legitimate source of income, sustainable peace in the territory will be challenging.

To this end, a national strategy for comprehensive peace, reconciliation and equitable development needs to be strengthened with the following elements: (i) a continued national level effort to create incentives for the demobilization of illegal armed groups, (ii) attention to the internally displaced population, who are the most visible and numerous victims of the conflict, (iii) mainstreaming inequality reduction interventions into key sectors, and (iv) local and regional community-led economic development and social capital building plans, inclusive of vulnerable and demobilized populations, all of which would contribute to prevent the recurrence of the armed conflict.

Investing in People

The 2005 *Human Development Report* places Colombia in the upper region of the bracket of countries with medium human development, behind neighboring Brazil but ahead of Venezuela, Peru, and Ecuador. Progress in human development has been steady but not stellar, with the overall index increasing from .727 in 1990 to .785 in 2003. The *Window of Opportunity* can open the possibility of reigniting progress in human development and becoming better prepared to face the emerging challenges of the 21st century.

The Colombian authorities have consistently demonstrated a broad and well articulated vision of investment in human capital. This group of notes attempts to reflect a broad vision as well, touching on central issues such as education, health, and social security, as well as on the protection of children against environmental hazards, the pursuit of an environmental agenda with global vision, the quest for improved infrastructure services for the urban poor, and targeting policies as required to particularly vulnerable groups, such as Afro-Colombian populations.

Rural poverty is a particular concern, since the extreme poverty rate is about 30 percent, double the rate of urban areas. Rural poverty poses particular challenges due to the difficulty of access to public services and the greater presence of armed conflict in rural areas. Many ethnic groups also live in rural areas along the coast, bringing another dimension to the design of policies for inclusive and equitable growth.

Education. Poverty can be related to the accumulation of human capital as both cause and effect. That higher educational attainment during youth leads to higher incomes later in life is probably the most documented finding in empirical microeconomics[5]. Yet, what measures can be taken to better equip Colombian youth to face a competitive world?

Education spending in Colombia is high by international standards, but has yet to be translated into better outcomes. Improvement has been slow over the past decade, undermined by the economic downturn of the late 1990's, but should accelerate based on recent reforms.

Much of the framework needed to accelerate improved educational outcomes has been put in place and some improvements are already being realized. The goals established in the *2019: Visión Colombia II Centenario* document are largely feasible; indeed several additional objectives could be added, as discussed below.

Perhaps the most difficult and rarely achieved goal in education is an important improvement in quality, and achieving it involves a major commitment from Colombia. As quality deserves an important place at the top of the agenda, further improvements in governance, as well as demand-side initiatives to accelerate the process and improve targeting would also be conducive to better educational outcomes.

[5] See G. Perry et al, Poverty Reduction and Growth: Virtuous and Vicious Circles. World Bank, 2005, chapter 9.

In terms of early childhood development, a demand-side initiative, such as expansion of *the Familias en Acción* program could greatly accelerate the incorporation of more children and help ensure targeting to the poor, as well as increase current coverage in the transition grade. This would be an expensive policy option, yet the expected effects on lowering repetition and dropout rates further along in the system would generate savings to be factored into the fiscal equation over the medium-term.

Overall pre-school enrollment rates are still low when compared with international standards. According to the World Development Indicators, Colombian pre-school gross enrollment stood at 33 percent in 2004, much lower than OECD and many Latin American Countries. Given the positive impact that early childhood development has in school performance and future labor performance, increasing enrollment rates for those under five years of age - especially for the poor - would contribute to improved educational and labor market outcomes.

Regarding primary and secondary education, progress has been made towards achieving universal coverage. Incentives and resources provided under Law 715 should facilitate reaching this goal, but would involve increasingly more marginalized populations, which require specific interventions. This goal would also be well served if the Central Government continues with its current role of developing and providing alternative service delivery models, including private contracting, as well as co-financing of initial investment. Demand-side incentives are also likely to be required; PACES provides an example of a well targeted vouchers' program, benefiting mainly the poorest segment of the population, to provide access to the educational system.

In terms of enhancing quality, proper assessment is the place to start; effective systems for monitoring and evaluation need to be put in place, as well as international testing to provide quality benchmarks. As noted above, lack of good information is an important roadblock to reform. National testing as proposed under Law 715 provides a strong basis for improving quality by targeting individual schools and making the information available for local diagnostics, but to be effective, it needs to be paired with greater accountability and autonomy, including parent and community participation. Along with the *Alianzas* program used to bring the community closer to rural schools, several departments in Colombia, with multilateral support, have worked to empower schools and communities.

The Central Government could take the lead and promote quality as its priority objective. Increased coverage almost invariably results in an overall decline in quality, as more marginal populations are brought into the system. National results should not be expected to improve over the short term and a focus on the performance of local jurisdictions and schools would bring large payoffs.

Important payoffs could also be realized by continuing to expand education programs oriented to the adult population as a strategy to improve equity and raise the average schooling among the population. Alternative pedagogical and flexible models have proven effective in improving access in urban areas, and even more in remote rural areas where sometimes it is difficult and costly to provide education using traditional methodologies.

In terms of higher education coverage and quality, the financing and quality mechanisms are already showing positive results. More public and private financing could accelerate the

process at relatively low cost, given that excess capacity still exists in both public and private institutions. In particular, continuing with attempts to introduce a results-based framework for allocating resources to public institutions would be advisable, given important payoffs for increasing enrollments and improving quality.

The expansion of the ACCES student loan program for higher education, provided by ICETEX, has dramatically expanded enrollment, taking advantage of excess capacity in public and private institutions. This expansion was in the order of 202,000 new places, increasing the enrollment rate to 24.6 percent. In addition, dropout rates between 2004 and 2005 fell from 15.2 percent to 13.4 percent.

Scholarships for poorer students could be tested, along the lines of the current PRONABES program in Mexico and its attempts to introduce income-contingent cost recovery. These can be coupled with targeted interventions for particular students at the secondary level and for those already attending tertiary, or savings programs for secondary students. A key issue will be to assure that scholarships, low-cost loans and subsistence grants reach poorer individuals, since young people from upper deciles can often finance higher education from their own resources.

Improving poorer students' educational attainment is essential to improving their individual prospects for a higher standard of living. It also contributes to Colombia's competitiveness by creating the potential for a more productive workforce.

Health. Colombia has achieved important progress in the health sector. 64 percent of the population has health insurance, there is 93 percent coverage in immunizations, the infant mortality rate is 24.4 per thousand, maternal mortality is 100.1 per one hundred thousand live births, and 89 percent of the population has access to drinking water.

Despite these accomplishments, structural poverty, vulnerability and inequality are important challenges that require the improvement of social protection instruments, human capital formation strategies and social assistance programs.

During the policy notes exercise of 2002, a number of structural and operational challenges in the health sector were identified; progress has been achieved in many areas, while others remain on the reform agenda.

In terms of structural challenges, there has been some improvement in resolving issues of the public hospital network, particularly at the level of some individual hospitals; however, the governance structure of hospitals is decentralized, demanding strong negotiation capacities by the Central Government to promote structural improvements.

The difficulties in implementing faster hospital restructuring plans have also affected the transformation of supply to demand subsidies. Challenges also remain in terms of differences in benefits plans.

Structural challenges in the Social Security Institute (ISS) have been mostly resolved over the last four years. Even though the reform of ISS was an almost impossible task politically, the government managed to achieve it in 2002 after difficult negotiations with the labor

unions. The most important remaining challenge is the financial viability of service providers, which is still fragile despite their reorganization into seven networks.

In terms of operational challenges in the health sector, significant progress has been achieved in the resolution of problems in transfers from sub-national governments to insurers, evasion in the contributive regime, quality assurance mechanisms, and in the use of FOSYGA resources to expand coverage. Improved monitoring and information systems to track the flow of funds are critical to progress in this area, and the government has an action plan for an improved system of information and control.

More broadly, the main objectives of health policy in Colombia for the end of its second century of life as a republic are the achievement of universal insurance coverage, the equalization of insurance plans across insurance regimes in order to reduce inequalities, the reduction of maternal and infant mortality and of the incidence of communicable diseases, and improved reproductive health. It should be noted that communicable diseases are also affected by environmental policies, as discussed below.

Despite an important expansion of insurance coverage in the last four years both in the Contributory and Subsidized Regimes, one of the main objectives in the system continues to be the universal health insurance coverage. However, given the difficulties in modernizing the public hospital network, to improve their financial feasibility and the quality of care they can offer, the slow transformation of supply side subsidies and the exponential growth of the costs to the system generated by the *tutela* mechanism of protection of constitutional rights, further expansions of insurance coverage will be increasingly more difficult unless those issues are adequately addressed.

Environmental protection for Colombian children. There are health problems with a particularly strong impact on children that require solutions that lie beyond the health care delivery system, particularly in areas of environmental policy. The harm caused to vulnerable populations by environmental factors is not always an issue in the front line of policy discussions; however, targeting highly cost-effective efforts towards some of the environmental factors with high impact on health is not that difficult to do, while returns can be extraordinary.

Colombia has made major strides in the last fifty years in establishing a decentralized and innovative environmental management framework in which multiple stakeholders play a role in the country's environmental management. While Colombia has made progress in strengthening its institutional capacity and managing its natural resources, challenges remain in addressing the environmental variables that present the highest cost of environmental degradation to the country and that disproportionately affect the health and productivity of the most vulnerable.

Waterborne bacterial diseases and ambient and indoor air pollution pose the highest costs of environmental degradation to Colombia, accounting for approximately 2 percent of GDP due primarily to increased child morbidity and mortality. Diarrhea, which accounts for approximately 7.3 percent of child mortality, is the most common and widespread waterborne disease and most prevalent in rural zones populated by the poorest segments of the population. In fact, at least one out of three children suffers from diarrheal illness each year.

A recent meta-analysis of water, sanitation, and hygiene interventions highlights the importance of incorporating hygiene interventions—which can reduce diarrheal illness by up to 45 percent—into programs for reducing waterborne diseases.

Air pollution is also a significant problem, with particulate matter alone responsible for an estimated 6,000 premature deaths and 7,400 new cases of chronic bronchitis in Colombia every year. To tackle this problem, Colombia urgently needs to intensify its efforts to implement a broad strategy for reducing general urban air pollution, particularly fine particulate matter.

Solid waste management also poses high costs, although mainly localized in urban areas. Half of the municipalities in Colombia do not have appropriate disposal facilities, and solid waste is disposed in open dumpsites, with or without burning processes. In late 2005, a solid regulatory framework was put in place; however, there are no compensation mechanisms for municipalities to accept a disposal site in their jurisdictions. The result is that many municipalities reject having a disposal, presenting significant health risks associated with air and water pollution, and vector diseases such as dengue and malaria.

To address this, Colombia would benefit from an urgent strengthening of its policy for waste management, including establishing standards, enforcing regulations, designing innovative solutions for small municipalities, and improving its monitoring systems (particularly for hazardous materials).

A four-pillar strategy is proposed to further improve the environmental management framework, covering actions to reduce mortality and morbidity resulting from waterborne diseases, reduce health risks associated with ambient air production, reduce the cost of environmental degradation associated with ambient air pollution, and improve solid and hazardous waste management.

Conservation of Global Environment Assets. Colombia has taken important steps in the management of global environmental assets, represented primarily by climate and biodiversity conservation. To better manage climate change and prevent ozone depletion, it ratified the Montreal Protocol in 1989, adopted the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, signed the Kyoto Protocol in 1997, and prepared its First National Communication to the UNFCCC in 2002.

In addition, to conserve biodiversity, Colombia has established a National Protected Areas System that includes publicly and privately owned lands representing 34 percent of Colombia's national territory (the second highest percentage in Latin America and the Caribbean). The country's national policy on biodiversity seeks to promote knowledge, conservation, and sustainable use of biodiversity, as well as an equitable distribution of the benefits derived from its use.

Despite these advances, Colombia's natural and human resources are highly vulnerable to the impacts of climate change. Changes in temperature, sea levels and precipitation patterns caused by global warming impact the country's water storage capacity, water quality, agricultural patterns and natural resources, and also increase the risk of natural disasters and the incidence of vector-borne diseases.

Ecosystem and biodiversity degradation is affecting the provision of fundamental environmental services, mainly water-supply, water purification, waste treatment and natural hazard protection. Biodiversity loss is also impacting the livelihood and cultural values of ethnic populations dependent on them.

Therefore, it is important that every Colombian not only be aware of the threat, but also actively participate in conserving global environmental assets, as their loss affects the well-being of all and the environmental capital left for future generations.

To this end, a strategy designed towards six objectives is proposed, seeking to consolidate the national agendas on adaptation to climate change, mitigation of greenhouse gases, and elimination of ozone-depleting substances; develop and consolidate an inclusive national protected areas system; mainstream biodiversity conservation; and strengthen the national plan of green markets.

Investing in People through Infrastructure Services for the Urban Poor. The urban sector in Colombia represents both a tremendous opportunity and challenge in the country's effort to sustain equitable growth and reduce poverty. Colombia is an urban country that will witness in the ensuing 15 years a 30 percent expansion in the population of its cities and towns. Despite the fact that poverty rates are much higher in rural areas, poverty in Colombia is also increasingly an urban phenomenon as 60 percent of the country's poor live in urban areas.

Improving the quality of life for the urban poor will require that cities and towns meet the demand for affordable shelter, expand access and improve the quality of basic urban infrastructure services. The Government has outlined a coherent investment and reform program to create 'livable cities' in the context of the *Visión 2019.* This program identifies actionable strategies to increase access to affordable land and shelter, improve the quality of financing and strengthen the commercial and operational management of the water and sanitation sector. It also includes public transport solutions such as integrated mass transit systems, improved traffic management practices and alternative public transport solutions in large, medium and small cities and towns.

There are outstanding issues of land and housing that could be addressed to increase access to affordable shelter for the poor including the reform of interest rate ceiling policies, improved targeting and structuring of housing subsidies, catalyzing housing microfinance, targeting incremental construction and improving municipal land use management practices, amongst other measures. Despite recent improvements in the supply of *vivienda de interés social* (social interest housing), continued attention is recommended on improving the targeting of housing subsidies to keep pace with the growing demand for housing solutions for low-income Colombians.

In the water and sanitation sector, recommended improvements include increasing the efficiency of financing, measures to encourage economies of scale in the sector (which is currently highly decentralized) and enhancing technical assistance for commercial and operational management, as well as enforcing regulations to address oversupply of public transport and strengthen efforts to build municipal capacity in transport planning.

Afro-Colombian and Indigenous Peoples. Inclusiveness and participation are not always sufficient to address the development needs of all segments of the population. Proactive intervention from policymakers is often required to protect those populations that face particularly severe challenges, be it to protect their cultural or environmental heritage or to lift long-standing barriers to their increased well-being.

Significant progress has been made by Colombian authorities and indigenous and Afro-Colombian organizations regarding the legal recognition, rights of and development strategies for ethnic communities in the country. Colombia has also been one of the first countries to implement bi-cultural education. While this progress is commendable, it has yet to achieve the full potential promised in the 1991 Constitution.

Populations that were recognized and promised protection under this historic document remain alarmingly stressed in terms of their economic, social and cultural conditions, and in some cases of their very survival: while illiteracy in Colombia is 16 percent, that of the Indigenous and Afro-Colombian populations is 24 percent and 31 percent respectively; 14 percent of Afro-Colombian students attend secondary and superior schools compared to a 26 percent national average; and, the infant mortality rate among indigenous groups is at 63.3 deaths for every 1,000 live births, compared to a national average of 41.3.

Furthermore, ethnic communities have not been able to fully exercise control over their land and territories and are severely affected by the conflict that afflicts the country overall, but that is especially intense in many rural areas with concentrations of ethnic peoples. Current legislation for allocating land and resources to indigenous populations is hampered by inefficiencies in the design of appropriate and functioning implementation mechanisms.

In the case of Afro-Colombian communities the challenge of reducing poverty and exclusion goes beyond those living in traditional communities and includes the increasing number of Afro-Colombians living in the cities.

Increasing the economic and social inclusion of Colombian ethnic populations through a range of development programs supported by institutional and regulatory reforms would increase the potential for productivity and growth in the country, help preserve the country's rich biodiversity, and assist in consolidating governance at local, regional and national levels.

To this end, a strategy focused on achieving six broad objectives is proposed: strengthen governance in indigenous *resguardos* and Afro-Colombian collective territories; improve the management of tax transfers to *resguardos*; environmental and natural resources management; implementation of affirmative action for Afro-Colombians; advance further with collecting official data on living conditions of ethnic groups; and increase attention and expand the support to internally displaced indigenous and Afro-Colombian families, communities, and individuals.

Laying the Foundations for Competitiveness

The search for competitiveness is as old as trade itself; yet the evolution of an integrated world economy over the last century has forced nations to carefully assess their comparative advantages and exploit them as best as possible in the global markets. The advent of free trade blocks and bilateral agreements has been placing countries in the difficult position of balancing the social costs of aperture, particularly in the short term, with the longer term gains of free trade for both consumers and competitive producers.

In this regard, international experience shows that lifting barriers to trade is unquestionably beneficial to growth and poverty alleviation. Invariably, some adjustments occur as noncompetitive sectors that were formerly protected need to either change their production techniques or shift their productive resources to new lines of business. Complementary measures can facilitate this adaptation, and targeted assistance is cost effective if it is well focused on those small scale farmers and small businesses that truly need the support.

Colombia has been gradually opening up its economy to international trade, with the total value of merchandise exports rising from US$6.7 billion in 1990 to US$21.2 billion in 2005. It should be noted that, as a share of GDP, exports in recent years have been at roughly the same level as in the early 1990s, with a slight increase in 2005. It is estimated that the Free Trade Agreement –FTA-, currently being negotiated with the United States, could bring additional private sector driven GDP growth and will lead to significant changes in the volume of trade, with both imports and exports projected to grow at a faster pace than the currently observed trends.

Some businesses have expressed concern about the appreciation of the Colombian currency in recent years. The real effective exchange rate in Colombia appreciated by about 30 percent from late 2002 to the end of 2005. Despite this appreciation, the real value of the currency is not out of line with the historical average. Colombia's Central Bank is independent, and it has established an inflation targeting framework for conducting monetary policy.

In recent years, the improved investment climate in Colombia and the high liquidity in global financial markets have induced large capital flows into Colombia. While a flexible exchange rate is implied by the inflation targeting framework, the Central Bank has intervened on foreign exchange markets and accumulated reserves, and this has prevented a more substantial real appreciation. Inflation has declined and remains within the target range. Given the overall consistency of monetary and exchange rate policy, the focus could be on the microeconomic reforms to improve competitiveness.

Colombia has advanced towards a competitiveness agenda, aware that faster growth is essential to lift more Colombians out of poverty. Progress through the *Agenda Interna* and the *Visión 2019* documents is commendable, but more remains to be done and many efforts remain fragmented. As the country enters into the FTA under fairly inefficient factor and product markets, a complementary agenda is key for the country to reap the benefits of trade integration and further stimulate economic growth.

Productive Infrastructure for Competitiveness. The quantity and quality of productive infrastructure are important determinants of a country's competitiveness. Energy and telecommunications are strategic inputs into many productive sectors, road transport networks play a key role in facilitating the movement of goods along domestic production chains, while quality and efficiency of sea ports, airports, and border crossings play a critical role in enabling flows of international trade.

Colombia has sustained one of the highest levels of infrastructure finance in the Latin American region, with strong participation of public and private sources. Colombia's investments in infrastructure are comparable to those of Chile as well as to middle income countries in East Asia. This is primarily attributable to sustained levels of public investment in the order of 2-3 percent of GDP.

Although a late starter, Colombia has also had one of the largest private capital flows to infrastructure investments in the region, although a high proportion still relies on public sources. To create fiscal space for public sector component of infrastructure finance, fiscal reforms would be the key, as discussed in the "barriers to reform", as well as the "vulnerabilities" chapter below.

Colombia has become an international leader in providing high levels of access to basic social infrastructure. However, it lags behind its peers in the accumulation of productive infrastructure, in particular paved roads. Moreover, Colombia's relative position in productive infrastructure has been deteriorating steadily since the 1960s.

Prices of Colombian infrastructure services are generally competitive, however, quality of some services, especially electricity and transport, lags behind in regional comparisons.

The expected increase in trade flows will add pressures to the transport infrastructure in the country. Some of the expected problems are bottlenecks and missing links in the main corridors (highways, railways and fluvial transportation), as well as in gateways, ports and airports, to which the response is an increase in public or private investments; others are mainly regulatory problems, as in the case of the trucking industry.

Fiscal concerns suggest that cost-effectiveness considerations are critical in any attempt to rank actions on infrastructure; the notes have thus focused on relatively small investments and soft infrastructure measures that can help fostering participation of the private sector, while helping accelerate economic growth.

Achieving the right balance between public and private sectors in partnership for infrastructure investment is always a complex institutional challenge. The energy sector is one example. Pricing policies and new financial instruments can be critical for creating the right incentives for private investment in electricity generation. Assuring property rights of private investors is another area that is key, and past arbitration litigation in Colombia has not sent positive signals to private investors. These institutional innovations take time; however, they are worth the effort to achieve both higher levels and more efficient investment in infrastructure.

The recommendations presented in the notes consist of short- and medium-term actions focused on ten areas: main logistics corridors, ports, cargo terminals and logistics zones,

trucking industry, El Dorado airport, security of energy supply, transmission, energy prices and subsidies, bio-fuels, and private sector participation in distribution.

Enhancing Competitiveness through investment in Science, Technology, and Innovation. In addition to infrastructure improvements in transport and energy, which are meant to secure competitiveness, actions are advisable in areas where competitiveness can be enhanced. Science, technology and innovation (STI) play an important role in making modern societies more competitive, and often have direct effects on the quality of life of broad segments of their population.

The Colombian National Innovation System is fairly comprehensive and encompasses well-developed firms, individuals, government programs and institutions. The public research system comprises ministries, oversight, tertiary education institutions, sector research centers and technology centers. Even though Colombia has innovative firms in several economic sectors, the country underperforms on innovation outcomes.

Total investment in technology and R&D is low and unstable. Private sector capacity and spending in R&D is limited and the scientific and technological base is insufficient, and public governance of the Innovation System seems out of touch with needs for increased emphasis and coordination. Furthermore, while Colombia's quality certification diffusion is exemplary, its system for accreditation is afflicted with an unclear division of tasks between institutions, and an institutional setup that may limit its objectivity and internationalization.

Given this overview, actions are recommended along three priority areas: (i) define a STI strategy and increase the importance of STI agencies in policy making; (ii) strengthen public-private partnerships through enhancement of policies, such as the creation of guidelines for division of intellectual property rights and the establishment of funding programs for collaborative research between firms and public research centers, and (iii) accelerate investments in human capital, with special emphasis on an international evaluation and scaling-up of the national doctoral programs. Naturally, before students can aspire to doctoral programs, they need to complete primary, secondary and tertiary education. Successful expansion of these opportunities thus requires reforms of the education sector discussed above.

Making the Rural Sector more competitive. In Colombia, further development of the rural sector is also central to the competitiveness agenda. The rural sector has enormous growth potential and can contribute to rural poverty reduction and national political stability. This potential, however, has long been overlooked. Increased trade opening deriving from international treaties presents new challenges and opportunities for making use of this potential. An agricultural take-off based on Colombia's comparative advantage in labor-intensive agricultural activities would strongly affect employment and wages, and thus could have a great impact on rural poverty. The new opportunities could benefit both large and small scale agriculture; the key challenge being to effectively connect small farmers with the opening of opportunities for rural competitiveness.

On the one hand, open trade opens new prospects for products with a comparative advantage, from which the poorest rural sectors may benefit. On the other hand, it subjects importable products to greater competitiveness, from which negative effects may result if there is no increase in domestic competitiveness and no production reorientation. Taking

advantage of export opportunities, improving competitiveness, and reorienting production require a strong *Internal Agenda* [6] .

Three aspects are brought up for consideration to enrich this Agenda: (i) restructuring and increasing public agricultural expenditure, focusing it on the provision of public goods instead of private subsidies and reorienting them to benefit small farmers; (ii) reorienting the system of policy incentives in favor of products with a competitive advantage and export potential, in a manner that may benefit small producers, which requires greater efficiency in factor and product markets; and (iii) correcting the agricultural sector bias of rural policy toward a policy focused on territorial competitiveness that would include not only agriculture but the entire rural economy. In addition, the rural economy can be strengthened by improvements in the business climate for non-farm activities in rural areas. The broader business climate agenda is critical in rural, as well as urban areas.

In addition, an effective insertion of Colombian agricultural products into recently opened markets requires preparation in several areas, including achieving the necessary sanitary standards to comply with the regulations of the trading partners. The eventual approval of the Free Trade Agreement with the United States adds urgency for policies focused on small-scale farmers that may face competitiveness handicaps and need assistance with adjusting to the new environment.

A healthy Financial Sector as a key to growth. A healthy and robust financial system where credit is both available and affordable is an essential element for investment, growth, and competitiveness. Improved legal and regulatory frameworks, better supervision capabilities as well as the overall positive macroeconomic conditions enjoyed by the country in the last five years have contributed to strengthen the financial sector.

In particular, the banking sector, having been severely affected by the financial crisis of the late 1990s, has recovered both from the prudential and profitability angles. With issues of stability mostly addressed, the main policy challenge now is to foster increased deepening of the financial sector as large segments of the economy remain with limited access to financial services and the financial sector has increased its exposure to the government at the expense of intermediation towards the private sector.

The need for deepening is highlighted by the fact that the financial system's credit to Colombia's private sector dropped steadily from 27 percent of GDP in 2000 to 23 percent in 2004. Though this level is higher than several Latin American peers such as Peru or Mexico, Colombia still trails behind Chile (63 percent) and Brazil (35 percent). As a share of total domestic credit, claims on the private sector fell from 75 percent in 2000 to 67 percent in 2004, reflecting the credit expansion to the public sector.

This stalling in the development of the financial sector is particularly acute in the housing finance area. The total mortgage portfolio of banks stands at about 6 percent of GDP, about

[6] The Government of Colombia, under the coordination of the DNP, is preparing a policy strategy aimed at strengthening the competitiveness of Colombia's economy. This exercise is known as the *Internal Agenda.*

half of the level where it was before the crisis of the late 1990s. Despite a recent boom in the construction sector, Colombia still faces a large housing deficit and the financial sector is playing only a very limited role in providing financing for new construction.

Furthermore, disintermediation is evident from a slight decline in the prevalence of bank accounts: in 2003, there were 28.0 savings accounts and 4.4 current accounts per 100 people in Colombia, down from 30.5 and 4.7, respectively, in 2000. In addition, cash in circulation (held by the public) has increased, from 48.5 percent of the monetary base in 1998 to 70.8 percent in 2003. This figure is extraordinarily high by regional standards.

Beneficial policies in this area would concentrate on seeking to remove barriers to lowering the costs associated with financial sector activities, while ensuring that supervision continues to anchor financial sector growth on solid foundations. This includes reviewing the impact that the tax on financial transactions is having on financial sector development as well as the effect that interest rate caps and bankruptcy procedures has had on the supply of credit.

As the sector seeks to diversify itself beyond the preponderance of banking as the key intermediation mechanism, the government could continue to foster transparency and competition among administrators of the private pension system, develop an adequate regulatory framework for providers of annuities during the payout phase of pensions, and implement the recently enacted legal reforms seeking to promote the growth of local capital markets.

As the financial system continues to move away from specialization and towards consolidation into conglomerates providing all types of financial services, to fully reap the benefits of the creation of the *Superintendencia Financiera*, further progress is necessary in the development of consolidated supervision of these conglomerates.

Improving the environment for investment. Investment is not only constrained by the availability of financial intermediation; there are other factors that affect the investment climate that could be taken into consideration as part of the competitiveness agenda. The government is fully aware of these factors and is taking important steps in the right direction.

These steps include the pursuit of the long-term objective of greater policy stability. The recent "Legal Stability Law" is an important step, albeit at the cost of abandoning a level playing field for all. Initiatives like the *Agenda Interna* are aimed at wide consultations with the private sector and other stakeholders on a variety of issues that have implications for future economic legislation. Through DNP and the Ministry of Industry and Commerce, the government is working with representatives of the productive sectors on agreements on the way forward to improve competitiveness.

Important activities are also under way to reduce red-tape, including the recent approval of the *Ley Anti-Trámites,* or anti-red tape law, the creation of one-stop shops to streamline bureaucratic procedures, administrative simplification efforts in foreign trade and social protection, among others.

Informality and unfair competition, however, remain substantial problems stemming from multiple sources, including the heavy tax burden, labor market rigidities, and others. Policies aimed at broadening the tax base and reducing rates may have a positive impact on reducing informality, as well as those that would prevent adjustments to the minimum wage that exceed price and productivity growth.

More profound changes in the legislation aimed at enabling greater flexibility are required as well. Finally, a more coordinated effort between the tax administration and other agencies involved in fighting contraband and money laundering could be pursued. These are linked to broader efforts to improve governance, discussed earlier in this document.

Reducing Vulnerabilities

As seen above, Colombia has advanced in substantial ways over the last few years. However, attention must be paid to prevent stalling, or even reversal, in some of the development gains that have been achieved with so much effort. The country is still vulnerable in several fronts and requires a stronger line of defense against existing risks, including fiscal, natural, and social. Although no policy or set of policies will eliminate risks altogether, precautionary measures can go a long way in buffering their effects.

Fiscal Sustainability. Colombia has managed to strengthen is fiscal stance over the last few years, to the point of achieving a zero deficit in 2005[7]. This is remarkable given the Bank's assessment of the fiscal outlook in 2002, when the new government faced a serious threat of a macroeconomic crisis stemming from persistent fiscal imbalances, a rapidly growing public debt and a high share of external financing. As part of that assessment, an analysis was prepared comparing Colombia's fiscal and external sustainability to Argentina, which had just entered a severe economic crisis. Would Colombia be next?

Since then public sector balances have improved substantially, and the net public debt to GDP ratio has declined from 54 percent in 2002 to less than 43 percent at the end of 2005. The public sector liability from the pension system has also declined from 191 percent of GDP to 148 percent of GDP, thanks to two sets of reforms. The simulations conducted in the World Bank's most recent Country Economic Memorandum establish that a consolidated government primary surplus of 2.1 percent of GDP is needed to lower the public debt ratio to 38 percent of GDP by 2015.

Despite recent progress, the government will face a challenge to continue this favorable trend, as temporary tax and intergovernmental transfer arrangements expire over 2006-2008. In addition, the favorable external environment has helped spur strong economic growth over the last years, and growth greatly facilitates fiscal adjustment.

As mentioned earlier in this note, comprehensive tax reform and greater expenditure flexibility would be key elements for continued fiscal sustainability. Two substantial benefits for the next generation of Colombians would be a much lower risk of the economic

[7] Preliminary data

crises that reverse progress in poverty reduction, and secondly, the freeing up of substantial resources now devoted to debt service. These additional resources could finance some of the improvements in infrastructure and social programs mentioned in the preceding sections.

Natural and social risk management. Reversals in gains in poverty reduction and growth can arise from other, more tangible and yet more unpredictable risks, such as natural disasters. Colombia has had its fair share of major disasters; in the last 25 years, the country has suffered from six major earthquakes, three volcanic eruptions, major landslides and avalanches and extensive flooding.

Estimates show that more than 4 million Colombians were affected by major disasters between 1993 and 2000, while the estimated cost of the most significant Colombian disaster in the last 25 years (the *Eje Cafetero* earthquake in 1998) is close to US$1,600 million, the equivalent of 2.2 percent of that year's GDP. Studies also show that events related to the *El Niño* phenomenon caused losses in Colombia of about US$564 million between 1997 and 1998.

Colombia is also affected by recurrent 'minor' disasters, triggered by persistent phenomena such as landslides, floods, forest fires and droughts. Although rarely present on national statistics, these smaller but frequent events chronically and negatively impact development at the local and sub-national levels and affect the low-income socioeconomic strata of the population.

The best way to reduce the potential costs of natural disasters is to mainstream natural disaster risk management into the development process. The country could modernize the legislation guiding the activities of the National System for Disaster Prevention and Response (SNPAD) and redirect its primary focus from emergency response to a more comprehensive risk management approach. Its policies could be adapted to improve the effectiveness of the State's actions through the definition of an efficient and sustainable risk reduction and risk financing strategy. Experience with collective insurance for the protection of private assets has been valuable and could be promoted further.

To achieve these objectives, possible actions have been identified around three key objectives: (i) Updating legislation to modernize and strengthen the existing institutional framework, with emphasis on risk reduction as a fundamental mandate of the SNAPD; (ii) Defining a disaster vulnerability reduction strategy that prioritizes and facilitates the integration of hazard risk management in territorial planning processes; and (iii) Developing a comprehensive risk financing strategy.

Finally, advances in poverty and inequality reduction can be reversed in the absence of an adequate social risk management system that would protect vulnerable groups from economic shocks. The 1998/99 economic crisis, the worst in over 70 years, had major and long-lasting effects on poverty and unemployment, and sounded a wake-up call to the Government of Colombia to develop a social risk management strategy to protect its citizens from the worst consequences of occupation, employment, and health risks, old age indigence, and chronic poverty.

Indeed, since 2002, the Government of Colombia has made significant progress in developing and institutionalizing a Social Protection System, led by the newly consolidated

Ministry of Social Protection. A tough labor law was passed in December 2002, contributing to a decline in unemployment rates (to 12 percent, down from 20 percent in 2000), higher wages, less underemployment, and lower entry to informal sector jobs. Access to social insurance has also increased: affiliation to worker's health insurance (Contributory Regime) has risen by 13 percent; 16 percent more workers have occupational hazard insurance; non-contributory health insurance covers 16 million (from 10 million in 2002); and the pilot unemployment insurance program exhausts its budget annually.

Social insurance has also been expanded: through the new program for the elderly (distributing benefits to 190,000 annually), a new program for 0-7 year old children (reaching 1 million by 2006), and the *Familias en Acción* cash transfer program (reaching 400,000 families, up from 340,000 in 2002). These programs have been accompanied by a growing M&E program, enabling improved results management of the policies and program implementation.

Despite considerable progress, however, the Government faces a number of ongoing and emerging challenges in fulfilling its social risk management agenda. In particular, the Social Protection System still lacks a coherent framework and an accompanying institutional structure for its implementation. While many strong and independent social protection implementing agencies exist, they do not provide integrated services, leading to duplication, inefficiency, and incomplete coverage. The lack of institutional coordination is particularly acute in the case of social assistance programs.

The counter-cyclical role of a Social Protection System – a concept in vogue in the post-crisis period – also needs to be revived since crises are likely to occur again. Moreover, in the short run, the FTA is expected to have adverse impacts on certain segments of the population; now is the time to prepare for this "shock" and the economic adjustments that will need to accompany it. In the longer run, plans for counter-cyclical financing of social protection and creation of a skeleton safety net that can be expanded in times of crises are crucial.

In terms of coverage, while more Colombians have access to social insurance and social assistance than in 2002, there are still significant gaps in protection. This is partly due to the tight linkage between delivery of social services and formal labor market participation and partly due to the difficulty in finding resources and channels to access the most excluded – young children, indigenous, elderly, and displaced populations. Expanding coverage will require improved tax collection and a better allocation of resources toward those insurance and assistance programs that most benefit the population.

In this context, four priority areas have been identified which can be instrumental to the incoming administration to fulfilling this agenda, including actions to: (i) strengthen the System's coherence and efficiency, (ii) increase coverage among unprotected groups, (iii) respond to changing economic circumstances, and (iv) address social protection financing challenges. While this would primarily be under the direction of the Ministry of Social Protection and the Department of Planning, it will be important to forge partnerships with the other Ministries and institutions that form part of a coherent Social Protection System.

An Agenda for Reform

All of the issues discussed above, as well as many others that are part of the *Visión 2019* agenda, present the incoming administration with a wide array of policy alternatives that will need to be prioritized. Each of the individual policy notes contains a reform agenda for its corresponding sector, but there are certain fundamental policy actions that are needed to establish an enabling environment for others to take place. The following policy actions are considered of high importance in this regard:

In the Short-Run (first 100 days): Approval of the Free Trade Agreement with the U.S.;

In the Medium-Term (first year): A structural reform of the tax code and a new regime for sub-national transfers;

In the Long-Run (four years): (i) Public administration reforms for coordination, efficiency, and governance – including greater flexibility in expenditure decisions. (ii) Improve the quality of education and improve, in particular, the educational attainment of the extreme poor and disadvantaged ethnic groups. (iii) Re-establish government services in post-conflict zones and successfully reincorporate displaced persons and demobilized combatants into society.

To assist the incoming administration in the complex task of priority setting and making trade offs, the team preparing these Notes also engaged in a priority setting exercise, using the following criteria to choose from the long list of recommendations emanating from the collection of Notes: (i) fiscal viability; (ii) relevance/consistency with the *Vision 2019*; (iii) broad recognition in Colombia of the importance of the issue; (iv) degree of preparation of existing policy proposals (e.g., are concrete proposals already prepared and under debate); and (v) focus on segments of the population below the extreme poverty line. Ratings were given on each of these components and scores were added up.

It turns out that the six recommendations listed above also appeared among the top items resulting from this exercise. In addition, the following policy reforms were identified: (i) Implement the affirmative action policy outlined in COPNES 3310; (ii) Support the commitment of five Departments to achieve universal insurance coverage); (iii) Promote more efficient operation of factor markets and rural product markets, especially to benefit small farmers; (iv) Improve monitoring and evaluation systems via the full implementation of CONPES 3294; (v) Improve inter-institutional coordination of the Social Protection System as outlined in CONPES documents; (vi) Improve social safety net provisions for small scale producers that may be affected by the FTA; (vii) Improve the targeting of social spending in those programs where the current structure is either regressive or not pro-poor; and (viii) Expand *Familias en Acción.*

The priorities we offer here are clearly subject to debate. In the end, it is Colombian society, through its political institutions that will determine the path of policy reforms in the coming years.

Conclusions

This document has highlighted some of the key areas that the World Bank considers important for the policy agenda during the next four years. Many of these are reflected in documents such as *Colombia 2019*, and are the subject of ongoing debate in Colombia.

As surely has happened in the preparation of *Colombia 2019* and other government initiatives, the preparation of these notes saw many issues being raised by certain sectors to which other sectors may hold the key to resolve, or at least help address or inform. It has been an interesting process where the potential for increased synergy and collaboration across sectors has shown its true dimension. As concluding remarks, we offer some of the areas where this potential was most clearly seen in these notes.

- *Monitoring and Evaluation for the social sectors.* M&E has come up as an essential element for improving public sector delivery. A particularly strong case was made for the education sector, where improvements in quality are very important in the agenda. The M&E efforts, mainly driven by SINERGIA, need a strong counterpart at the level of each sector institution under a coherent framework that ensures vertical consistency. There are ongoing efforts in the Ministry of Social Protection where particular attention can be directed in order to establish good practices across the public sector, and the Ministry of Education could capitalize further on this experience.

- *Improving the investment climate through more transparent government.* Initiatives towards a transparency agenda can have substantial repercussions in investor confidence. Expanding actions in areas such as access to information and promotion of e-government would have direct effects on investment, growth, and competitiveness. The governance agenda is, therefore, a key component of a broader competitiveness agenda.

- *Enhancing investment in people by adding flexibility to the fiscal framework.* Initiatives to reduce rigidities in public expenditure and liberating the full potential of revenue sources are necessary conditions for raising the levels of investment in people, and therefore, to achieve social and economic objectives. How far could health and education coverage, for example, be expanded if inefficient earmarked revenues or permanent expenditure entitlements were eliminated?

- *Investing in people: Key element of the competitiveness agenda.* Are Colombian youth equipped to face a competitive and integrated world? The new paradigm of open trade places new demands on the quality and coverage of educational and other social services. A quantum leap in educational quality, for example, would have long-term positive impacts on Colombia's competitive position in the markets, both regionally and globally.

- *Environmental degradation as a deterrent to long-run competitiveness.* The health effects of environmental degradation, particularly on the young, are real and substantial. Undertaking relatively simple and cost-effective actions can have important long-run effects on human capital; the protection of children through

fairly simple actions can have major repercussions in the quality of the labor force.

Major advances towards achieving faster and sustained growth and reduced poverty and inequality can realistically be achieved over the next four years. Even with this *window of opportunity*, hard work and commitment will be required for carrying them out. As always, The World Bank stands ready to support this effort in every way it can.

Taxing and Spending in Colombia: Reducing Fiscal Rigidities to Enhance Equitable Growth[8]

Abstract: Government spending can either inhibit or enhance economic growth and the pattern of spending can impact the distribution of the fruits of growth. The same is clearly true for the case of taxes. The structure of taxes has a clear impact on competitiveness, and the relative tax burden has an impact on the distribution of income. Both spending and taxes have a direct impact on opportunities for citizens to participate in, and contribute to, economic growth.

While other notes address the specifics of sectoral spending, this note provides an overview of aggregate government spending, the structure of spending and the structure and level of taxation – all from an international perspective. Historically, the size of government consumption as a share of GDP was somewhat lower than the average for Latin America and the Caribbean; however, this changed during the 1990s. Despite a slight decline in government consumption to GDP in recent years, most fiscal adjustment has occurred on the tax side.

Restraining the growth of government consumption, and in particular the wage bill, can help improve the growth enhancing role of government spending. While broadly redistributive, social spending could become more targeted to meet equity objectives. On the tax side, broadening the base of the VAT and income tax, reducing exemptions, and eliminating the financial transactions tax are key reforms to improve the efficiency of the tax system. Strengthening the ability of territorial governments to raise their own revenues would also improve the accountability of these governments to their citizens, and thus increase the incentive for more efficient expenditures at the sub-national level.

[8] This chapter was written by Christian Gonzalez with the collaboration of Mauricio Carrisoza and Steve Webb.

At the time that the note was written, the government submitted to Congress a fundamental tax reform that is fiscally neutral and generally consistent with the proposals in this note. The reform intends to simplify the tax code, to encourage companies to invest and to raise the number of people paying taxes. The tax bill cuts the corporate tax rate from 38.5 percent to 33 percent in 2007 and to 32 percent in 2008. The government plans to eliminate exemptions so that companies pay the same rate, reduce the income tax paid by the individuals, and expand the base of the VAT. Poorer groups would be compensated for the higher VAT tax bill by a new transfer payment. With the tax reform, the government expects to collect 15.8 percent of GDP in tax revenues.

Introduction

The 2002 Policy Notes provided an overview of public expenditure and tax issues in two separate notes. Here we update the status briefly in a joint note. There have been a number of changes in the structure of both public expenditures and taxes over the last few years. The Bank has analyzed these developments in a number of documents, most notably the 2005 Public Expenditure Review and the 2005 Country Economic Memorandum. This note makes use of these past analyses in summarizing the key policy issues facing Colombia in 2006.

Since 2002, the government has reduced the relative importance of two large categories of the central government's budget: intergovernmental transfers and pensions. The former was based on a reform that de-linked transfers from current revenues and limited their real growth to 2 percent over 2002-2005 and 2.5 percent during 2006-2008. Since real GDP growth has been above this level, and current revenues have grown even faster than GDP, the intergovernmental transfer share of the central government budget fell from about 26 percent in 2002 to 24 percent in 2005. A more lasting reform is required in the coming years, as discussed below. While the reduction in the transfer share of spending was immediate and temporary, the reduction in pension expenditures is medium-term and permanent, as discussed below. In both cases, some much needed fiscal flexibility is introduced by these reforms on the expenditure side. Part of the "saving" was used for deficit reduction, as discussed in the policy note on fiscal sustainability. It should be noted that public sector pensions are one of the least equitably distributed programs in the government budget.

On the revenue side, the government has increased tax revenues as a share of GDP since 2002 through a combination of improved tax administration, tax rate increases and the creation of new taxes like the financial transactions tax and the temporary wealth tax. As in the case of the expenditure reforms, the increase in revenues as a share of GDP contributed to lowering the fiscal deficit. Most of the tax measures expire over the next two years. The increasingly ad hoc nature of the tax system that has emerged leads to additional costs for businesses that inhibit Colombia's competitiveness and resulting economic growth.

The Colombian government is cognizant of the need to reduce fiscal rigidities, so that government spending and taxing can be managed to improve the prospects for equitable

growth. These issues are clearly addressed in the Colombia Vision 2019 document. These macro level reforms are needed to create the fiscal space for many of the sectoral reforms discussed in other chapters of this report.

Background: Expansion of the public sector in the 1990s

Colombia began the 1990s with a relatively small state and ended the decade with a comparatively large one. General Government Consumption[9] grew from an average of about 7 percent of GDP during the 1960s and 10 percent of GDP between 1970 and 1993, to an average of 19.8 percent during 1994-2004 (Figure 1). As a proportion of total consumption, the public sector accounted for 12.5 percent prior to 1993, but grew to 21 percent by 1994-2001. Total expenditures of the non financial public sector (NFPS) went from 24 percent of GDP in 1990 to 36.5 percent in 1999. Colombia's public sector (as measured by per capita government consumption) was, in 2001, significantly above the level predicted by the country's per capita income level, as derived from the stable and robust cross-country relationship[10]. This can be interpreted as an excess of observed public consumption over a "notional" demand measure or, more practically, as other countries providing public services at a lower cost.

Colombia's deteriorating growth performance during the 1990s has been linked to excessive growth in public expenditures. A Bank cross-country study of economic growth in Latin America identified Government consumption – a proxy for the burden that Government may represent for private activity—as a source for declining growth during the 1990s[11]. Another study[12] finds that excessive public expenditure has contributed to the decline in Colombia's rate of growth.

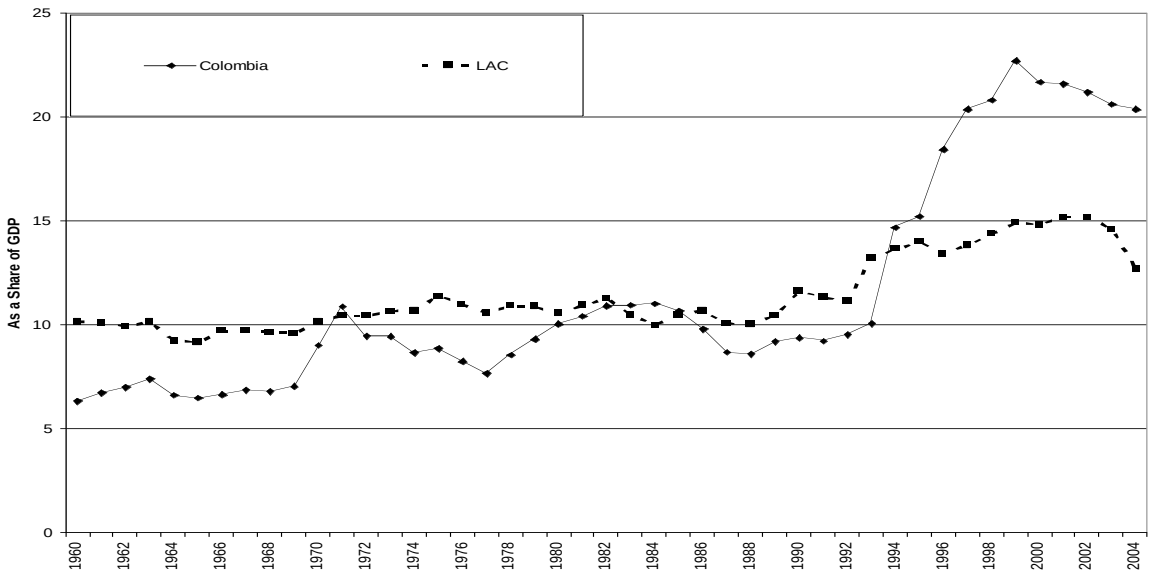
While the converse may or may not be true—that is, that lower government spending will increase growth--it is possible that public service levels could be maintained at a lower cost. These efficiency gains, especially in terms of government consumptions, could be used in various ways: lower the tax burden, increase targeted social programs or expand public investment in key areas identified to increase the potential for economic growth. In a cross-country perspective, other countries managed to provide public services with lower overall public expenditures. To give two successful examples, the governments of Chile and Mexico consume respectively 11.6 percent and 10.3 percent of GDP, about half of the level in Colombia.

During the Uribe administration public spending has been gradually declining. Nevertheless, the size of the public sector it is still large by international standards. It is not

[9] General Government Consumption is a national accounts measure that allows for international comparisons. It is "a measure of the size of government, not of the entire public sector. In national accounts, government consumption is the sum of all goods and services provided without charge to individual households and collectively to the community. It includes goods and services purchased from the private sector as well as those produced by the government, so it is not directly related to government employment." See United Nations (2000).
[10] See World Bank (2005a).
[11] See Loayza, Fajnzilber, and Calderon (2002).
[12] Posada and Escobar (2003).

the purpose of this report to establish what should be the optimal size of the public sector, but to show some options on how it can improve its composition.

Figure 1. Colombia and Latin America: General Government Consumption/GDP



Source: World Bank

Budget rigidities

Colombia's budget is very rigid, and the two main areas in which expenditures increased substantially during the 1990s were transfers to sub-national governments and to the pension system, discussed below[13]. Transfers to the pension system have continued to increase over the past two years, a trend that will continue until 2013 under the current rules, after which the deficits will decline gradually over a generation as those in the old system retire and die. The new system has individual accounts and is sustainable; the fiscal problem is in the long and costly transition. Getting over this hump has been encumbered by legislative and judicial interventions that extend and further soften the transition period, and such backtracking could happen again.

In addition to transfers, the Colombian budget system must also absorb a number of earmarked revenues and minimum expenditure mandates stemming from laws. According to some estimates, there are six laws that earmark revenues from current expenditure items, seven for capital expenditures, and forty-eight that establish special funds for specific purposes. These revenue earmarks used up over 21 percent of total central government revenues in 2004[14]. Summing up public sector wages, debt service, and other legally mandated expenditures, about 96 percent of the budget is compromised. While this is a

[13] See Perry (2005).
[14] Ministry of Finance and Public Credit, Budget Directorate own estimation.

common problem in many countries, some other countries do manage to keep these ratio down to the 80 to 85 percent range.

The broad loopholes in the legal framework have allowed public agencies to seek legislation and earmark resources. This has made the budget extremely rigid, and left the Government almost no flexibility in allocating public resources. This budgetary rigidity limits the Government's planning flexibility, and makes it difficult to undertake new programs or capital investments[15].

In addition, several key technical elements of the budget process need to be adjusted as part of the reform process. Social expenditure is highly favored over other types of expenditure. Its implementation is subject to laxer controls thereby encouraging its growth. This situation is particularly worrisome in light of the fact that the definition of "social expenditure" that is found in the current legislation is so broad that virtually any type of expenditure can qualify as "social." Although the Constitution expressly forbids the earmarking of revenue, it gives an exception to those for social expenditure. As a result most of the current earmarking laws have found a way to easily fit within this very broad definition.

As mentioned in the Colombia Public Expenditure Review[16], a "tax" on "inflexible expenditures" such as the one that Brazil implemented several years ago is a short to medium-term option to obtain more aggregate flexibility. Under such an option, the Government would be entitled to proportionally reduce mandated expenditures up to a predefined percentage in order to ensure fiscal sustainability.

The proposed Organic Budget Code was expected to reduce inflexibilities in the budget by 0.51 percent of GDP in 2006, accumulating to an overall 0.88 percent of GDP by 2009[17]. Nevertheless, the law was archived in Congress, and the Ministry of Finance had to implement a decree which reduced some of these rigidities. The decree mandates that by June 30th the Ministry of Finance will need to have a medium-term expenditure framework that will serve as a catalyst to discuss real budget priorities and could transform the annual budget law into an effective policy implementation tool. Also, the decree establishes that the budget is no longer an automatic authorization for spending agencies to commit up to the appropriated amount. Despite that the decree reduced substantially some of these rigidities, it will be important that the next administration makes further reductions perhaps through another Organic Budget Code .

Pensions

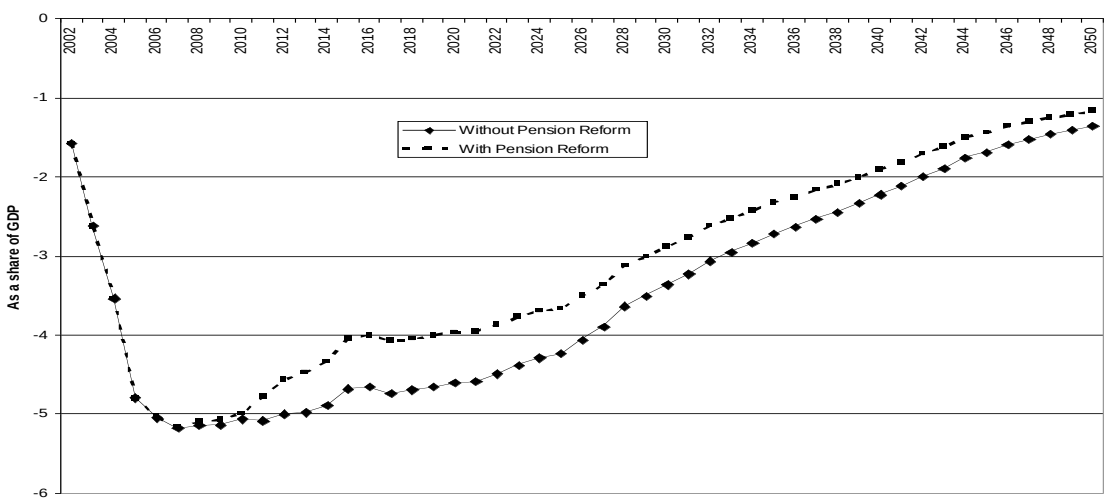
Colombia has a constitutionally mandated pay-as-you-go pension system managed through the *Instituto de Seguridad Social* (ISS). Although the system underwent reforms in 1993 through Law 100, it is still generating major deficits that need to be covered through large central government transfers. Law 100 addressed issues of low contributions and overly generous retirement benefits; however, it did not take into consideration demographic

[15] See World Bank (2005b).
[16] World Bank (2005a).
[17] Directorate of Budget, Ministry of Finance and Public Credit own estimate.

changes (it calculated an average payout lifetime of 15 years, which has now reached close to 26 years), and it did not eliminate a number of very expensive special regimes. Over the last five years, average contributions to the system have remained constant at 1.1 percent of GDP, while payouts have been increasing from 4.4 percent of GDP in 2000 to 5.7 percent in 2004.

In 2005, Congress approved a constitutional amendment to make the pension system more sustainable. Among the key elements of this reform are the following: (a) introduction of a mandate of financial sustainability of the pension system into the Constitution, (b) elimination of special regimes, (c) ineligibility of negotiating pension issues in collective bargaining agreements; (d) elimination of the 14th salary (*mesada 14*), and (e) a cap on individual pension entitlements equivalent to 25 minimum wages. The government estimates that these measures will reduce future pension system imbalances significantly; namely, a reduction of about 19 percent of GDP in the net present value of the accumulated future deficits. The net present value of the contingent stock is now estimated to be about 148 percent of GDP. This reform made some improvements to the pension system. Nevertheless, for the next 15 years the cash flow deficit will remain at about 4 percent of GDP, which is high and will continue to create significantly pressure over the central government's finances unless further reform is undertaken.

Figure 2. Social Security Operational Balance



Source: Departamento Nacional de Planeación (DNP)

Sub-national transfers

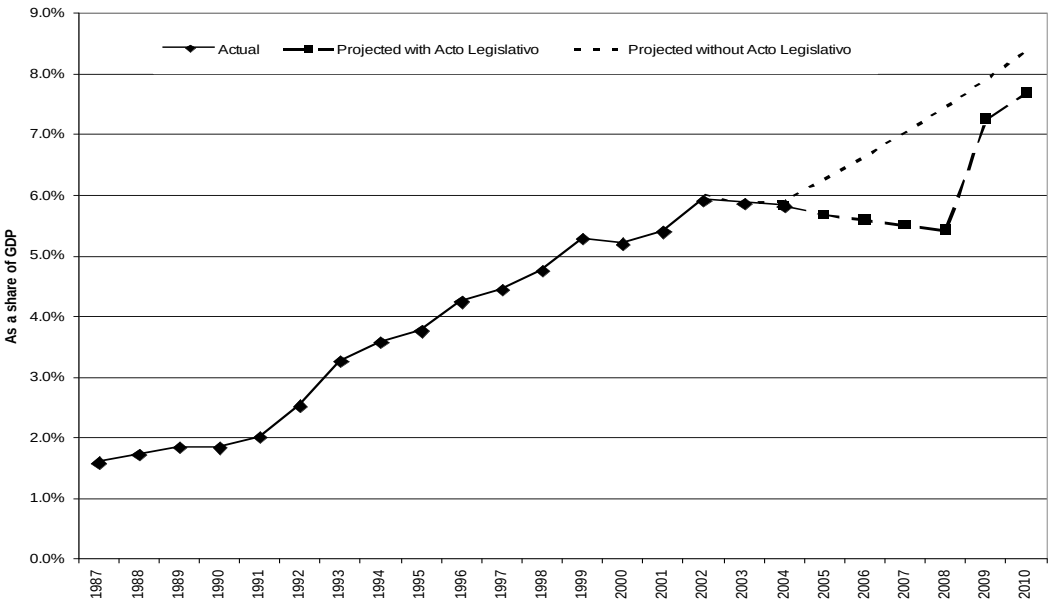
The sub-national (local) governments in Colombia—departments, municipalities, and special districts—affect the national fiscal picture through two channels: (a) the transfers that they receive from the national central government budget, and (b) their own fiscal balances. The 2001 constitutional reform temporarily de-linked transfers from national current revenues and put them on a more sustainable path, and thus limited the growth of central administration outlays (*gastos generales*)[18]. The reform combined the three main transfers, which had grown and proliferated since the 1991 Constitution, into a single *Sistema General de Participaciones*. In the transition, the *Participaciones* would grow at 2 percent in real terms during 2002–05 and at 2.5 percent during 2006–08[19]. In 2009 sub-national governments will receive the same amount of transfers they received in 2001—in other words, about 40 percent of current revenues, or about 7.3 percent of GDP. After 2010 the increase in *Participaciones* will equal the average growth of the central administration's current revenue during the previous four years. It was expected that the transfers would decline from about 6 percent of GDP in 2002 to about 5.4 percent of GDP in 2008. This trend is displayed in Figure 3, which compares the revenue shares under the current and previous rules. Although, the *Acto Legislativo* has been able to save on average about a percentage point of GDP, in 2009 there could be significant pressure on the central government because transfers to sub-national governments would have to increase from about 5.4 percent of GDP in 2008 to about 7.3 percent of GDP in 2009. Therefore, a priority in the Fiscal Agenda would be to change this provision in the law in such a way that transfers to sub-national governments are kept constant in real terms after 2008. To preserve this fiscal breathing room for itself, the central government will resist pressure to expand transfer programs, as happened in the 1990s. This should be easier if the departments and municipalities with major expenditure responsibilities are given more of a tax base of their own, and restraining transfers will create incentives for the local governments to use their tax bases.

The decentralization process in Colombia according to several reports has brought a mixed bag of results. Increasing transfers to sub-national governments will not necessarily improve public services. There have been some very good and progressive social programs such as *Familias en Acción* that sub-national governments want to manage in the future. Meanwhile, this program has been effectively managed by the central government. A possibility is that the central government could bargain with the different departments to refrain from the return to the old transfer amount in exchange for expanded coverage of *Familias* (with continued central government administration of this program).

[18] The limits on the central administration's operational expenditures have been: (a) 1.5 percent real growth for 2002–08, and (b) thereafter a growth rate equal to the moving average growth of current revenues for the previous four years.

[19] If real GDP growth exceeds 4 percent in any transition year, *participaciones* would increase proportionately, but only after adjusting for the years when real GDP grew more slowly than *participaciones*.

Figure 3. Sub-national Transfers, Actual and Counterfactual



Note: *From 1996 to 2001, actual transfers include the extraordinary transfers that sub-national governments received during that period.*
Sources: *Departamento Nacional de Planeación (DNP) and World Bank calculations.*

Equity of government spending

Social spending in Colombia represents about 40 percent of the budget and it is broadly redistributive. Lasso (2004) estimates that total social spending has the net impact of lowering the gini coefficient of household income by 4.9 percentage points. There is great variation across programs or subsectors. For example, within the education sector, Lasso (2004) estimates that 37 percent of primary education spending goes to the bottom quintile of the distribution of income, while 42 percent of tertiary education spending goes to the *top* quintile. There are other unusual patterns. For example, in the infrastructure sectors, the top quintile makes a net contribution through payment for services, while the top net beneficiary is the second to highest quintile. Pension payments have a negative impact on income distribution. Only 0.3 percent of the net benefits go to the bottom quintile while nearly 80 percent accrue to the top quintile.

A more equitable distribution of government spending can have a direct impact on poverty reduction; however, it may also contribute to poverty reduction indirectly through increasing economic growth. For example, increasing the bottom quintiles access to tertiary education could increase long run economic growth. Naturally, achieving this is a complex process, since one must increase the rate of graduation from both primary and secondary levels for more poor children to reach the tertiary level. In any case, it is one example of the potential complementarity between targeting of social spending and long-run economic growth, closing the "virtuous circle" of growth and poverty reduction.

Tax policy

Colombia's main taxes today include the income, value added (VAT), import, and social security taxes at the national level; excises on liquor, beer and cigarettes at the departmental level; and property and business taxes (*industria y comercio*) at the municipal level. These main taxes amounted to 16.1 percent of GDP, out of total taxation of 19.7 percent of GDP, in 2002. There is also a national gasoline tax with surcharges for both departments and municipalities[20]. In addition, there are three off-budget (parafiscales) earmarked payroll taxes: 2 percent for the National Training Service (*Servicio Nacional de Apremdizaje*, SENA); 3 percent for childcare (*Instituto Colombiano de Bienestar Familiar,* ICBF); and 4 percent for various family benefits and subsidies (*cajas de compensación*) [21]. The latter are off-budget revenues because, by Constitutional Court interpretation, their earmarked character implies that they should not be included in national current revenues. This interpretation is also applied to Special Funds *(fondos especiales)*, earmarked taxes levied on specific sectors and income from non-renewable resources. The practical implication is that these resources are shielded from intergovernmental transfer rules applied to national current revenues.

Table 2. Central Government Tax Revenue, by Source (percent)

	1990	1995	2000	2001	2002	2003	2004	2005p
Tax Revenue	9.3	9.7	11.2	13.2	13.5	14.0	14.5	15.2
Income tax	3.8	4.0	4.3	5.3	5.3	5.4	6.0	6.2
Value-added tax	2.9	4.1	4.8	5.3	5.3	5.9	5.8	6.3
Net wealth tax	0.0	0.0	0.0	0.0	0.6	0.5	0.2	0.2
Financial transactions Tax	0.0	0.0	0.6	0.8	0.7	0.7	0.9	0.9
Tariffs	1.5	1.0	1.0	1.1	1.0	1.0	0.9	1.0
Gasoline	0.7	0.6	0.5	0.6	0.5	0.5	0.4	0.4
Other	0.4	0.0	0.0	0.0	0.0	0.0	0.3	0.2
Non-tax Revenue	1.0	1.7	2.1	1.7	1.6	1.4	1.2	1.3
Total Revenues	10.3	11.4	13.3	14.9	15.0	15.2	15.7	16.5

Sources: *Dirección de Impuestos y Aduanas Nacionales (DIAN) and World Bank calculations.*

The VAT and income tax, characterized by comparatively high rates from an international perspective (Table 3) and narrow bases, are the most important sources of revenue and contribute equivalent amounts (5.3 percent of GDP each in 2002) to total Central Government revenues. As indicated in Figure 4 for circa 2000 (Colombia's VAT is marked

[20] Other national taxes include the financial transactions and national security taxes; other departmental taxes include levies on motor vehicles (shared with municipalities), notary services, and stamps; other municipal taxes cover public shows (*espectáculos públicos*), sand extraction, urban zoning, and cattle slaughter.

[21] It should be noted that in addition to the taxes mentioned above, Colombians pay a significant amount in other payroll taxes (all in all, a large disincentive for labor supply in the formal sector, despite generous exemptions for labor income under the income tax). Non-wage costs comprise nearly 60 percent of the wage bill, although the contributions to the SENA (*Sistema Nacional de Aprendizaje*; 2 percent of the wage bill), the ICBF (*Instituto Colombiano de Bienestar Familiar*; 3 percent), and the *Cajas de Compensación Familiar* (4 percent of the wage bill) are the categories that can be characterized as pure taxes as they do not directly affect the worker, and thus add (together with special funds and income from non-renewable resources) to overall taxation as a share of GDP. All three contributions are thought to be inefficient even as general services programs.

by the white; its income tax is right on the regression line marked by a white +), income tax collection is at about the regression line in a cross-country income tax log-log regression. VAT collection is below the cross-country goods tax log-log regression. The scatter diagram of international experience suggests that Colombia's collection could be larger for its level of income[22]. All in all, national tax revenues amounted to 13.2 percent of GDP in 2001, slightly below the overall average for Latin America (13.5 percent of GDP); however, the tax take has increased over the last four years, and now stands at 15.2 percent of GDP. Income tax revenues have hovered around 40 percent of total national tax revenues for over a decade, with revenues rising with the approval of tax bills only to fall back a year or two later.

Alternative *systemic approaches to taxation* will combine taxes and public expenditures in various ways to achieve tax productivity, economic efficiency, poverty reduction, and simplicity objectives. A possible approach would combine a broadly-applied and moderately progressive income tax with a flat and broadly applied VAT and with strongly progressive public expenditure, including, if administratively effective, a VAT stamp or reimbursement system based on the Beneficiary Selection System *(Sistema de Selección de Beneficiarios, SISBEN*[23]) to exempt or compensate the poor for the value added taxes they pay. The SISBEN currenty is being strengthened (the "Nuevo SISBEN"), and it is already used to channel household subsidies. A stamp system would be simpler but more susceptible to abuse than a reimbursement system. The approach would improve progressivity, as the richer strata of the population would pay VAT on all goods and services, while the poor would be effectively exempted.

Income tax reform

Broadening the number of taxpayers remains an obvious reform priority for Colombia. Forty years ago, Colombia had some 501,000 corporate (15,000) and individual (486,000) taxpayers[24]. Today, with about 3.5 times the labor force of 1962, Colombia has about 1,175,000 firms and individuals filing income tax-returns. This is a small fraction of the country's 20 million labor force. The Government's tax office is seeking to broaden the filing base to over 2 million, which is its own estimate of the number of people that should be filing income tax (the tax statute indicates that individuals earning more than about US$750 a month need to file). Increasing the coverage of the income tax is important both on neutrality and fairness grounds but also to develop a possible base (the individual income tax) to eventually piggyback marginal sub-national revenues.

Preferential treatments under the income tax significantly erode the tax base. Preferential treatments include entities excluded from the income tax, entities subject to a reduced tax rate, and tax benefits to standard taxpayers (income exclusions, deductions, exempt income, and tax credits). Since the 2002 tax reform[25], the Government now estimates the value of exclusions, special deductions (i.e., those different from costs and taxes), exemptions, and

[22] Note, however, that these comparisons may be compromised by the exclusion of off-budget revenues.
[23] SISBEN is an information system used to target social programs for poverty reduction, including health, education, and housing.
[24] See OAS and IADB (1965).
[25] Zodrow (2003a) discusses the application of tax expenditure analysis to Colombia.

tax credits as part of its annual budget exercise, following the mandate of Article 87 of the 2002 tax reform. In 2003, these amounted, respectively, to 4.8, 17.2, 3.4, and 0.1 percent of GDP[26]. Assuming a 20 percent average income tax rate (the ratio of taxes paid to taxable+exempt income), these treatments had a fiscal cost of 5.2 percent of GDP in 2003.

Salient characteristics of Colombia's *personal income tax* include high tax rates, the importance of tax withholding (*retención en la fuente*), the minimal amounts collected through annual tax returns, and (as indicated above) the large number of taxpayers who remain outside the scope of the personal income tax. First, the maximum personal income tax rate rose from 30 percent in 1990 to 35 percent in 2001 and to 38.5 percent in 2003-2006 (as a result of a 10 percent surcharge introduced by Law 788 of 2002 and extended by the December 2003 tax reform) one of the highest in Latin America (Table II.10). Second, income withholding provides the bulk of the amount levied by the personal income tax—more than 80 percent of the total, with the main sources of withheld income being wages, fees, financial yields, and rents. Third, the revenues obtained through annual tax returns are only between 0.1 and 0.2 percent of GDP, as much income that is not withheld is not reported. Fourth, the threshold for salary exemption is much higher in Colombia than in other developing countries: 97 percent of wage earners are exempted from paying personal income tax as a result of the existing threshold for wage earners (1.7 times the average income of the labor force or C$1.7 million per month, equivalent to 5 minimum monthly salaries). As a result of various rates and thresholds, similar income levels can generate different levels of personal income tax depending on the types of income included in the tax base. There is no reason for differential taxation of different types of labor income.

Table 3. Latin America, USA, Canada, Personal Income Tax Rates (circa 2000)

Country	Lowest	Highest
Argentina	6	35
Bolivia	13	13
Brazil	15	27.5
Canada	17	29
Chile	5	45
Colombia	22	38.5
Costa Rica	10	25
Ecuador	5	25
El Salvador	10	30
Guatemala	15	30
Honduras	10	30
Jamaica	25	25
México	3	32
Paraguay	30	30
Peru	15	30
Dominican Rep.	15	25
Uruguay	30	30
U.S.A.	15	35
Venezuela	6	34

Sources: World Bank, Martindale-Hubell Law Directory (2000), and Bogota Chamber of Commerce

The rate structure (20, 29 and 35 percent) is somewhat unusual in that the lowest non-zero rate is relatively high, while the middle rate is relatively close to the top rate. At 20 percent, the minimum income tax rate for individuals in Colombia is high compared to 5 and 6 percent in Chile and Argentina, respectively, 15 percent in Brazil, Peru, and the U.S., and 17 percent in Spain. At 38.5 percent, the maximum rate is well above the average of maximum rates for a sample of developing and developed countries and well above the average for the large Latin American countries (about 31 percent).

[26] See Ministry of Finance (2004a), Chapter 4, Annex 1.

Serious concerns about the negative effects of high marginal tax rates on individual incentives for labor supply and saving, as well as the incentives high tax rates create for tax avoidance and evasion, imply that the degree of progression in the individual income tax should be modest. *Accordingly, further increases in the top marginal tax rate under the personal income tax, currently at 35 percent (38.5 percent with the new surcharge through 2006), are not advisable. Indeed, the aim should be instead to broaden the base of the personal income tax in order to be able to lower the rate schedule.* In this regard, the recent 2002 reform made only limited progress: the exemption on labor income was reduced from 30 percent to 25 percent. The high corporate rate encourages transfer pricing schemes and other manipulations by multinational firms that reduce Colombian tax revenues. A preferable approach is to expand the corporate income tax base by eliminating more exemptions. To identify the distortions, one can calculate the marginal effective tax rates on various activities, as discussed in the Colombia Country Economic Memorandum (2005). From this analysis follows a number of recommendations for reducing distortions in the corporate income tax. Key recommended policy changes include:

- Tax all forms of labor income when total labor earnings exceed the designated threshold, which could be lowered from the present level of five minimum salaries to four minimum salaries[27].

- Introduce new rates of, for example, 15, 25, and 35 instead of the present rates of 20, 29, and 35. Eventually, a reduction in the maximum rate (say to 25-30 percent) would also be advisable. The Government's recent tax reform proposal (now withdrawn) called for a gradual reduction of the maximum individual tax rate to 32 percent (excluding the surcharge). Low marginal tax rates have the important advantage of reducing the efficiency costs of the distortions imposed by the income tax system, as these efficiency costs increase roughly with the square of the marginal tax rate. Moreover, low rates reduce the tax incentives for individuals and firms to participate in informal rather than formal markets[28].

- Improve compliance and remove excessive incentives for debt finance, by replacing calculation of presumptive income (the minimum income for income tax purposes)—calculated today as 6 percent of net assets—to a lower, say 1.5 percent, of gross assets. This could be linked to present efforts at identifying assets of individuals and businesses that have been outside of the tax system.

- Reduce the depreciation deductions to reduce tax distortions across assets and business subsectors. The depreciation deductions under the income tax are

[27] The Revenue Commission estimates that the elimination of the 30 percent wage exemption would result in an increase in tax revenues of 0.3 percent of GDP, while the reduction of the ceiling of total exempted income from 5 to 4 minimum salaries would bring in an additional 0.2 percent of GDP, for a total increase of half a percentage point. On the other hand, real consumption would decline by a ratio of 1:1 (a one percent increase in revenues would lead to a one percent fall in consumption). The distributive effects would be progressive: the elimination of the 30 percent exemption would largely affect higher income earners, while the reduction of the threshold from 6 to 4 minimum wages would have a greater impact on the middle and higher income strata. In international experience threshold income levels vary all over the place, from zero in several countries (e.g., Argentina, Mexico, Peru) to US$6,800 in Colombia and US$8,940 in Brazil.

[28] In addition, as will be discussed in detail below, low business tax rates have the advantage of reducing incentives for multinationals to use financial accounting techniques to lower their tax liability in Colombia.

relatively generous, because they were initially set high to offset the effect of inflation but not adjusted downward when the tax system was indexed for inflation in 1988[29]. This results in some distortion of the allocation of investment across different types of assets. .

- Fix immediate partial expensing by adding a basis adjustment so that the purchase price of the asset is deducted only once[30]. The granting of immediate partial expensing at a rate of 30 percent for investments in depreciable assets other than structures has a huge effect on their marginal effective tax rates (METR). This is especially true because this investment incentive is inappropriately designed and is thus overly generous, since the tax basis of the asset is not reduced to reflect immediate partial expensing, implying that investors effectively get to deduct 130 percent of the cost of the asset.

There are several options for a fundamental tax reform to be considered: 1) flat tax, 2) dual income tax, 3) consumption tax options and 4) hybrid options[31]. The Flat Tax is a measure along the lines of those adopted in various countries of the former Soviet Union and other countries in transition from socialism. Flat Taxes have important simplicity and efficiency advantages, are less susceptible to evasion and avoidance, and create a relatively favorable investment environment. However, they also tend to result in redistributions of tax burdens from the very wealthy to a broadly defined middle class (the poor are protected with standard deductions and personal exemptions). As a result, enactment of a true Flat Tax would raise serious equity issues, although these might be mitigated if the tax were accompanied by improved enforcement and stronger penalties, designed primarily to improve compliance among the wealthy. In addition, great care must be taken to ensure that revenues do not decline under a Flat Tax.

Another approach, utilized in the Nordic countries (Denmark, Sweden, Finland and Norway) as well as several European countries, is the "dual income tax," so named because labor income is taxed at progressive rates, while a flat tax at a rate equal to the minimum positive tax rate applied to labor income is applied to capital income. The dual income tax represents a compromise between the desire to provide a friendly tax environment for investment and the desire to raise revenues by taxing capital income. Although it has been reasonably successful, it has problems with limiting avoidance in the form of converting highly taxed labor income into capital income that is taxed at a flat rate. In addition, it still imposes an income tax, albeit at a relatively low rate, on saving, investments, and the income earned by highly mobile international capital. Another complication is that, in practice, it has proved difficult to impose the taxation of interest income required under the dual income tax.

Yet another set of options would convert the business income tax to a consumption-based tax. Consumption taxes are differentiated from income taxes primarily in that expensing (or

[29] See Zodrow (2002).
[30] World Bank (2005).
[31] This section on comprehensive tax reform draws heavily on a World Bank Mission Back-to-Office Report by Professor George Zodrow.

its equivalent) rather than deductions for depreciation are allowed for purchases of capital equipment. This generous treatment of investment implies that the normal returns to investment are tax exempt, while above-normal returns are taxed, resulting in a tax system that is very favorable to investments that earn normal profits, while still obtaining some revenue from firms that earn above-normal profits. The cash flow accounting under a consumption-based business tax is also much simpler than the accrual accounting under an income tax. There are a wide variety of ways that such a tax might be implemented. One approach is the Hall-Rabushka cash flow tax outlined above ("Flat Tax"). Although an attractive plan in many ways, the Flat Tax suffers from several serious flaws (beyond any concerns about its "flatness" which can in principle be assuaged by adding a rate or two to the individual tax structure). Most importantly, because it disallows deductions for interest expense, it is highly unlikely that the United States Internal Revenue Service would deem it to be a creditable tax – a problem both because it implies double taxation of above-normal profits earned by US multinationals in Colombia and because it may create the impression that tax system is somehow "defective." In addition, serious avoidance problems are raised because the treatment of interest income and interest expense is so different from that in other nations.

Accordingly, alternative means of implementing a consumption-based tax are worthy of consideration in Colombia. In particular, the Allowance for Corporate Equity (ACE) plan implemented from 1994-2001 in Croatia is an attractive option. This approach looks more like an income tax than most consumption tax plans in that it allows deductions for depreciation and for interest expense. It is thus less susceptible to abuse, involves fewer transition problems than alternative plans, and would be creditable in the US. The ACE is a consumption-based tax because it allows an additional deduction for the opportunity costs of equity, equal to the product of the book value of equity and the risk-free interest rate. The combination of this deduction and deductions for interest expense are economically equivalent to allowing expensing. In addition, offsetting effects between the equity deduction and deductions for interest expense and depreciation imply that the base of ACE tax is measured accurately even if its components are not. Although the ACE approach is not without its own problems, it is a promising way of obtaining the economic gains from consumption-based treatment of investment in Colombia without many of the problems that plague the Hall-Rabushka Flat Tax.

Finally, yet another alternative, recommended by both the President's tax reform panel in the US and a similar group is Switzerland, is to combine consumption-based tax treatment at the business level with a modest individual level tax on capital income. This approach helps to achieve equity goals and also avoids the perception problem associated with appearing to exempt capital income from tax entirely.

Finally, it should be noted that all the alternative forms of business taxation discussed above can co-exist with a traditional Value-Added Tax (VAT). We now turn to a discussion of how the VAT is implemented in Colombia.

VAT issues and options

Much of the gain in revenues over the 1990s can be largely attributed to increasing VAT rates (from 10 percent in 1990 to 16 percent today). As a result, the VAT's contribution to total national tax revenues grew by about 10 percentage points of GDP during the 1990s. However, the VAT in Colombia falls short of ideal consumption-based, destination-based value-added tax (VAT)[32]. It suffers from a complex design, with too many (10) rates and numerous exemptions that help explain its low yield by international standards (VAT collection as a ratio to GDP is below a third of the VAT rate). The low yield also reflects the tax's narrow base[33]; the high incidence of evasion, which Colombia's tax office (*Direccion de Impuestos Nacionales,* DIAN) estimates at 23 percent; and zero rates for a number of categories (other than exports). A special procedure for the VAT on capital goods adds complexity to tax administration. Estimates are that the cost of all exclusions and exemptions in the VAT amounted to about 4 percent of GDP in 2000[34].

A comparison with a number of Latin American countries characterized by similar tax rates illustrates the lower efficiency and productivity of the Colombian VAT. Bolivia, Costa Rica, and Mexico all possess tax rates on goods and services similar to Colombia's. All, however, collect significantly larger revenues, as a proportion of GDP. In 1999, while Colombia collected 4.9 percent of GDP from its VAT, Bolivia collected 7.1 percent, Costa Rica 7.6 percent, and Mexico 8 percent.

Colombia's main current VAT rate of 16 percent is at about the average for Latin America for 1999 (16.5 percent). The main goal in regards to the VAT should be to expand its base by reducing exemptions, and to help trim evasion and facilitate administration by eliminating a large number of intermediate rates. A first-best approach to reform the present system, aiming at increasing collections and reducing distortions, would eliminate all exemptions and establish a single rate of 16 percent (equal to the current rate), eliminating all preferential rates, as well as the differentially high tax rates.

[32] Under an ideal VAT, (a) all domestically consumed consumer goods and services (including imports) should be subject to a uniform tax rate; (b) VAT paid on all capital goods should be fully credited under the invoice-credit system; and (c) all exports should be zero-rated to ensure that the tax is assessed on a destination basis. A minimum income threshold for income tax purposes helps allow for the VAT that the poor inevitably pay.

[33] In 2003, sales benefited by exemptions and exclusions amounted to 48.7 percent of total domestic sales. See Ministry of Finance (2004a), Table 11 pp.27.

[34] World Bank (2005a).

Recent VAT reform efforts

Law 788 of 2002 moved in the direction of this type of consolidation[35], but it still left considerable tax rate differentials. Under the new structure, the general rate remained at 16 percent and differential rates of 0 percent, 5 percent, 7 percent (to be raised to 10 percent in 2005), 11 percent, 20 percent, and 38 percent remain in the system to this day. The Government's tax reform proposal submitted to Congress in September 2004 called for an increase in the maximum rate to 17 percent, of the 7 percent rate to 12 percent for a number of products; and to 3 percent for some of the currently zero-rated products. As a general rule, zero-rating should be eliminated for all goods other than exports. The only exceptions should be zero-rating for a very few basic foodstuffs on equity grounds (e.g., cereals, grains, vegetables and legumes, etc.)[36], prescription medicines and exemptions for health care and education (on the grounds that such goods are "merit goods" that should be untaxed), financial services (on administrative grounds and because many financial services should not in principle be subject to VAT), and public transportation (on the grounds that private transportation may generate negative congestion and pollution externalities). The Government's September 2004 proposal moved in this direction, but was withdrawn due to lack of political support. Exemptions should also be granted to small taxpayers, who should continue to be subject to an alternative simplified regime based on gross receipts[37].

The reason exemptions remain is the need to protect the poor from the VAT. Under the now withdrawn Government's September 2004 tax proposal, about 46 percent of the low-income consumption basket would be left exempt. The exemptions of course also protect the rich that consume the exempted goods (e.g., university tuition payments). A possible approach that can be explored to protect only the poor is to exempt only the poor through SISBEN, a fairly successful system of identifying the poor through targeted surveys. The poor would then receive "food stamps" to offset the impact of the VAT on goods formerly exempted. If adopted, application of this approach needs to wait until SISBEN covers all of the poor (it presently covers some 60 percent) and resolves some of the problems that SISBEN itself presently has (particularly its misuse by some local authorities). The Government is addressing these problems through a refurbished SISBEN that will rely more extensively on private surveys.

---

[35] Under Law 788, (a) a large number of previously exempted or excluded goods and services will be subject to the VAT at 7 percent from 2003, rising to 10 percent in 2005; (b) nearly all other exempted and excluded goods and services will be taxed at 2 percent from 2005 onwards (this provision was rejected by the Supreme Court); (c) mobile phone rate established at 20 percent; (d) rate on automobile sales will be unified at 25 percent from the current range of 20 percent to 35 percent; (e) during 2003-05, VAT paid on industrial machinery may be credited against the VAT on sales.

[36] Note that preferential rating of certain commodities under the VAT is not a good way of achieving equity goals, since the benefit of preferential rating also accrues to those in the higher income classes, and indeed increases with income, although less than proportionately if the preferentially-rates commodities are chosen appropriately. As a result, relatively small re-distributional gains are obtained at a high revenue cost, implying that rates under the VAT must be ideally uniform. Expenditure programs and a moderately progressive income tax are far better ways to achieve distributional goals. If additional relief is desired for the very poor to ensure that they pay little or no VAT, consideration could be given to a means-tested tax rebate program, although such an approach involves considerable administrative costs and may not be successful in reaching a significant portion of the population living in poverty.

[37] These exemptions should be optional, as some small firms may desire to register in the VAT system so that they will qualify for VAT credits for tax paid on their input purchases.

Financial transaction tax

The tax on financial transactions has yielded significant revenues in recent years. The tax was introduced in 1998 as a temporary measure, at a rate of 0.2 percent, was made permanent in the 2000 tax reform at a rate of 0.3 percent and raised to 0.4 percent beginning 2004. Revenues from the tax during 2004 amounted to an estimated 0.9 percent of GDP. The tax is highly controversial: it is defended by the Government for its wide base and its potential to bring in significant resources at low rates. Its detractors maintain that it is distortionary and that it negatively affects financial intermediation, that it encourages the use of cash and offshore financial transactions, and that it is easily evaded. There exists some international evidence that taxes on financial transactions can have substantial negative effects on the efficiency of the financial sector. While such a tax does have short-term benefits in terms of significant revenue mobilization, in the long run its costs may outweigh its advantages[38]. The gradual elimination of the financial transactions tax and its replacement by other revenue sources over time is thus recommended[39].

Sub-national government taxes

The two primary municipal taxes are the property tax (*impuesto predial unificado*) and a tax on gross business receipts known as the industry and commerce tax (*impuesto de industria y comercio*)[40]. The efficiency of the property tax and appropriateness of its assignment to municipalities is clear. They do need the political will and some technical assistance to make it more effective.

An industry and commerce tax on the gross receipts of local businesses is common in Latin America and elsewhere, because it is relatively easy to collect and administer. These taxes cause substantial economic distortions, however, because they fall mainly on a mobile factor, capital, and are not related to benefits. Because it is assessed on a gross basis with no deductions for costs, the effective tax rates vary considerably across business sectors, and thus distort resource allocation; in particular, gross receipts taxes impinge heavily on industries and products characterized by considerable turnover in the production and distribution process as the tax cascades at each stage of this process. Such tax cascading in turn creates inefficient incentives for vertical integration by firms in an attempt to reduce tax liability. Moreover, to the extent that gross receipts taxes are shifted to local consumers, they inefficiently distort consumption choices. Finally, the value added by the firm (which is likely to be correlated with local benefits received) varies widely as a proportion of the gross turnover being taxed, making tax burdens vary capriciously across firms, independently of the public service benefits they receive. In Colombia, when firms produce in one locality and sell through branches in another, there is uncertainty about which jurisdiction should

[38] Arbelaez, Burman, and Zuluaga (2002) persuasively argue against the use of this tax, citing its adverse impact on the financial intermediation process and its cascading effect on the cost of goods.

[39] The policy note on financial sector reforms provides evidence of the impact of financial transactions tax on increasing the extent of cash transactions in the economy. This has a secondary impact on tax administration, making enforcement of income and VAT on these cash transactions more difficult.

[40] World Bank (2005a).

collect the tax. Also, the tax is rife with exceptions, some of them mandated from the national level.

Departmental taxation chiefly includes excises on liquor, tobacco, beer, lotteries, and gasoline. Tax revenues declined from their peak of 1.4 percent of GDP in 1980 to 0.8 percent of GDP in 1993, and have since recovered to about 1.1 percent of GDP in 2003. The degree of variation in tax collection performance across regions is very large, ranging from 2.7 percent of total revenue (Casanare) to 44.8 percent of total revenue (Atlantico) in 2003, and reflect the very varied capacity to raise taxes. Taxes collected by every department are less than half of its total revenues[41]. Departmental tax bases are narrow, with the bulk or resources being raised by taxes on tobacco and alcohol, products that also suffer from a high incidence of smuggling.

Reform of departmental taxes should start from recognition of their main responsibilities. As some analysts have argued, "the main function of departments is to administer national programs, especially in education and health"[42], although the degree of autonomy varies greatly across departments and, of course, departmental governments are now elected, not appointed. This "tension" between the administrative role of departments and their now democratic basis is in fact resolved differentially depending largely on their capacity to raise taxes, with large autonomy in department such as Medellin (which follows Atlántico in revenue/expenditure performance) and limited autonomy in most of the others, where financing of expenditures is more dependent on transfers.

Be that as it may, the unavoidable conclusion is that departmental tax reform needs to improve the productivity of all departmental taxes. Problems that need to be addressed include smuggling, corruption, and counterfeiting in the liquor tax, smuggling in tobacco, and poor administration of the lotteries. Some of the reform options include the abolishment of departmental liquor monopolies, establishment of more uniform tax rates, and improved governance of the taxes on beer and tobacco (currently administered by DIAN, the National Tax Collection Office).

In general terms, a macro level reform that reduces transfer independence at the sub-national level can help services delivery in a variety of sectors discussed in these Policy Notes. Confronting the local taxpayer with the bill for services rendered is one way to enhance the accountability for improved sub-national government service delivery, since it provides information and the incentives for local citizens to monitor local government performance. This general advantage has to be weighed against the need for fiscal transfers to equalize the ability of governments in relatively poor (or low tax base) regions to provide services, as well as the efficiency that may arise from centralized collection of taxes.

[41] See DNP (circa 2004), p. 30.
[42] Acosta and Bird (2003).

Fiscal reform agenda

Maintaining the initial achievements in macroeconomic stability, while making fiscal policy compatible with sustained growth, is the challenge now for Colombia. The crisis of 2000–02 was overcome with various policy actions, including some emergency measures that the government should replace with more fundamental fiscal reforms. Colombia has little room for fiscal policy error, and important uncertainties remain on the horizon. Therefore, maintaining primary surpluses around 3 percent of GDP, Colombia will lower debt ratios to where it is much less vulnerable to shocks. The resulting lower interest bill, and lower interest rates in the economy from reduced country risk, both creates fiscal space for investment and social programs and enhances growth prospects.

Growth and continued progress with tax administration will be needed to keep up revenues, while the surcharges and special taxes on wealth and financial transactions should be phased out. Getting rid of the sectoral and regional exemptions in the income tax and VAT would also reduce distortions and increase revenues (See Table 4). Harmonizing the different VAT rates, which was agreed among all the other Andean countries, would improve efficiency in collection. In addition, the capital depreciation allowance should be amended so that the basis reflects any deduction already made for partial expensing of investment, and the depreciation rate takes account of the inflation indexation. For tax administration, the government should continue with the implementation of the MUISCA and simplify even further the tax return procedures.

Expenditure reform is the other half of the package. Public infrastructure investment, especially for transport (and telecommunications from the private sector), needs to rebound from the emergency cuts over the past decade. As indicated in the REDI report, and in other chapters of these Notes, transport and telecommunications are priority areas. The private sector should be able to handle telecommunications, with improved regulations, but transport investment will be especially important for a positive response to the free-trade agreement, and will require public sector spending. Budget flexibility should allow better options than cutting investment to achieve the needed primary surpluses. Making room for this public investment will require curtailing current outlays, especially transfers to pensions and sub-national governments. Transfers to territorial entities need to be reformed by 2009, otherwise they will create significant pressure on central government finances. Pensions still require active reform. Given that pension expenditures are regressive, they should be taxed as income (above the normal threshold). Additional revenues could be used to increase public investment.

To show one possible package of fiscal reforms with an overall neutral budget impact, Table 4 combines the fiscal impact estimates of these recommendations. These estimates are only for the initial first round impacts and do not include the positive dynamic fiscal effects that would occur as the reforms stimulate growth and a larger private sector tax base.

Table 4. Fiscal Reform Agenda: First Round Fiscal Impacts (annual, as a share of GDP)

	Short Run	Medium to Long Run
Increase in transfers to sub-national governments		1.9
Additional Infrastructure needs	0.3	0.5
Tariff Revenue Loss	0.3	0.3
Net Wealth Tax Loss	0.2	0.2
Eliminating the surcharge on CIT	0.4	0.4
Reduce the financial transactions tax rate to 0.2 percent	0.2	0.2
Additional Total Fiscal Costs	1.4	3.5
Fiscal Reform Agenda		
Savings due to Pension Reform	0.1	0.4
Eliminating inefficient legally-mandated entitlements and earmarked revenues	0.5	0.9
Reducing additional current expenditures	0.1	0.3
Taxing pensions	0.1	0.1
Elimination of Partial Expensing in the CIT		0.3
Fixing the depreciation of partial expensing	0.1	
Reduce assumed depreciation in the CIT	0.2	0.2
Increasing the VAT rate from 10 to 16 percent	0.1	0.1
Expanding the base of the VAT (3 percent rate all exempt and zero rates goods)*	0.2	0.2
Increasing the VAT rate from 3 to 16 percent*		
or Eliminating Exemptions		1.0
or broaden concept of taxable income		
or a combination of the three		
Savings and revenue gains from Fiscal Reform Agenda	1.4	3.5
* Maintaining basic food basket, and health and education services zero rated.		

Sources: *Ministry of Finance, Departamento Nacional de Planeación, and World Bank staff calculations.*

Delivering more and better social services should focus on using resources more effectively and raising more by the sub-national governments, which have the frontline responsibility for most education and health, and the most client contact. Sub-national tax reform is thus doubly important for rebalancing inter-governmental finances, reducing central outlays, and reducing tax distortions.

Summary of reform proposals

A variety of reforms are discussed above. Many of these are closely aligned to the policy recommendations for public expenditure and taxes put forward in Vision 2019.

The overarching theme is that reducing fiscal rigidities can enhance equitable growth. Reducing inequitable spending and increasing the efficiency of spending create the fiscal space for the types of spending that can enhance equitable growth. Reducing the rigidities in the current tax system can help unleash the entrepreneurial potential that enhances competitiveness and growth. A careful packaging of both the spending and taxing reforms can be fiscally neutral but have high social returns.

Short term

- Address the expiration of the transitory intergovernmental regime to avoid a sudden increase in these transfers.
- Take advantage of political capital of the new administration to advance on a comprehensive tax reform along the lines of the measures discussed above.
- Use monitoring and evaluation systems to guide choices on maintaining/reducing specific expenditure items.
- Implement Decree 4730 that provides some greater degree of flexibility to expenditures.
- Eliminate distortions in the tax code to improve the business environment.

Medium term

- Increase expenditure flexibility via reform of the Organic Budget Code, allowing for decreasing the consumption share of public spending.
- Improve the targeting of social spending in those subsectors/programs where the current structure is either regressive or not pro-poor.
- Consider additional public sector pension reform measures.
- Provide sub-national governments with stronger instruments for own revenue generation to reduce the dependence on intergovernmental transfers.
- Continue on the path on lowering government consumption as a share of GDP.

References

Acosta, Olga Lucia and Richard M. Bird, "The Dilemma of Decentralization in Colombia," unpublished report to the 2002 Public Revenues Commission (available in www.minhacienda.gov.co)

Arbelaez, Maria Angelica, Leonard Burman, and Sandra Zuluaga. 2002. "The Bank Debit Tax in Colombia." Fedesarollo, processed.

Bogota Chamber of Commerce. www.empresario.com.co.

Departamento Nacional de Planeación. 2005. *Visión Colombia II Centenario: 2019.*

Departamento Nacional de Planeación (undated, circa 2004), Informes del DNP sobre los resultados el desempeño fiscal de los departamentos y municipios año 2002 y Comparativo 2000 (Artículo 79 Ley 617 de 2000).

Loayza, Norman, Pablo Fajnzylber, and César Calderón. 2002. "Economic Growth in Latin America and the Caribbean: Stylized Facts, Explanations, and Forecasts." World Bank, Washington, D.C.

Ministry of Finance (2004c). "Marco Fiscal de Mediano Plazo." www.minhacienda.gov.co.

Organization of American States (OAS) and Inter-American Development Bank (IADB). 1965. *Fiscal Survey of Colombia*, The Johns Hopkins University Press.

Perry, Guillermo. 2005. "Finanzas Públicas: Evolución y Agenda Pendiente," *Coyuntura Económia,* Fedesarrollo.

Posada, Carlos Esteban and José Fernando Escobar. 2003. "Crecimiento Económico y Gasto Público: Una Interpretación de las Experiencias Internacionales y del Caso Colombiano (1982-1999), *Borradores de Economía*, Banco de la República, September.

United Nations. 2000. *Public Sector Indicators*, available at http://unpan1.un.org/intradoc/groups/public/documents/un/unpan000700.pdf

World Bank. 2005. Colombia Country Economic Memorandum: The Foundations for Competitiveness. World Bank Report No. 32035-CO.

World Bank. 2005a. *Colombia Public Expenditure Review*. World Bank Report No. 25163-CO.

World Bank. 2005b. Colombia Country Financial Accountability Assesment.

World Bank, 2004. Colombia Recent Economic Developments in Infrastructure. Report No. 30379-CO.

Zodrow, George R. 2003a. "Tax Expenditure Analysis in Colombia," May.

Zodrow, George R. 2002. "World Bank Tax Reform Proposals for Colombia," processed, December.

Toward the sustainability of Colombia's Primary Monitoring and Evaluation System[43]

Abstract: One of the main priorities of the Colombia Strategy Initiative Vision 2019 is to continue increasing the effectiveness of public policies aimed at achieving higher and more stable economic, social, and political development through the strengthening of monitoring and evaluation tools. Colombia's primary system for monitoring and evaluating key government programs and policies, SINERGIA- the national system for evaluation of management and results- has been greatly improved in the first half of this decade with the goal of an effective, comprehensive M&E system encompassed in Visión 2019. Despite the progress achieved, Colombian officials must continue working on improving and strengthening effective coordination of the primary system with other M&E systems (central, sectoral, and subnational systems) in order to make the system self-sustaining. First, the GOC needs to strengthen the supply side of M&E information, by improving the quality and credibility of monitoring information and expanding the types of evaluations which are conducted. Second, the GOC needs to strengthen the demand side for M&E information within government, Congress, and civil society –- specifically to support budget decision-making, management of government programs by ministries and entities, and social accountability

[43] This chapter was written by Gladys Lopez-Acevedo.

The vision

One of the main priorities of *Visión 2019* is to increase the effectiveness of public policies aimed at achieving higher and more stable economic, social, and political development, by strengthening monitoring and evaluation tools and continually improving the primary M&E systems including SIGOB[44]. *Visión 2019* proposes the consolidation of M&E as a fundamental tool to improve performance-based management and budgeting that can be actively used and shaped by civil society. The *Visión 2019* goal is consistent with previous initiatives: SINERGIA's Congressional act of 1991, the National Council of Economic and Social Policy (CONPES) 3294 (2004), the forthcoming SINERGIA Presidential Decree (2005), and the National Planning Department (DNP) Strategic Plan (2005). These measures seek to further strengthen M&E in Colombia to fully achieve their goals of: (i) increasing efficiency and transparency in the resource allocation process; (ii) improving the impact of policies, programs, and public institutions; and (iii) promoting accountability in public management by enhancing civil society's participation.

CONPES 3294 and the DNP Strategic Plan – Visión 2006-2010[45] – recognize that SINERGIA/SIGOB has to work as a system – a group of interacting, interrelated, and interdependent entities, each playing its specific role.

[44] SIGOB — Sistema de Programación y Gestión por Objetivos y Resultados (System of Programming and Management by Objectives and Results).

[45] DNP, with relevant actors, is in the process of completing its vision document, which will articulate the long-term vision for the Colombia M&E system and outline the steps necessary to achieve that vision.

Table 1. Primary M&E system – Vision 2006-2010

Entity	Role
Finance Ministry	Executes the Medium Term Expenditure Framework (MTEF) Allocates resources using M&E results Controls expenditure execution through M&E and results-based budgeting (RBB) Provides incentives for best practices in RBB through budget allocation Presents RBB to Congress
National Planning Department	Coordinates National Evaluation System Delivers capacity-building on M&E to other public administration agencies Coordinates timely and trustworthy data collection with the responsible agencies Provides technical support to the Inter-Institutional Evaluation Committee. Coordinates the use and disclosure of information policy with the relevant agencies Disseminates M&E and RBB results
Inter-Sectoral Evaluation and Results Management Committee	Strengthens coordination between budgeting and executing agencies while ensuring that evaluation effectively influences decision-making Defines the Strategic Evaluation Agenda and funding Is responsible for leading the evaluation agenda Sets M&E quality control mechanisms and data auditing
Executing agencies (ministries, program administrators)	Have adequate capacity to implement an M&E system and RBB. Have internal M&E system and RBB Generate quality data, used in measuring their performance and used in planning, budgeting, and policy-making Produce information to account for their actions Improve performance results
Subnational governments	Implement results-based management systems (RBM) and RBB Disseminate reports on their performance to facilitate accountability and social control Improve performance results
Congress	Is familiar with and applies RBM and RBB Demands evaluation reports to discuss and approve the budget and the National Development Plan Has adequate technical capacity to use this information in the specialized commissions Has reformed the budgeting institutions to have a RBB (investment and programmatic)
Audit organisms	Demand information from the primary system Demand data for fiscal and preventive control Have developed and implemented their own M&E systems Have improved their social control function
Citizens/Civil Society	Have real-time access to public information on expenditure results, allocation, and evaluation Have capacity to process the information through participatory and social control mechanisms Replicates regionally the best practices on M&E and RBB of the national level Have consolidated strategic alliances between civil society and the State

Source: DNP.

The role of each entity must be institutionalized and implemented for the overall system to work (Table 1 outlines the current thinking). Additionally, *all actors in the system must use the system* – that is, demand its information, supply information, and make policy decisions based on that information. In this way, the primary system and the M&E systems in the country will be capable of providing timely and quality information for program design and policymaking, which will increase the efficiency and effectiveness of government programs while giving the public access to all program data, allowing for greater transparency and efficiency in spending, and achieving the Government's goal of sustained poverty reduction.

Within this framework, DNP[46] will need to consolidate its role as coordinator of the National Evaluation System, foster monitoring and evaluation (M&E) at all levels, provide capacity-building to other actors, establish and implement quality controls, and ensure the dissemination of the evaluation results.

The Ministry of Finance will need to continue working to improve the ability of the government to undertake performance budgeting. A right step in this direction has been the recent publication of the MCHP's MTEF proposal to Congress[47]. This instrument will provide greater security in outyear funding for government ministries and activities. It can also provide an environment in which greater flexibility and responsibility is given to ministries and agencies, and these can be used to promote a greater performance orientation within government, as adopted by a number of OECD countries.

The main function of the Inter-Sectoral Evaluation and Results Management Committee would be to strengthen coordination between budgeting and executing agencies, while ensuring that evaluation effectively influences decision-making. The Committee also leads the evaluation agenda. The main role of the executing agencies (ministries and program administrators, at both the national and subnational levels) would be to produce quality information that feeds into the overall M&E system. Internally, they should also have their own M&E systems to inform decisions and improve their performance. The experiences acquired by DNP and MHCP can be used as guidance for accompanying the development of M&E systems at the subnational level.

The consumers of this system are Congress, the General Auditor's Office, the Finance Ministry, and civil society, which should demand and make use of the information produced by the system to influence policy. Use of the information is crucial to ensuring the sustainability of the system. If bottom-up appropriation (social participation) exists, it is more likely that the system will be required and thus consolidated.

[46] The Evaluation and Public Policy Direction (DEPP) of DNP is the technical secretariat of SINERGIA.
[47] MHCP (2006), Marco Fiscal de Mediano Plazo.

A mandate for evaluation

A detailed legal framework has been built to support the primary M&E system in the years since the creation of the Constitutional mandate in 1991. This stipulated the focus of the evaluation system as being "to assess the public sector's management and results".

Laws in 1993 regulated the fiscal control function (exercised by the Contraloria) to include "results control systems", and also regulated the internal control function within public sector agencies to include management evaluation and control systems. A law of 1994 gave DNP responsibility for creating SINERGIA and for reporting annually to the National Council for Economic and Social Policy (CONPES), the high-level policy committee which is headed by the President, on the results of the evaluation system.

SINERGIA itself was created through a DNP resolution in 1994, which operationalized the constitutional and legal mandate and also assigned responsibility for self-evaluation to all agencies in the executive branch of government. In addition, DNP assigned to itself the responsibility for developing methodologies to guide the system's evaluation activities. More recently, a 2003 law stipulated that the national budget include details on the objectives, intended results and management indicators for all government activities.

Other laws during this period have added to the complexity of the legal framework. That said, it is commonly accepted in Colombia that a detailed legal and regulatory basis is required to provide direction and legitimacy for any area of government reform, such as M&E. Of course, while such a framework is considered necessary, it is not sufficient to ensure that the function performs well. Other factors discussed in this note, such as the strength of leadership for the reform, the resources provided to support it, the establishment of routine rules and procedures, and incentives for the utilization of M&E information, are also key to a system's success.

The government itself has recognized that the multiplicity of laws and decrees has led to a profusion of M&E concepts, methodologies and instruments, and that greater clarity is needed. This led to the policy document issued by the CONPES (3294): *Renovation of Public Administration: Management by Results and the Reform of the National System of Evaluation*.

CONPES (3294) intended to strengthen the primary M&E system to serve its mandate. Results-based management became a priority for the new presidential administration[48]. President Uribe stated his strong desire for a new culture of public administration, based closely on social accountability "social control". Thus he introduced SIGOB. He merged SIGOB with SINERGIA and has re-energized SINERGIA.

[48] Presidential mandate No. 10 defines the guidelines for the reform of the State.

Progress toward the 2005-2010 vision for M&E

Colombian officials have accomplished some of the goals laid out in CONPES 3294 and in the M&E Vision 2005-2010. These include: (i) institutionalization of the systematic monitoring of the Presidential goals and results (SIGOB), in order to produce regular information about policies, programs, and agency performance; (ii) introduction of the medium term expenditure framework; (iii) the implementation of an ambitious impact evaluation agenda; (iv) further integration of SIGOB's monitoring component into the SINERGIA system, allowing the government to verify progress on the objectives stated in the NDP; (v) strong social accountability exemplified in the President's weekly townhall meetings in different municipalities around the country, and also in the annual television presentation to citizens, in which the president and his ministers discuss the government's performance and answer citizen questions on these issues.

DNP is leading efforts to introduce sound monitoring and evaluation practices and tools in strategic ministries, decentralized agencies, and at the subnational level. DNP and the Ministry of Social Protection are working together to develop an integrated M&E system that will provide timely and efficient information on the performance of social programs. The system is at an early stage, but will be completed within the next two years. M&E systems are also being developed in other ministries, including the Ministry of Education and the Ministry of Environment, Habitat and Territorial Development. In line with Law 819 and CONPES 3294, DNP has also been promoting M&E at the subnational level, with two ongoing pilots in the capital cities of Medellín and Pasto.

SINERGIA's three main components are SIGOB, its agenda of rigorous impact evaluations, and dissemination of M&E. SIGOB was developed in 2002 with UNDP support, and was initially located in the Presidencia. Responsibility was subsequently transferred to DNP in 2005, under the SINERGIA. DNP negotiates the annual targets with each ministry and agency. DNP is also supporting pilot work to replicate SIGOB in two municipalities.

The data which comprise SIGOB are supplied by ministries and agencies. In addition to whatever data controls are applied by the entities which supply these SIGOB data, DEPP in DNP itself endeavors to identify any data problems or inconsistencies, and has a team responsible for monitoring the quality of the SIGOB data and for following up on suspected data problems with the entities which supplied them. However, in the absence of a system of regular, detailed data audits, the reliability of the data is unknown and has certainly not been demonstrated. One partial exception is the Ministry of Education (MEN) which, with Bank support, undertakes audits of some of the data provided by departments and municipalities; as funding allocations to the states are based on school enrollment data, there exist incentives for states to over-estimate enrollments.

SINERGIA's evaluation component also has achieved significant results, including a budget increase, from 4.1 percent of programmable expenditures to 13.4 percent, allowing further expansion of operational and impact evaluations. Uribe's Administration has enlarged its impact evaluation agenda to include programs outside the *Red de Apoyo Social*, (Social Support Network, which is based on three programs: workfare, conditional cash transfer and youth training) which has entailed a technical strengthening of the SINERGIA system to ensure strong supervision. The establishment in 2004 of the Intersectoral Evaluation and Results Management Committee, discussed above, seeks to foster the discussion of

evaluation methodologies, types of evaluations, and the costs and consequences of their results for policymaking.

SINERGIA's transparency component has also progressed during the present Administration**.** This component has been oriented toward strengthening the analysis and dissemination of evaluation work, through the creation of strategic alliances with civil society organizations, utilizing community radio stations, citizens' opinion surveys, newspapers, and expert analysis to generate debate on the Government's results and reports. SINERGIA has been active in the dissemination of these results through mass media and the distribution of periodic bulletins called *Reportes de Evaluación* to civil society in order to foster debate. SINERGIA has learned from the experience of the *Bogotá Como Vamos* model (2005)[49], which now operates in four major cities – Bogotá, Cartagena, Medellín, and Cali. DNP is also strengthening its relationship with a number of business foundations, universities, and specialized NGOs, including *Colombia Líder* (a civil society organization that tracks the country's performance on poverty and governance issues) and two major accountability entities, the National Planning Council[50] and the National Audit Office (which provides an independent evaluation of ministries and the NDP).

International perspective on M&E systems

In developed countries, M&E systems have been applied to service delivery agencies such as health and education, to public services, and to financial agencies such as treasuries and central banks. M&E systems were adopted by the UK and New Zealand in the 1980s, by Canada in the early 1990s, and by the USA and many OECD countries in the late 1990s. A number of donor agencies, at both the multilateral and bilateral levels, are also making use of M&E approaches in managing their own programs. Similarly, there have been efforts throughout Latin American countries since the late 1980s to implement results-based management, notably in Costa Rica, Uruguay, Honduras, Chile, Colombia, and Bolivia[51]. Some of these international experiences are summarized below (Box 1).

[49] Bogotá: ¿Cómo Vamos?, 2005.
[50] A representative group of civil society interest groups created by the Constitution to oversee the NDP.
[51] Matsuda (2003).

Box 1. Latin American Experiences with Results-based Management

Chile. The Government of Chile initiated the design and implementation of a results-based management system in 1994 *(Sistema de Control de Gestión y Presupuestos por Resultados)* in order to improve public management. The Ministry of Finance launched the initiative, developing a number of instruments to foster a more transparent budgeting process, strengthen its analytical capacity, and improve program management. Although the Chilean approach is decentralized (i.e., no single entity is responsible for developing and maintaining a national system as in Colombia), the processes are relatively well-coordinated by a cabinet level inter-ministerial committee. The budget office in the Ministry of Finance plays a key role in coordinating the various decentralized initiatives and uses performance data in formulating its budget on an annual basis. Performance is evaluated at the level of policies, expenditures, organizations, programs and individual public servants. The government has begun to link performance evaluations to organizational incentives.

Bolivia. The 1990 SAFCO *(Sistema Integrado de Administración Financiera y Control Gubernamentales)* Law required government entities to prepare annual operational plans with performance indicators. Most recently, the government attempted to develop a new performance evaluation system (SISER) located in the Ministry of the Presidency and supported by the multi-donor Institutional Reform Project. In specific sectors, especially education and health, donor support for sectoral reforms has also resulted in better specification of sectoral goals and performance indicators. Overall, however, the system is far from fully operational. The Annual Operation Plans have always been treated in a perfunctory fashion by both sectoral ministries and the Ministry of Finance, and the SISER project has been discontinued. A reform of the budget system that was supposed to accompany the development of the SISER never took off, in spite of the notable recent progress with a new financial management information system.

Brazil. Since the mid-1990s, the Ministry of Planning, Budget, and Management has led an ambitious effort to turn the Central government's multi-year plan (PPA) into a strategic instrument for results-oriented resource allocations and program management. Most of the PPA programs are assessed each year, and the report is submitted to Congress prior to the beginning of the annual budget cycle. Although the new PPA framework has enhanced government transparency and contributed to better strategic discussions about program goals and designs within the bureaucracy, there is little evidence that the annual assessment reports are seriously reviewed, let alone debated, by the Congress, and that evaluation results are systematically influencing resource allocations decisions. High degrees of rigidities in the budget structure and public management regulations limit the government's ability to manage for results. In spite of the multi-year character of these plans, they are still steps away from a robust medium-term expenditure framework as found in advanced OECD countries.

Source: *IDEA (2003).*

Intra-regional comparative analysis of M&E systems

Within Latin America, Chile is the only country that has successfully implemented an M&E system (measured in terms of the use of the information). A comparison between Chile's M&E system, run through the Ministry of Finance and Colombia's SINERGIA/SIGOB program, yields compelling results. First, the countries created their respective M&E systems with different operational objectives in mind. While Colombia's M&E system is used primarily for accountability purposes (mainly on the monitoring side, with some notable exceptions on the evaluation front), Chile's M&E system is largely focused on producing information for use in the budgetary decision-making process, and to impose program and management changes on ministries. Chile's budget focus has allowed the Ministry of Finance to utilize the M&E system and make it an important driver of success and sustainability by tightening its already strong grip on the budget process. Chile's umbrella program for public sector reform, the *Programa de Mejoramiento de la Gestion* (PMG), benefited from a high degree of institutional support during its various extensions. Moreover, this support gave PMG administrators the opportunity to create distinct phases of system analysis and recommendations for the administrative bodies they advised. Multiple streams of work could be launched per area of M&E evaluation, such that public bodies could make advances in multiple streams of work at once, making the reorganization process much easier (see Table 2).

On the other hand, Colombia's focus on accountability and results has not yet resulted in the widespread adoption of evaluation and M&E practices by all ministries and subnational governments. Progress has been achieved compared to four years ago, but much remains to be done in use and supply of M&E information.

Table 2. Programa de Mejoramiento de la Gestión, 2005

Areas	Methodologies
Human Resources	Capacity-building
	Security and improvement of the Workplace
	Program evaluation
Quality Control Focus on Users	Office of Information, claims and suggestions
	eGovernment
Planning, Control Management, Territorially Integrated Management	Planning and control management
	Internal Auditing
	Territorially integrated management
Financial Administration	Procurement system control
	Financial administration; accounting

Secondly, the countries have structured their M&E systems differently, with varying degrees of institutionalization. Although Colombia's system has existed for more than a decade, its level of multi-sector implementation has been limited in comparison to Chile. Chile's system has been firmly institutionalized within the Ministry of Finance, which has resulted in less resistance to the implementation of the M&E system throughout other ministries and entities, making multi-sector implementation possible. On the other hand, Colombia's system has been dependent on convincing entities about the usefulness of M&E tools, fostering the adoption of M&E by ministries and subnational entities, and on the

strong political support provided by the current Administration. However, this is gradually changing, since subnational governments and ministries are engaging more actively in the M&E dialogue. Examples include the municipalities of Pasto and Medellín, and entities such as the Ministry of Social Protection, the Ministry of Education, and the Colombian Institute of Family Welfare (*Instituto Colombiano del Bienestar Familiar*, ICBF).

Thirdly, the systems differ in their operational use of the information produced. The Ministry of Finance in Chile employs the M&E system extensively in its budget decision-making and in imposing program and management changes on all Ministries. However, the information produced by the various ministries includes a degree of repetitiveness, as some choose to rely on other evaluation systems, and not on the Ministry of Finance's M&E system. Similarly, the Ministry of Finance does not make much use of the information produced by the Solidarity and Social Investment Fund (*Fondo de Solidaridad e Inversión Social*, FOSIS) or other systems. On the other hand, Colombia's M&E system uses information primarily for its evaluation component, demonstrating the need for changes in accountability structures throughout political bodies. Information, however, is used less extensively to make policy and budget decisions than in Chile's system. Yet unlike Chile, the Ministries do not produce the same evaluation information as SINERGIA.

Finally, the systems also differ in their emphasis on integrating civil society participation in the M&E process. In the SINERGIA system, dissemination and social participation is an important component in the sustainability of the system, trying to generate the incentives for civil society to analyze and use information. This emphasis has been strongly endorsed by the present Administration. On the other hand, civil society participation and oversight is absent in the Chilean system, since the system is top-down driven.

Challenges for 2006-2010

SINERGIA/SIGOB is a well-performing government M&E system. The main challenge now facing it is its full institutionalization, so that it will continue to thrive and to support good governance after a change in administration. For SINERGIA to be fully sustainable in this sense will require the strengthening of both the demand and supply sides of M&E; these are closely related. The supply side can be strengthened by improving the quality and credibility of monitoring information, reducing the costs of data supply, and increasing the volume and breadth of types of evaluations which are conducted. The demand side can be strengthened by promoting greater awareness of, and confidence in, the monitoring information and evaluation findings which the system produces awareness among ministers, civil servants, and in civil society. Greater utilization of M&E information will require that key ministers and their ministries especially the Presidencia, DNP and MHCP play a leading and even forceful role in championing the usefulness of the M&E information produced by SINERGIA. This support will need to go well beyond simple advocacy, and will need to include steps to ensure the utilization of the M&E information to support budget and national planning decision-making and social accountability.

Sector ministers and their ministries also have a role to play in ensuring utilization of M&E information, in sector ministry policy development and planning, and in the ongoing management of government activities by ministries and entities. Their use of M&E information would be expected to encompass both the information produced by SINERGIA, and M&E information which their own ministries are meant to collect.

Thus on both the demand and supply sides, there is a need for greater clarity and focus of roles, responsibilities and accountabilities. The CONPES and the Intersectoral Committee for Evaluation and Management for Results could play a leading role here.

Institutionalization of M&E. This would require finalization of the legal and regulatory agreements for the full implementation of CONPES 3294. It also requires consolidating SINERGIA/SIGOB's technical and institutional capabilities in order to create a coalition of M&E champions – civil society, ministries, and other actors who hold a stake in the system and are working to further its institutionalization. SINERGIA/SIGOB is trying to increase its political support and strengthen the technical capabilities of the Comptroller's Office and other key actors in the system to better monitor results. DNP is working with individual ministries and subnational governments to help them further develop their own M&E systems and ensure consistency with the SINERGIA/SIGOB system as a whole; but the leadership of the Inter-sectoral Committee will need to create the political will necessary to strengthen the system beyond what is required by law and the CONPES. Sustainability also requires less dependency on donor support and external resources to finance the M&E system. The Government should invest more in SINERGIA/SIGOB to ensure its sustainability.

Improving M&E information. This will require improving information standards, better coordination of information policies, clear information guidelines, and quality controls such as performing random data audits in key ministries and agencies. Improving household surveys to reduce the high cost of impact evaluations is another goal. The strengthening of COINFO (Information Committee) and of DANE (Statistics Office) should include more coordinated data collection efforts.

Expanding and deepening M&E. SINERGIA/SIGOB must continue working with ministries to deepen M&E and link it to the SIGOB system. SINERGIA/SIGOB also needs to encourage the expansion of M&E into subnational governments. The Government's experience in developing and implementing SIGOB can be a useful reference for the development of M&E systems at the subnational level and within individual ministries, such as the Ministry of Social Protection. There are already two subnational systems progressing in the implementation of their results-based management systems, one in Pasto and the other in Medellín, and 20 other municipalities have expressed interest in getting technical assistance from DNP to support their work.

Developing results-based budgeting methodologies. There are several issues that will influence the ability of the government to undertake performance budgeting. Only three are discussed here. The first is the December 2005 decision to implement a medium-term expenditure framework (MTEF) discussed above. A second issue is the lack of a programmatic structure to the budget. DEPP's "performance budgets" for the past two years have reported planned budget spending on a program basis, and it constructed this programmatic classification of activities on an ad hoc basis. The investment and recurrent budgets continue to rely on conventional line-item budgeting, however; DEPP's performance budget reports are attached as an annex to the conventional budget reports. While a program budgeting approach facilitates the use of M&E information during the budget process, it is not a prerequisite to a well-functioning M&E system which is intensively utilized by government, as the case of Chile amply demonstrates. A third, related issue for Colombia is the apparently poor links between the financial management

system (SIIF) on which the budget is based and SIGOB. This makes it harder to link government spending on particular activities to the outputs, outcomes and impacts produced by those activities. Thus DEPP's performance budget reports have involved the manual matching of SIGOB performance information with the cost data produced by SIIF. Chile has to conduct similar manual matching —which is time-consuming— when it estimates the budget spending on the programs which it evaluates.

Continuous feedback. Lastly, widespread social participation in M&E programs is an essential factor in ensuring SINERGIA/SIGOB's institutionalization. By establishing strategic alliances with civil society organizations and disseminating evaluation work, non-governmental actors in business, academia, and NGOs will develop a stake in SINERGIA/SIGOB and work to preserve its M&E functions. SINERGIA/SIGOB's dissemination component has already utilized community radio stations, citizens' opinion surveys, newspapers, and expert analysis to generate debate on the Government's results and reports, and it is important to continue these efforts and create M&E champions in civil society.

References

Bogotá: ¿Cómo Vamos? 2005. Balance del Comité Directivo ppt.

Colombia Líder. 2006. Propuesta de integración

Congreso (Senador Carlos Ferro). 2005. Proyecto de Ley por el cual se reglamenta la Rendición de Cuentas en Colombia.

Consejo Nacional de Política Económica y Social. 2004. 'Renovación de la Administración Pública: Gestión por Resultados y Reforma del Sistema Nacional de Evaluación'. Documento CONPES 3294. Presidencia de la República: Alta Consejería Presidencial; Ministerio de Hacienda: DGPN; DNP: DEPP - DIFP - PRAP. Versión aprobada. Bogotá.

Dirección Nacional de Planeación y Presidencia, 2005, Visión Colombia II CENTENARIO 2019.

Dirección Nacional de Planeación y Presidencia. 2005. Proyecto de Decreto por el cual se organiza el Sistema Nacional de Evaluación de Gestión y Resultados y sus instrumentos, se crea el Comité Intersectorial de Evaluación de Gestión y Resultados, y se establecen algunos procedimientos.

Fonseca Sibaja, Asdrúbal. 2001. "El sistema nacional de evaluación: un instrumento para la toma de decisiones del gobierno de Costa Rica. Caracas: CLAD.

Institute for Democracy and Electoral Assistance (IDEA) International. 2003. "Results-Based Management System (RBM) for Social Programs: A Review of International Experiences." Washington, DC: The World Bank.

Matsuda, Yasuhiko. 2003. "Public Sector Reforms in Latin America and the Caribbean and their Impacts on Service Delivery." Washington, DC: The World Bank. Mimeo.

Montes, Carlos. 2003. "Results-based Public Management in Bolivia," Overseas Development Institute Working Paper 202.

MHCP, 2006. Medium Term Expenditure Framework.

Ospina Bozzi, S. and Ochoa, D. 2003. "El Sistema Nacional de Evaluación de Resultados de la Gestión Pública (SINERGIA/SIGOB) de Colombia". In Cunill Grau, N. and Ospina Bozzi, S. (eds.): Evaluación de Resultados para una Gestión Pública Moderna y Democrática: Experiencias Latinoamericanas. CLAD, AECI/MAP/FIIAPP, Caracas.

May et al. 2006. Conference Proceedings, Towards the Institutionalization of Monitoring and Evaluation Systems in Latin America and the Caribbean.

Rawlings, Laura, and Gloria Martha Rubio. 2003. "Evaluation the Impact of Conditional Cash Transfer Programs: Lessons from Latin America." Policy Research Working Paper, 3119. Washington, D.C.: The World Bank.

SINERGIA. 2004a. Programa Familias en Acción: Condiciones Iniciales de los Beneficiarios e Impactos Preliminares. Evaluación de Políticas Públicas No.1, Departamento Nacional de Evaluación, Colombia.

SINERGIA. 2004b. Programa Empleo en Acción: Condiciones Iniciales de los Beneficiarios e Impactos de Corto Plazo. Evaluación de Políticas Públicas No.2, Departamento Nacional de Evaluación, Colombia.

SINERGIA. 2004c. Red de Apoyo Social: Conceptualización y Evaluación de Impacto. Evaluación de Políticas Públicas No.3, Departamento Nacional de Evaluación, Colombia.

SINERGIA. 2005. Plan Estratégico para el Fortalecimiento y Consolidación de la Información Pública, la Gestión Basada en Resultados y la Evaluación en Colombia: 2006-2010.

World Bank. 1997. "Colombia: Paving the Way for a Results-Oriented Public Sector", Report No. 15300-CO.

----. 2002. "Brazil Planning for Performance in the Central Government: Review of Pluriannual Planning." Report No. 22870-BR.

Zaltsman Ariel. 2006. Experience with Institutionalizing Monitoring and Evaluation Systems In Five Latin American Countries: Argentina, Chile, Colombia, Costa Rica and Uruguay, Evaluation Capacity Department Working Paper # 16.

Preparing Colombian Youth for a Competitive World[52]

Abstract: A key question for the next Administration is how to build the human capital needed to improve the country's level of competitiveness and thereby reduce poverty. Education spending is high by international standards, but has yet to translate to better outcomes. Improvement has been slow over the past decade, undermined by the recent economic downturn, but should accelerate based on recent reforms. The impact of these measures needs to be evaluated, in particular with regard to equity and quality, and other necessary interventions identified. With expanded use of demand-side measures, improvements in both equity and quality of education can be accelerated, enabling greater numbers of the poor to get out of the intergenerational poverty/low education trap. Quality should be at the top of the sector agenda. Finally, Vision 2019 goals should be expanded to include initiatives for lifelong learning.

[52] This chapter was written by Mark Hagerstrom with the collaboration of Martha Laverde.

Introduction

This Note looks at recent progress in the education sector[53]; reviews the current vision and goals (Vision 2019); and offers recommendations for the new Administration. Improvements in the coverage and quality are fundamental for enhancing the competitiveness of the economy and alleviating poverty. International experience shows that a one standard deviation improvement in education performance can allow a country to leap-frog over 15 others in competitiveness ranking[54]. For the individual in Colombia, investment in a secondary education yields a 14 percent return. Thus to improving educational outcomes should not be underestimated. Neither should the challenges. A look at schooling attained by age groups in urban areas demonstrates that while there have been some improvements, about half of the adult population under age 40 still does not have a secondary education (Figure 1).

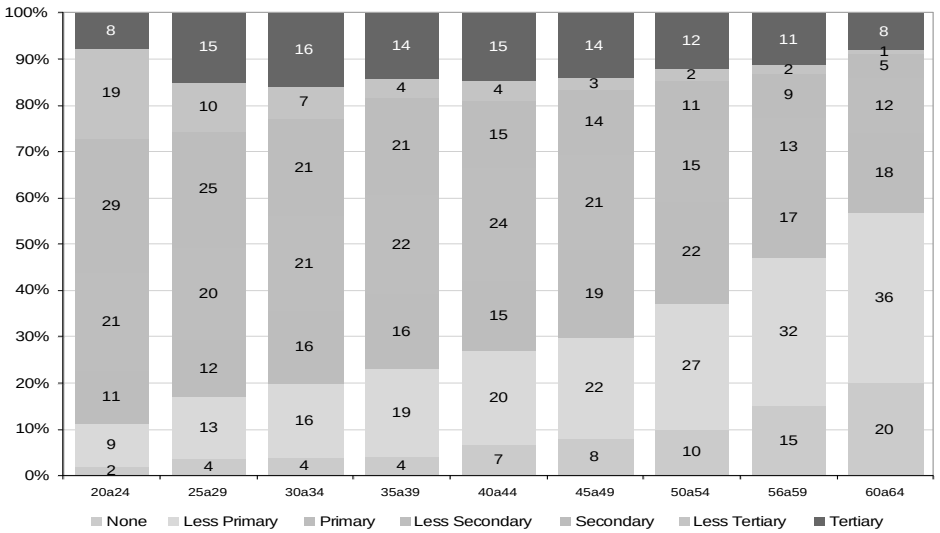
Moreover, the share of those having a tertiary education has been stuck at around 15 percent for almost an entire generation, reflecting, in part, the brain drain caused by years of violence. These numbers are only now starting to expand. At the same time, however, almost one quarter of 20 to 24 year-olds have a primary education or less, and education attainment in rural areas paints an even bleaker picture of this gap.

Earnings in the Colombian labor market are, not surprisingly, closely related to a worker's level of education. The average monthly earnings across age cohorts by level of education reveals large disparities in earnings among workers with different levels of education (Figure 2). In particular, there is a noticeable wage gap between workers with tertiary education and other workers, and this gap increases over time. The overall rate of return for

[53] Progress is measured by structural changes in the sectors, as outlined in the Bank's 2002 policy note.
[54] WEF index.

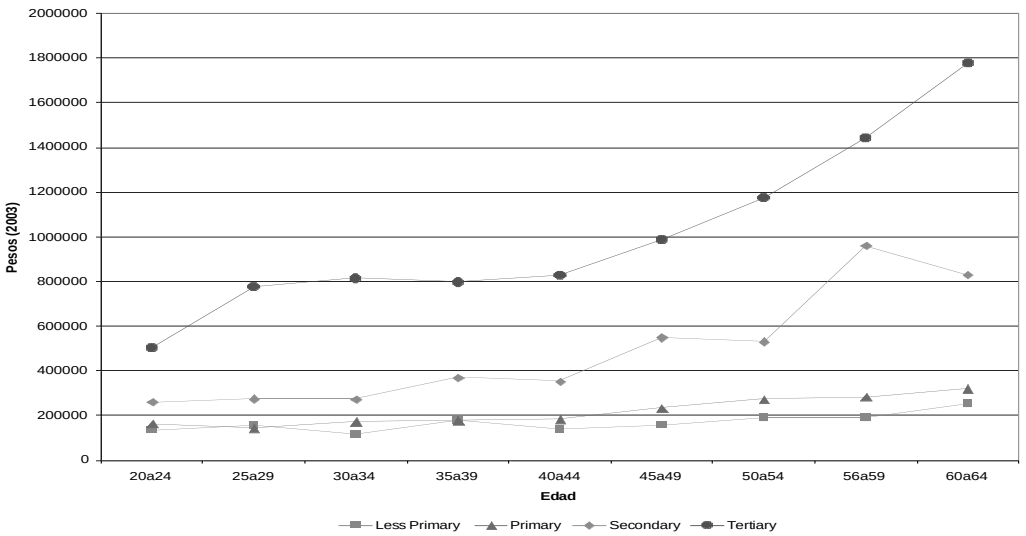
an additional year of education in Colombia has declined from about 16.7 percent in 1971 to a still relatively good 11 percent in the 2000s. Recent estimates show that for a 20 year-old, the returns to primary, secondary and tertiary education are 8 percent, 14 percent, and 17 percent respectively.

Figure 1. Attained Schooling by Age Group (Urban)



Source: Quality of Life Survey, 2003.

Figure 2. Average Monthly Wage by Age and Education



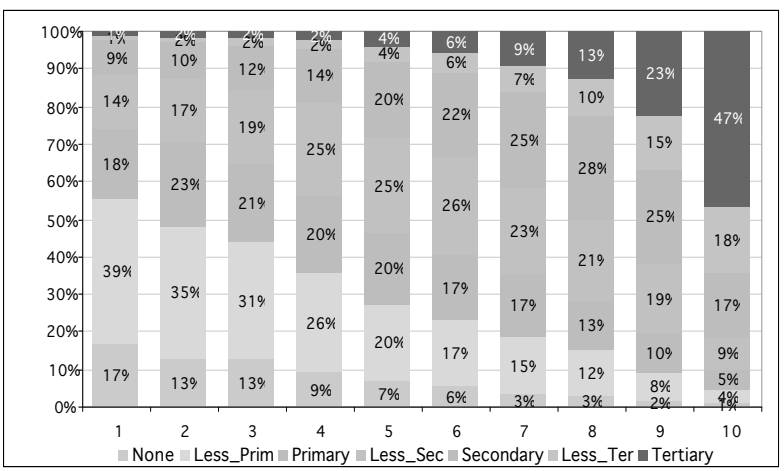
Source: Quality of Life Survey, 2003.

Recent Progress

The Policy Option Notes prepared by the Bank for the previous Administration highlighted a series of structural challenges facing the education sector, including inequality, low quality and efficiency, poor allocation of public expenditures, and lack of decentralization. A review of performance in these areas since that time points to some advances, based on important reforms that have laid the foundation for future initiatives. Each of these challenges is described below.

Access to schooling. High inequality in access to schooling was an important theme of the previous policy note. In recent years, overall increases in coverage, demand-side programs, and specific interventions in rural areas have improved the situation, but urban/rural and rich/poor inequalities remain strong. Over the last decade, the average educational level of Colombians 15 years and older increased by 1.2 years, from 6.4 in 1992 to 7.6 in 2003. This breaks down, however, into an average level of schooling of 8.4 years in regional capitals, but only 4.6 years in the rest of the country. Access to education by the poor, especially rural children, remains a major challenge. Not only are school enrollment rates (other than for basic education) lagging with respect to comparator countries, but there are also important inequities in coverage and average schooling by income decile (Figure 3).

Figure 3. Distribution of Schooling by Income Decile



Source: Encuesta de Calidad de Vida, 2003; Quality of Life Survey, 2003.

School quality. The previous policy note indicated that school quality was low and may be deteriorating. National testing suggests that quality began to improve between 2001 and 2005. Such improvements, however, have been slow and may mask socioeconomic differences that require targeted interventions to avoid exacerbating inequalities. Moreover, international testing indicates that quality still lags behind comparator countries.

Sector efficiency. The previous policy note also pointed out that efficiency was low**.** The capacity of an education system to retain and promote its students through the grades is another indication of quality and the effective use of fiscal resources. The data show some improvement in internal efficiency rates between 2001 and 2003, especially in secondary education (Table 1).

Table 1. Internal Efficiency Rates, Public Sector (percent)

	Promotion		Failure		Dropout		Repetition	
	2001	2003	2001	2003	2001	2003	2001	2003
Primary	81.8	87.8	9.5	5.3	8.7	6.9	7.7	5.5
Secondary	79.2	89.2	13.2	4.6	7.6	6.2	5.9	2.9
Middle	87.0	92.8	8.6	3.4	4.4	3.8	3.1	1.5
Total	82.0	88.7	9.9	4.7	8.0	6.5	6.8	4.4

Source: DANE, C-600.

Yet differences between urban and rural areas continue to be significant, with the urban dropout rate at around 5.2 percent in 2003, compared to 7.1 percent in rural areas. Moreover, in 2003, for example, 580,000 children and youths dropped out of school before the end of the year. About 70,000 of them had been studying in private schools and 510,000 in public schools. In fiscal terms, based on an average cost per student of US$385, this would mean losing about $200 million per year. In terms of completion rate, 2004 data indicate that out of every 100 children starting primary school, only 61 finished the fifth grade, and out of every 100 starting secondary school, only 57 finished ninth grade and 35 finished eleventh grade.

Public expenditure. An increase in education spending was was noted in the previous document, which also concluded that allocation efficiency was poor**.** Expenditure in education between 1990 and 2004 increased from 2.4 to 5.2 percent of GDP (Table 2). It now compares well with other LAC countries and is higher than the average for OECD countries, with a greater proportion of private expenditures in education than in most countries. The reforms under Law 715 guarantee a continuation of this upward trend; spending is targeted to increase by 2.5 percent more than GDP growth between 2006 and 2008. Public expenditure has also moved in the right direction from the tertiary level to the secondary and primary education levels, with tertiary spending, as measured as percent of per capita GDP, dropping from 49.4 in 1985 to 30.4 percent in 2003.

Table 2. Public Education Expenditures as a Share of GDP, Colombia and Comparator Countries

Country	Total Education Expenditure (percent of GDP)*	Per Student Expenditure (percent of GDP per capita)**		
		Primary	Secondary	Tertiary
Argentina[1]	4.0	12.4	15.8	17.8
Brazil	4.2	10.7	10.0	48.5
Chile[1]	4.2	14.3	14.7	19.2
Costa Rica	5.1	14.6	20.2	45.8
Paraguay	4.4	12.9	15.4	47.1
Colombia	5.2	**15.0**	**16.3**	**37.5**
Latin America & Caribbean	4.5	13.1	n.a.	44.9
Upper Middle Income	4.4	12.1	n.a.	30.6

Source: (*) Unesco Institute for Statistics, data from 2002/3.
(**) The World Bank: SIMA, and EdStats databases, data from 2000.

Decentralization of education. The decentralization of service delivery was viewed as a positive development, but the previous policy note suggested that its implementation had been inefficient and inequitable**.** Subsequently, however, the enactment of Law 715 has improved progress in decentralizing education, with important positive impacts on

coverage already seen in the 2001-2003 period. Under the Law, transfers to territorial entities began in 2004, based on actual enrollment and per-student allocations. Territorial entities that improve efficiency in personnel administration, via higher student/teacher ratios or less expensive teachers, can plow savings back into quality enhancement (retraining, pedagogical materials, education technology). To aid local governments in improving efficiency and quality, Law 715 gives them the option to contract educational services with the private sector, based on successful experiences such as PACES and other demand-driven subsidy programs. The new Law also limits teachers' salaries and promotion scales. Under the previous system, teachers would move rapidly up the salary scale, creating growing pressure on the budget. With the reform, 50,000 new teachers, representing 20 percent of the total number of teachers currently employed in the public system, are being employed under new conditions.

Violence and social displacement. The negative impact of violence and social displacement on schooling was noted in the previous policy note. The conflict situation contributes to education inequality for children and adolescents under 18 years of age, whether they are actively engaged with illegal armed groups or experience the negative impacts of violence. More than half of the displaced population is under 17 years of age. In order to give priority attention to the internally displaced population, the Administration has defined three lines of action aimed at implementing flexible, relevant education models such as *Escuela Nueva*, *SAT,* and *Aceleración del Aprendizaje*. The results, however, are still far below expectations, due in part to targeting difficulties because of limited information and population mobility. To augment its efforts, the Government has recently extended the *Familias* program to the dislocated population. Both displaced and demobilized populations require specific targeted educational programs articulated with labor, cultural and civic interventions to enhance their integration.

Vision for the Future

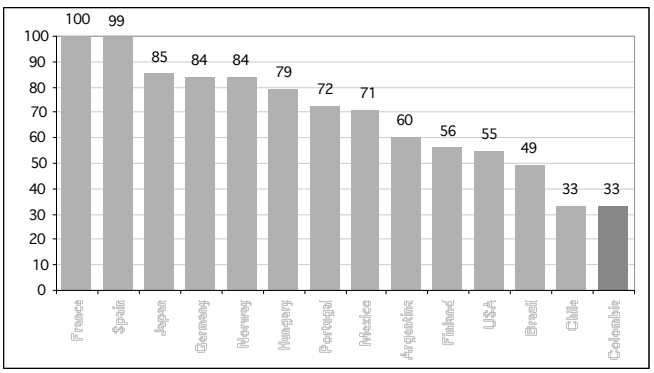
The recently published *Vision Colombia II Centenario: 2019* (Vision 2019) provides a basis for discussing education sector objectives. Vision 2019 sets four basic targets: (i) promoting education in childcare programs; (ii) achieving universal coverage in primary and secondary education; (iii) improving the quality of primary and secondary education; and (iv) increasing the coverage, relevance, and quality of tertiary education. This section reviews these targets in light of their feasibility and expected impact; and discusses how future initiatives might build on recent progress.

Objective 1. Promoting education in childcare programs for those under five years of age. Early childhood development (ECD) has a positive impact in school performance and future labor performance, particularly among children from poor families. Preschool education improves cognitive, social and emotional development to enhance a child's entering, remaining and performing successfully in primary education. This, is turn, increases the probability of employment and higher earnings. Thus, increasing enrollment rates for children under five years of age, especially for poor children, would contribute to improved educational and labor market outcomes in Colombia, and will likely help decrease income inequality in the medium term.

Overall preschool enrollment rates are still low compared with international standards. According to the World Development Indicators, Colombian preschool gross enrollment

grew from 11 percent in 1985 to 33 percent in 2003. However, Figure 4 indicates that enrollment rates for 3-6 year olds in Colombia are much lower than in OECD and many Latin American countries (Figure 4).

Figure 4. Preschool Enrollment Rates, 3 to 6 year-olds, 2003 (percent)



Source: UNICEF, 2004.

Since 2003, efforts have focused on increasing coverage in grade 0 (transition grade), which is now at 83 percent. However, some of this effort has been at the expense of the first two years of non-obligatory pre-school (pre-kindergarten and kindergarten), which has declined to 12.5 percent and has virtually disappeared in parts of the country. Overall, therefore, preschool has increased to only 36 percent.

Shifting the focus to ECD at this time is appropriate and a joint project is already being undertaken by the Ministry of Education and the Colombian Family Welfare Institute (ICBF) to design and implement a national early childhood development strategy that defines and enforces quality standards, and increases collaboration with sub-national governments. The Government is in the process of establishing an explicit targeting policy to ensure that more low-income children benefit from ICBF Assistance and Prevention programs carried out in coordination with the Ministry of Education. In addition, an expansion of *Familias* demand-side support for poorer families would help to increase attendance where it can have the greatest impact, but coordination with ICFB can help ensure sufficient supply.

Objective 2. Achieve universal coverage in primary and secondary school. Primary coverage is far behind the average for the region (88 percent for Colombia and 96 percent for the region in 2003). Colombia's secondary school net enrollment rate of 55 percent in 2003 was below that of Venezuela (59 percent), Peru (69 percent), Bolivia (71 percent), Brazil (75 percent), Chile (79 percent), and Argentina (81 percent)[55]. However, under Law 715, coverage has been improving, and 1,085,000 new enrollments in basic and secondary schools have been achieved over the past three years. Nonetheless, regional, urban/rural, and rich/poor inequities persist, and local authorities will need support in reaching the

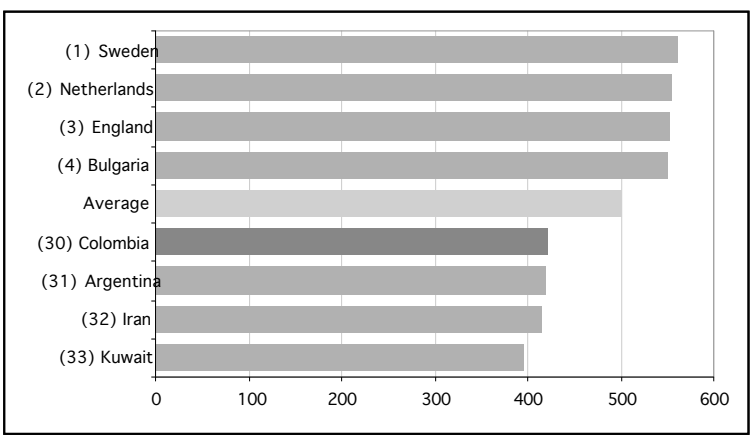
[55] It should be noted that there are concerns about the reference population used to calculate enrollment rates. After a 12-year gap, a national population census was initiated in June 2005.

poor in rural areas and the dislocated. This will require the implementation of more efficient and effective service delivery models. The Central Government is currently providing technical assistance for private providers, and offering a menu of approaches for rural areas. Based on Mexico's experience, an expansion of demand-side measures through *Familias* would accelerate the process of reaching the poor.

Objective 3. Improve the quality of primary and secondary education. With the mechanisms largely in place to promote universal coverage, this objective should be at the top of the agenda. The issue of quality and relevance, especially in the technical education track of upper secondary education, becomes increasingly important in encouraging secondary enrollment and completion, and in increasing the pool of students ready for tertiary education.

Despite recent improvements in national standardized achievement tests, the performance of Colombian students in international tests has been less than satisfactory. Since first participating in the Third International Mathematics and Science Study (TIMSS) in the mid-1980s, Colombia's results have consistently been very low; and in the Progress in International Reading and Literacy Studies (PIRLS) test in 2003, Colombia ranked 30th among 33 participating countries (Figure 5).

Figure 5. PIRLS Results, 2003

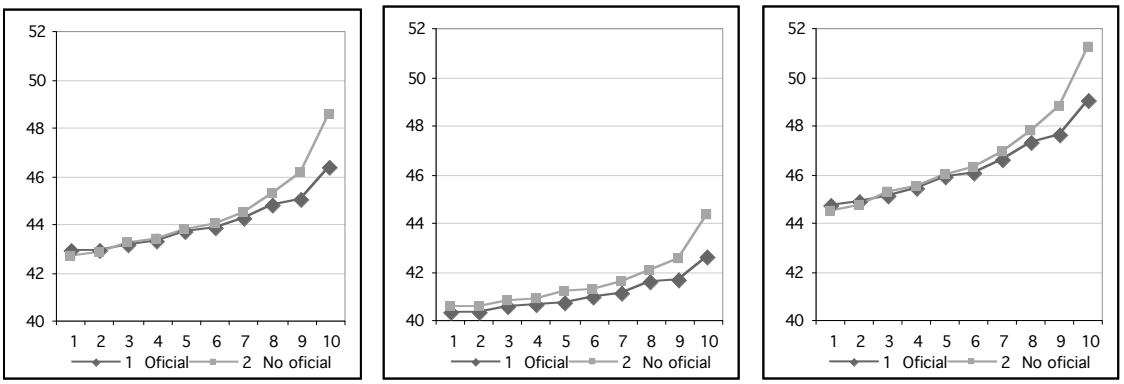


Source: PIRLS, 2003.

Quality and equity. In addition to test performance, quality must be considered in terms of equity, since outcomes in both public and private (official and unofficial) schools are also affected by socioeconomic status (Figure 6). In all disciplines, there are major differences between the scores of students in the first socioeconomic decile and those in the upper deciles. In core competencies and language, public school students in the first two deciles achieve better scores than those attending private schools. However, as the socioeconomic level of families increases, private school students show an advantage over public school students. Finally, in math, students in private schools perform better than their peers in public schools at all socioeconomic levels.

Figure 6. Socioeconomic Status and Academic Performance, 2001

Core Competencies **Math** **Language**



Note: Socioeconomic status calculated from registration forms.
Source: ICFES, 2001; state exams.

Low quality can be attributed to several factors. In 2002, only 5 percent of public expenditures for education were directed to enhancing quality through teacher training, improved pedagogical material, education technology, and other measures. As noted, efficiency gains under Law 715 are expected to increase the level of resources devoted to pre- and in-service training, and to improving supervision, curriculum, textbooks, educational materials, science labs, and infrastructure. In addition, several sub-national governments have also availed themselves of multilateral support for institution building to support quality enhancement.

Colombia, to its credit, has never shied away from international assessment and is currently participating in three: TIMSS, PISA and the Regional Comparative and Explanatory Study (SERCE), which tests learning achievements among third and sixth grade students, and examines associated factors, in the areas of language, math, natural sciences, and life skills.

With regard to national testing, a census-based evaluation of competencies has been established for grades five and nine (which correspond to the end of the primary and lower secondary cycles) in the areas of math, language, natural sciences, and civics. These tests are to be conducted nationwide every three years, with the results to be used by schools, municipalities, and the Ministry of Education as a basis for improving the quality of education.

Low relevance of the subject taught in technical secondary education is another important issue as reflected in the high dropout and low completion rates. The system is plagued by the lack of articulation with local and regional demand; outdated curricula (especially the absence of competencies required by the labor market), outdated pedagogical practices; low teacher quality; lack of educational inputs, and lack of information and orientation for students.

The reform that the national government is currently implementing in secondary education is in the right direction by promoting alternative education paths to equip students with marketable competencies, by transforming the curriculum and bringing the schools and the productive sectors closer. However, further measures could help forge better linkages among secondary, technical, professional/vocational, and post-secondary education and the labor market.

Lifelong learning. Achieving universal coverage also means not ignoring those who have dropped out the system. Beyond equity concerns, there is an almost linear relationship between earnings and education for the age groups considered, which suggests there may be a large potential for formal lifelong learning. Rates of return to education remain profitable for the individual for all levels of education until at least the age of 40, with returns of 5 percent, 11 percent, and 15 percent, respectively, for workers at who reenter primary, secondary, and tertiary education at the age of 35. These results are only two or three percentage points below the return to 20 year-olds. Hence, policies that encourage adult workers to pursue formal lifelong learning could lead to important gains. With adult illiteracy hovering around 20 percent in rural areas of several departments, lifelong learning also has an important role to play in achieving equity.

Lifelong learning is hindered, however, by a disconnect among technical secondary education, SENA, and technical higher education. As a consequence, there is a lack of curricular articulation and professional progression for students graduating from secondary education who want to continue their technical/professional education in tertiary education or in SENA. The same situation is valid for those who abandon secondary education but need recognition of what they have learned in particular areas in order to pursue short employment-oriented courses or to re-enter formal education. Further, both secondary education and technical higher education curricula are designed under different educational authorities and, except for SENA, are both insufficiently attuned to the needs of the productive sector.

Objective 4. Increase the coverage, relevance and equity of higher education. For tertiary education, the gross enrollment rate grew from 11 to 21.4 percent between 1985 and 2003. Despite this progress, tertiary enrollment continues to be lower than in most countries in the region. Colombia ranks above only Brazil (21 percent) and Mexico (22 percent), but below Peru (32 percent), Bolivia (39 percent), Venezuela (40 percent), Chile (42 percent), and Argentina (60 percent).

Tertiary education also suffers from high inequality (Figure 3). Higher education is virtually nonexistent in the first deciles, while 47 percent of the population belonging to the highest decile has reached higher education. The distribution of higher education enrollment by type of institution also differs by income quintile and ethnic background. While most students attending private and traditional universities come from the highest income quintile, youths from the lowest quintile are more likely to enroll in non-university institutions. The current Administration has moved dramatically to begin increasing enrollment and improving equity. It has expanded the loan program for low income students (ACCES) provided by ICETEX, in order to take advantage of the excess capacity in both public and private institutions. Between 2003 and early 2005, as 212,000 new higher education places were created, the enrollment rate increased to 26.5 percent. The dropout rate also fell during this period (2004-2005) from 15.2 percent to 13.4 percent.

In conjunction with this higher education initiative, the Government has also implemented the National Quality Assurance System, which includes voluntary accreditation of programs and institutions, minimum quality standards, and exit exams to assess the competencies of graduates. In addition, a labor observatory has been established to improve the relevance of courses and provide information on job opportunities to prospective students.

Conclusions and Policy Recommendations

Much of the framework needed to improve educational outcomes has been put into place, and some improvements are already being realized. The goals of Vision 2019 are largely feasible – indeed, several additional objectives should be added – but could be realized more quickly with further improvements in sector governance, and with demand-side initiatives to improve targeting and respond to identified needs. More specific recommendations are discussed below.

Early childhood development. A demand-side initiative, such as the expansion of *Familias,* could greatly accelerate the incorporation of more children and help ensure targeting to the poor. This measure would require more fiscal resources than other ECD programs, but could achieve almost universal coverage (significantly above the current coverage of 87 percent) in the transition grade. As noted, increasing pre-school attendance is an effective way of lowering repetition and dropout rates further along in the system, and the implied savings should be factored into the fiscal equation over the medium term. The Government should probably desist from making these lower grades obligatory, so as not to dilute the initial effort by incorporating children from better-off families, where the need is less and financial resources are less of a constraint. That option could be explored later. Not making attendance obligatory to begin with should facilitate acceptance, although attendance could also be made a requirement for families receiving benefits.

Universal coverage of primary and secondary education. Incentives and resources made available under Law 715 should facilitate achievement of these goals; however, reaching marginalized populations will require specific interventions. For equity reasons and to facilitate implementation, the Central Government needs to continue to develop and promote alternative service delivery models, including private contracting, and to co-finance initial investment with local governments. Replication of the models would benefit from rigorous impact analysis. Demand-side incentives are also likely to be needed, particularly at the secondary level to promote staying in school and to provide a channel into tertiary education. In the regard, an instrument targeted to the poor could be a savings program for secondary students, which is being piloted by Mexico through *Oportunidades* should be explored.

Quality as a top priority. Improving the quality of education will require a major commitment, beginning with the development of effective assessment systems to guide investment decisions and assess their impacts. International testing can also be used to set benchmarks and shed light on the determinants of learning. As noted, Colombia is participating in PISA, which has been used by other countries, including Jordon, Finland, Germany, and Mexico, as a framework for public debate and policy formation. To facilitate the use of PISA results in Colombia, where local governments are largely responsible for education, those results should be representative of local conditions.

National testing as proposed under Law 715 provides a strong basis for improving quality by targeting individual schools and making the information available for local diagnostics. To be effective, however, this testing should be accompanied by greater accountability and autonomy, including parent and community participation. In Colombia, in spite of the decentralization, parental participation in school-level decisions is relatively low. In contrast, several European countries, e.g., Finland, principals, teachers, parents, and other representatives of the community manage publicly financed schools through school governing boards. In Latin America, several Central American countries have introduced reforms to devolve school management to communities, and these community-managed schools have proven effective in ensuring broad access to quality education. Mexico has had great success in improving results through local parent groups, even in poor rural schools. Within Colombia, the *Alianzas* program encourages community participation in rural schools; and several departments, with multilateral support, also have programs to empower schools and communities.

The National Government should take the lead in promoting quality by developing a vision in conjunction with stakeholders, and setting goals based on the needs of each local jurisdiction. Increasing coverage almost invariably results in an initial decline in overall quality, as more marginal populations are brought into the system. Improved national results will grow out of a focus on the performance of local jurisdictions and individual schools.

The funding for quality improvements will need to be based on savings under the current financing mechanism; thus, Federal support to enhance department-level efficiency will be critical for success.

Lifelong learning. The expansion of education programs for the adult population is also crucial for improving equity and raising the average level of schooling among the population. The promotion of alternative and flexible pedagogical models has been effective in recent years in solving access problems in urban areas, and even more so in remote rural areas, where it can be difficult and costly to provide education using traditional methodologies. Under the current agreement between MEN and SENA, it is now possible to: (i) institutionalise mechanisms for recognition, evaluation, certification, and accreditation of the knowledge, skills and competences acquired through life, outside of the formal system; (ii) establish a modular system allowing the portability of learning and skill gains from one educational institution to another, and from one productive job to another requiring similar skills; and (iii) provide credit for acquired knowledge, whatever its source, for educational and certification purposes.

Higher education coverage and quality. The financing and quality mechanisms put in place for higher education are already showing positive results. More public and private financing could accelerate the process at relatively low cost, given that excess capacity still exists in both public and private institutions. In particular, attempts to introduce a results-based framework for allocating resources to public institutions should continue, given important payoffs for increasing enrollments and improving quality. Resolving the disconnect between SENA, secondary education and technical higher education would also help to provide more options to students. On the demand side, scholarships for poorer students could also be tested, along the lines of the current *PRONABES* program in Mexico, which will attempt to pilot income-contingent cost recovery. As in Mexico, a scholarship

program could include targeted interventions for particular students (such as indigenous students) at the secondary level, and for those already attending tertiary schools.

The first one hundred days. The initial months of the new Administration should focus on establishing the political and institutional framework required to reach consensus on this comprehensive education program, both with civil society and across ministries. Efforts should focus, in particular, on:

- Fitting proposed demand-side measures into the larger Social Protection System, to ensure the right incentives
- Convening stakeholders to develop a national strategy for enhancing quality in education using PISA as a benchmark
- Designing and disseminating a support package for departments to improve efficiency, reach marginal populations, and enhance quality
- Improving the linkages among adult education, training, and the skills needs of the private sector
- Developing, in the frame work of LLL principles, a technical education policy attuned with the labor market; and
- Building on existing efforts in higher education to enhance quality and supply, and access by poor students.

Reducing Inequalities and Improving Health Status[56]

Abstract: Improvements in the performance of Colombia's health sector are needed to help reduce historical inequalities in access to health services and in health outcomes; to break the vicious cycle of poverty and illness through financial protection; and to minimize historical inefficiencies in the provision of supply-side subsidies to public hospitals. Under Vision 2019, the main objectives of health policy include universal insurance coverage; separation of financing from provision; reduction of maternal and infant mortality and of the incidence of communicable diseases; and improved reproductive health. To achieve these goals, the new Administration will need to work on many fronts to change the paradigm for vigilance and control, strengthen public health, improve benefit plans, resolve the ongoing social security (ISS) issue, and ensure quality care. At the same time, in order to strengthen the political economy of the reform and facilitate implementation, the new Administration should give priority to supporting the five departments now committed to universal insurance coverage. This would provide an opportunity to closely follow the implementation of the health system reform, and to provide alternative solutions when proposed policies do not work under specific settings.

[56] This chapter was written by Maria Luisa Escobar with the collaboration of Mark Hagerstrom and Juan Pablo Uribe.

Introduction

This Note is divided into three main parts. The first section reviews the recent performance of the health sector, with reference to the main challenges posed by the Policy Notes prepared for the previous Administration. The second part discusses the general framework of Administration policy for the next decade, as outlined in Vision 2019. Finally, the Note offers policy recommendations for attaining these goals.

Colombia has made significant progress in reforming the health sector and improving outcomes (Table 1). However, structural poverty, vulnerability, and inequality remain important challenges in the delivery of health services.

Table 1. Health Outcomes

Indicator	Present Situation (percent)
Population growth rate	1.68
Fecundity rate	2.6
Population with health insurance	64
Immunization coverage	93
Infant mortality rate	24.4
Maternal mortality	100.1
Adolescent pregnancy	19.1

Sources: DNP, Mision de Pobreza, DANE, Encuesta de Calidad de Vida 2003. From Colombia 2019.

The reform of 1993 sought to reduce historical inequalities in access to health services and in health outcomes; to break the vicious cycle of poverty and illness via effective financial protection; and to minimize historical inefficiencies in the provision of supply-side subsidies to public hospitals. Quality of health care was meant to improve via enhanced competition, consumer-informed choice, quality guarantee systems, and proper incentives. Improved governance and social participation at all levels sought to help break with traditional monopolies and political interference in the sector.

Recent Progress

The new Administration is committed to building on the 1993 reform and to addressing a number of structural and operational challenges were identified by the Bank.

Structural challenges include: (i) the Social Security Institute (ISS), and (ii) the public hospital network, both of which have organizational, financial, operational, and corporate structures that jeopardize the financial sustainability of the social health insurance system; and (iii) the differences in coverage of the mandatory benefits plans.

- Operational challenges include: (i) difficulties in the transfer of financial resources; (ii) evasion of social security contributions; (iii) a deficient of information to facilitate informed choices by beneficiaries and for policy design; (iv) legal disputes over the protection of patients' rights; (v) deficient quality of care; and (vi) threats to public health from inadequate immunization programs.

The challenges in each of these areas is discussed in more detail below.

The Social Security Institute. Following on complex negotiations with a very strong union, the Administration was able to reform the ISS in 2002. Labor costs were reduced, and the pensions and health businesses were separated, as were health insurance and service provision. Nonetheless, the fiscal burden imposed by the Institute remains to be resolved. Providers have been reorganized into seven networks, but most of them are financially unsustainable under current circumstances.

The public hospital network. The transition from supply-side to demand-side subsidies has been a slow and difficult process, and is stagnating. Although 179 public hospitals have been restructured as of June 2005 (in the first restructuring wave, 21 hospitals introduced efficiency measures that reduced operational costs by 22.8 percent within two years), the overall situation of the public hospital network is still a great source of concern. Hospital restructuring efforts need strong negotiation between the central government and local authorities. Decentralization also transferred ownership of the hospitals to sub-national governments, and although a hospital reform effort could be beneficial for the Treasury, it cannot be easily introduced at the local level when local authorities have too much at stake politically to allow this to happen.

Benefit plans. The Government has introduced a third type of benefit plan which provides fewer benefits than the subsidized regime for those individuals in SISBEN 3 who are not yet covered by any part of the social security system.

Transfers. Under the previous Administration, delays in transfers from sub-national governments to insurers and hospitals had been hampering their performance. The new Administration has successfully intervened to accelerate transfers to insurers, but transfers to hospitals remain slow, which aggravates their financial situation.

Evasion of social security contributions. Improved information systems and enforcement have reduced evasion, increasing available resources by about 23 percent; nonetheless, continued evasion potentially reduces the volume of resources in FOSYGA, thereby limiting insurance expansion. The Uribe administration was strongly committed to improve

information systems and to expand vigilance and control activities that helped enormously to reduce evasion and to improve fiscal responsibility among local authorities. The information system for the Social Protection System at the national level was designed and it is being built at present. A unified system for social security contributions was successfully introduced thus facilitating employers to consolidate the information on contributions and reducing elusion and evasion.

FOSYGA accounts. Under the previous Administrations, all of the resources in the Solidarity and Guarantee account under the National Budget Law were not being released for use in expanding insurance coverage among the poor. Only part of the resources originally destined by law to cover the financial cost of insuring the poor, were allocated to the subsidized regime. The rest was invested by the Treasury in the capital markets. Under the current Administration, while the Solidarity account remains in the National Budget and ceilings on spending are imposed, there is strong commitment to allocate at least part of the resources invested in TES to expand coverage in the subsidized regime.

Information. Lack of information among the population was hindering implementation of the reform and reducing its potential benefits. Unfortunately, public information on the overall system, its specific instruments, and numerous regulations remains scarce. This has been exacerbated by the updating of SISBEN, which continues to create complex situations given that all beneficiaries need to obtain an updated SISBEN score and in many cases this will translate into entitlements that need to be taken away from individuals who already are benefiting from them.

Legal challenges to the health benefits plan. *Tutelas* demanding the "right to life" over and above the limits of the mandatory health plan have exploded in number and cost, threatening the overall sustainability of the system and forcing a debate on the responsiveness of insurers.

Quality. Deficient quality of care was identified as a major challenge for health services under the previous Administration. A quality assurance system was designed and introduced in 2002, including licensing and accreditation for both institutions and individual providers, and substantial progress was made on these issues between 2002 and 2004, with the Ministry of Social Protection (MSP) and sub-national governments collaborating on implementation of new standards for provider licensing. Hospitals self-monitor their fulfillment of standards, with random auditing by officials from the departmental and municipal health directorates. By 2004, 70 percent of third level hospitals had been licensed following this procedure. In 2004, the MSP prepared and disseminated guidelines for accreditation to individual providers. However, stronger monitoring and enforcement capacity is necessary to ensure that high quality standards are consistently observed in health service delivery.

Public health. Immunization coverage is a key public health issue and a fundamental measure to prevent poverty-inducing illness. In 1995/6, vaccination coverage rates were above 90 percent for all key vaccines, thus providing "herd immunity" so that if a person did contract an illness, a sufficient percentage of the population was vaccinated to prevent an epidemic. However, between 1996 and 2001, average coverage ranged between only 72 and 77 percent, putting Colombia at a serious public health risk. The dramatic fall in immunization rates was attributed to inadequate funding and organizational changes

associated with decentralization; as well as the shift to an insurance-based system, which generated uncertainties about responsibilities for implementing and overseeing various components of the immunization program. The Administration made substantial efforts to improve the operation and performance of its immunization program during 2002/04, leading to an increase in vaccination rates from 82 percent to 93 percent. The increased coverage was due to a mixed strategy. Spending on the immunization program was stabilized through allocation of funds from the Solidarity and Guarantee Fund and through working with the Ministry of Finance and Credit (*Ministerio de Hacienda y Credito* - MHC) to guarantee an adequate annual budget. In addition, institutional responsibilities for the immunization program – especially those of municipal governments – were clarified. New regulations requiring that schools request immunization cards as part of student enrollment increased the demand for vaccinations[57], as did the conditional cash transfer program *Familias en Accion,* which also required vaccinations.

Vision for the Future

The strategy of the new Administration focuses on both mitigating health risks and their consequences, and on the financial protection of households, in order to prevent family impoverishment from a health crisis. Within this risk management framework, the Administration's goals for the sector are:

- ***Universal health insurance coverage.*** Both the extension of health insurance coverage and the harmonization of health insurance plans across regimes is a fundamental part of the strategy to reduce inequalities and improve the health status of the population. However, the benefits of universal coverage are conditional on improved control practices for the health system, better quality and dissemination of information, and consolidation of the quality assurance system. The expansion of coverage would be achieved by consolidating and improving targeting mechanisms, and by improving the financial structure and sustainability of the *Sistema General de Seguridad Social en Salud* (SGSSS) by:
    - defining and implementing an incentive structure to ensure social security contributions by all citizens with the ability to pay;
    - providing innovative mechanisms for attracting independent workers with some capacity to pay to either insurance regime;
    - adjusting the tax structure to include lotteries and other gambling activities that finance the health sector; and most importantly, and
    - using resources more efficiently by restructuring the public hospital network, designing and implementing a methodology for transitioning to demand-side subsidies, and improving the fiscal capacity of local governments for to co-finance the insurance scheme.

[57] The cards have not been made a requirement for enrollment, for fear that they would deny access to education. But they do serve as an additional way to encourage parents to have their children vaccinated.

- **Improved public health outcomes.** Better health outcomes – including lower population growth, decreased maternal and infant mortality rates, a lower incidence of communicable diseases, and improved sexual and reproductive health – will have an important impact on poverty and inequality conditions. To achieve these goals, it will be necessary to strengthen public health management both technically and institutionally, through the training of personnel, improved surveillance systems, consolidation of health promotion and prevention plans, and strengthening of information systems to ensure accurate epidemiological data.

Policy Recommendations

Despite the important expansion of coverage in the last four years of both the contributory and subsidized regimes, universal coverage will be difficult to achieve as long as problems persist in modernizing the public hospital network, improve its financial feasibility and quality of care; in transitioning from supply-side to demand-side subsidies, and in the exponential growth of costs generated by the *tutela* mechanism. All of these issues need to be forcefully addressed.

Current challenges in the health sector are similar to those that were already identified in 2002, and the recent efforts in Congress to reform Law 100/93 tried to introduce mechanisms to face such challenges and to improve the implementation of the reform effort. To reduce inequalities and strengthen human capital investment in all population groups, it seems reasonable to emphasize the need to strengthen policies that have improved the targeting of public subsidy allocations, and to use the system of progressive contributions already in place. The Poverty Mission at DNP has indicated that demand-side subsidies for health are the second-best targeted public subsidy, and that sector policies introduced in 1993 have improved the targeting of supply-side subsidies as well. However, the allocation of demand-side subsidies is the more pro-poor; thus making the transformation of supply into demand subsidies a core policy for reducing inequality. This transformation is also necessary to allow risk management mechanisms such as the subsidized health insurance scheme to expand their coverage, in order to protect the poor from further impoverishment when facing health shocks. The political economy of such a transformation is complex, involving labor unions, and regional and local political forces in reshaping the hospital network. This will be a highly visible initiative with large political costs for those who support and implement such changes. Very skilled negotiations between national and local authorities are required to ensure that the process will be smooth and successful.

Supporting reform at the sub-national level. In the *short term*, it is important to support the commitment of the five *departamentos* that are attempting to achieve universal insurance coverage before the end of 2006. Such initiatives should rely on co-financing from local authorities as has been proposed, as transformation of supply into demand subsidies needs to be supported by local authorities in order to maintain universal coverage over time, Co-financing from local authorities is crucial for improving fiscal discipline, monitoring and evaluation, and improving the quality of care at the local level. The efforts of these departments also provide excellent opportunities to test new policies with regard to controlling evasion; creating incentives for independent workers to contribute to the SGSSS; and introducing partial subsidies for those who cannot afford to join either regime, but can

pay part of the contribution to social security. Supporting the efforts of the five *departamentos* would also help the SGSSS to develop a concrete methodology to evaluate results and determine which approaches are most effective.

Vigilance and control system. Vigilance and control activities in the sector need to concentrate on outputs/results instead of inputs or processes and should have the well being of beneficiaries as its main concern. This change could be introduced in the *medium term*, since it requires the definition of indicators, and the development of information systems and practices, that support the objectives of improving health outcomes and financial protection. In the *long run,* by 2010, a simple system for monitoring outputs should exist throughout the country.

Quality assurance program. In the *short term*, the administration must enforce the existing regulations on quality of care for both health care service providers and insurers. Political will is necessary to accomplish this goal, given the strong political pressures against enforcing high quality standards from local governments and other interest groups that could be penalized for not complying with those standards. In the *medium to long term,* quality standards should be enforced through a results-based control and vigilance system, as well as by quality-based contracts between insurers and providers. A high quality system for evaluation of adequate technology needs to be developed.

Public hospital network and the seven ISS networks. To successfully restructure and redefine the public hospital network, including those facilities in the seven ISS networks, strong political commitment is essential, both *immediately* and throughout the restructuring process. Deep and strong restructuring is needed to move the public hospital network towards competitive levels already obtained by many in the private sector. In the *medium to long term,* it will be necessary to invest in developing technical and managerial skills as well as in physical assets.

Benefit plans. The financial sustainability of the SGSSS is directly dependent on the size and composition of the benefits package. The mandatory benefits plan – POS – in the contributory regime needs extensive revision by an independent technical body using modern technology assessment, as well as modern cost benefit and cost effectiveness practices. Before considering the harmonization of benefit plans in the contributory and subsidized regimes as originally proposed by Law 100/93, which is important for equity reasons, it is important to evaluate whether the SGSSS is capable of providing the current high level of POS benefits. This evaluation should be a technically sound and transparent exercise that begins in the *short term*. Moreover, the observed exponential growth of the *tutelas* phenomenon, if not managed well and in a timely manner, will certainly destroy the SGSSS. This is one of the system's greatest challenges, since a revision of the POS will require legal changes that could take up to four years. However, it is possible to pave the way for these changes in the *short to medium term* by (i) appointing an independent technical body to do the necessary technical analysis to evaluate the contents of the POS, and leave to the National Council for Social Security for its approval; (ii) beginning a transparent process of analyzing particular health care interventions, and disseminating the results promptly;

(iii) using the results of such work to reform the POS; (iv) designing and implementing an educational program for judges who rule in health care *tutelas* as soon as possible; (v) using existing technical studies on the *tutelas* to understand the different causes[58] of this phenomenon; (vi) based on this work, designing and implementing the appropriate controls over the approval of *tutelas* that clearly respond to vested interests, abuse the system, or do not benefit all members of the SGSSS.

Public health. To prevent the risk of the spread of communicable diseases, including sexually transmitted diseases and those requiring vector controls, it is important that the Administration, in the *short term,* consider designing a massive public health plan for immediate implementation. Health status results should be monitored and made public in the *medium to long term*. In addition, to prevent rapid population growth, the provision of contraceptive and appropriate education for their use should be facilitated over the *short term* within both insurance regimes. Vigilance and control over such practices should be enforced.

[58] *Tutelas* are a result of a mix of responses to the behavior of providers, insurers, and patients in the SGSSS. Some respond to commercial interests of pharmaceutical and medical supplies companies; others to restrictions of access to interventions in the POS that should have been provided to patients; and others, to medical interventions not considered in the POS.

References

Bitran R., Giedion U. and Munoz R. "Risk Pooling, Ahorro y Prevencion: Estudio Regional de Politicas para la Proteccion de los Mas Pobres de los Efectos de los Shocks de Salud", August 2004, The World Bank.

Department of National Statistics (Departamento Nacional de Estadísticas, DANE), in the Program "Así Vamos en Salud

Escobar M. L. and Panopoulou P. health chapter in "Colombia: The Economic Foundation of Peace", edited by Giugale M., Lafourcade O. and Luff C.; the World Bank, December 2002.

Napoleón Franco "Bogotá Como Vamos", survey, October 2002.

Peñaloza E. and Henao E.V "Régimen Subsidiado de Salud en Colombia: Evaluación y Propuestas de Ajuste",.; CENDEX and Fundación Corona, 2002.

Profamilia "Salud Sexual y Reproductiva en Colombia: Encuesta Nacional de Demografía y Salud 2005";, November 2005

Ramírez M., Gallego J. M. and Sepúlveda C. (2004): "The Determinants of the Health Status in Developing Countries: Results from the Colombian Case", No. 41, Facultad de Economía, Universidad del Rosario.

Ruiz F. "Social Health Insurance and Access: Results from a Colombian Longitudinal Study". 2005

World Health Organization, "World Health Report 2000 – Health Systems: Improving Performance":

Environmental Degradation and Children's Health[59]

Abstract: Colombia has made major strides in the last 50 years in establishing a decentralized and innovative environmental management framework in which multiple stakeholders play a role in environmental management. While the country has made progress in strengthening its institutional capacity and managing its natural resources, challenges remain in addressing the environmental problems that disproportionately affect the health and productivity of the most vulnerable. Waterborne bacterial diseases and ambient and indoor air pollution pose the highest costs, accounting for approximately 2 percent of GDP, due primarily to increased child morbidity and mortality. Diarrhea, which accounts for approximately 7.3 percent of child mortality, is the most common and widespread waterborne disease and is most prevalent in rural zones populated by the poorest segments of the population. In fact, there are approximately 2.9 cases of diarrheal illness per child each year. A recent meta-analysis of water, sanitation, and hygiene interventions highlights the importance of incorporating hygiene interventions – which can reduce diarrheal illness by up to 45 percent – into programs for reducing waterborne diseases. Air pollution is also a significant problem, with particulate matter alone responsible for an estimated 6,000 premature deaths and 7,400 new cases of chronic bronchitis in Colombia every year. To tackle this problem, Colombia urgently needs to intensify its efforts to implement a broad strategy for reducing general urban air pollution, particularly fine particulate matter.

[59] This chapter was written by Angela Armstrong. The author wishes to acknowledge the contributions of Ernesto Sanchez-Triana to this chapter. In addition, the chapter draws heavily from the Sector Report *Colombia Mitigating Environmental Degradation to Foster Growth and Reduce Inequality*, managed by Ernesto Sanchez-Triana and Kulsum Ahmed

Introduction

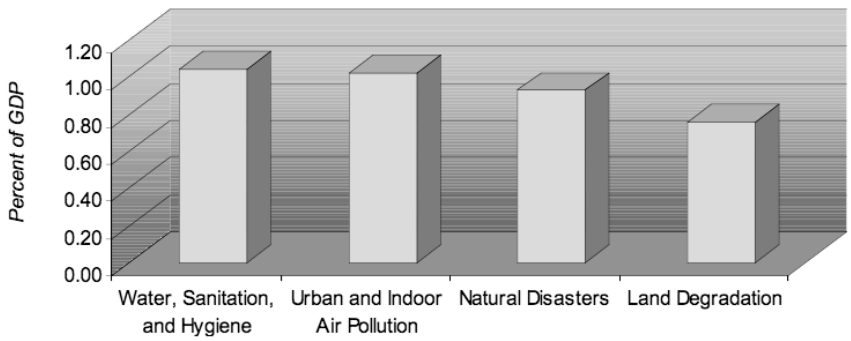
Over the past five decades, the Government of Colombia has engaged in a number of activities to protect the environment, ranging from restructuring the legal and regulatory landscape to strengthening institutional capacity for protecting and managing natural resources and environmental quality. During this time, Colombia's environmental management framework has focused on three main priorities: (i) river basin management and conservation of water bodies; (ii) reforestation; and (iii) conservation of biodiversity. The Government has made important advances in these areas, including establishing a system of national parks and forestry reserves that covers more than a quarter of the national territory. With increasing urbanization, however, new environmental challenges have arisen that have yet to be fully addressed. These challenges include the impacts of human activities on the environment, such as (i) localized environmental health problems associated with inadequate household water and sanitation and indoor air pollution; (ii) urban and regional air pollution, inadequate waste management, and contamination of rivers, lakes, and coastal areas; and (III) natural resource degradation and global environmental problems. This environmental degradation threatens the well-being of current and future generations, particularly the most vulnerable segments of the population (children and the poor) who are disproportionately affected.

A recent analysis of the cost of environmental degradation shows that the most significant environmental costs to the country are associated with inadequate water supply, sanitation and hygiene, and ambient and indoor air pollution[60]. The burden of these costs falls most heavily on poor children under the age of five. The effects of degradation associated with these principal causes are estimated to cost approximately 2 percent of GDP, due primarily

[60] Larsen (2004).

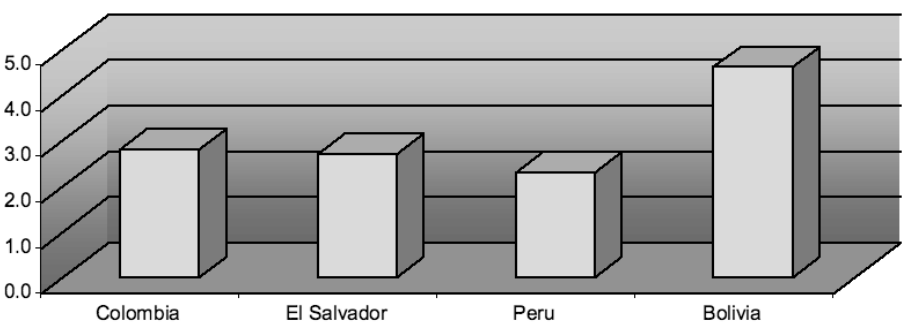
to increased mortality and morbidity from waterborne diseases (particularly diarrheal illness), respiratory infection, and cardiopulmonary disease (Figure 1)[61]. Similar studies on the cost of environmental degradation in Peru, El Salvador, and Bolivia indicate that the cost of environmental degradation from factors affecting public health and quality of life (e.g., inadequate water, sanitation and hygiene, and air pollution) is highest in Bolivia, followed by Colombia, El Salvador, and Peru (Figure 2). The estimated number of annual deaths in Colombia from urban air pollution and road accidents is several times higher than from other sources of environmental degradation (Figure 3). For children, however, inadequate water, sanitation and hygiene represent the largest mortality risk, followed by road accidents and indoor air pollution (Figure 4).

Figure 1: Annual Cost of Enviromental Degradation (% of GDP)



Source: Larsen (2004)

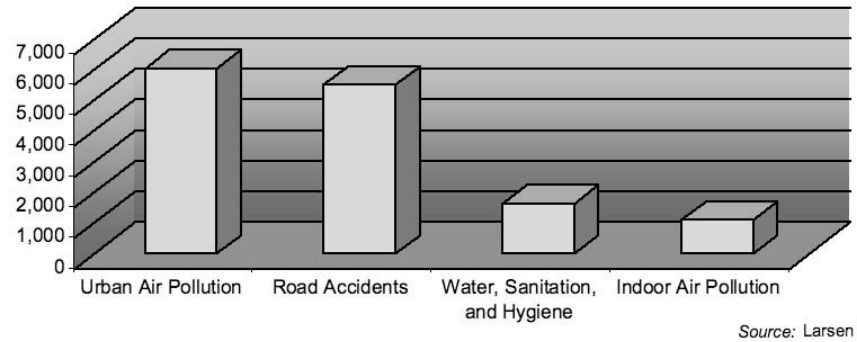
Figure 2: Cost of Environmental Degradation (Health and Quality of Life)



Source: World Bank (2006)

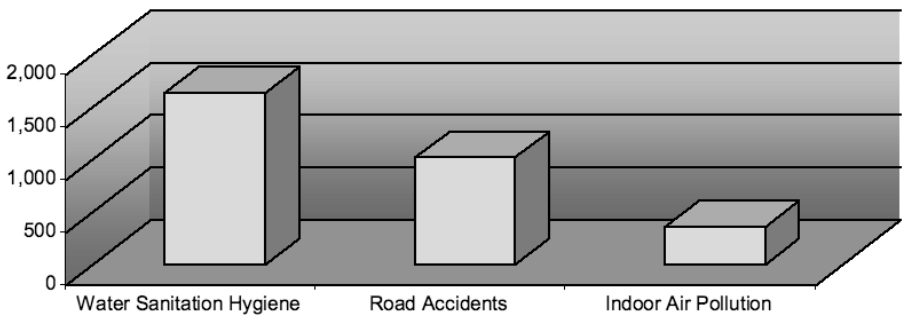
[61] Estimates of social and economic costs of environmental damage in Colombia are based on the national estimates presented in Larsen (2004), which provides costs for five environmental categories: (i) water, sanitation, and hygiene; (ii) natural disasters; (iii) urban air pollution; (iv) agricultural land degradation; and (v) indoor air pollution. The mean annual costs of environmental damage for these categories are estimated to total 3.7 percent of GDP. Although the analysis of the cost of environmental degradation relied extensively on large sets of statistics and data from the National Department of Statistics (DANE), various ministerial departments, government agencies and environmental authorities in Colombia, the analysis was restricted by data limitations (Larsen, 2004). Costs of deforestation and water pollution were only partially and indirectly estimated due to data limitations. Some of the cost of deforestation was captured in the cost of natural disasters (flooding, landslides) and agricultural land degradation insofar as deforestation contributes to natural disasters and soil erosion. Other costs of deforestation, such as impacts on water resources and recreational value, were not estimated. The cost of water pollution was captured only in terms of waterborne (diarrheal) illnesses. Other costs, such as potential impacts of heavy metals and chemicals on health and recreational value, or biodiversity loss were not estimated.

Figure 3. Number of Deaths by Category



Source: Larsen (2004)

Figure 4: Deaths among Children under Age Five, by Category



Source: Larsen (2004)

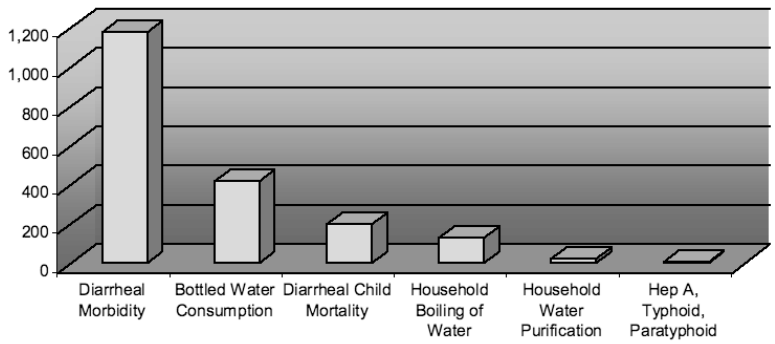
Waterborne diseases

The poorest groups often lack adequate sanitation and water supply. Approximately 12 percent of the population does not have access to an improved water source, and the lack of sewerage in 75 percent of rural areas and 8 percent of urban centers is a serious environmental problem for the country[62]. Inadequate water supply, sanitation facilities, and hygiene practices, in particular, are associated with various illnesses in both adults and children, including schistosomiasis, hepatitis, and diarrhea. While diarrheal illness is generally not as serious as some other waterborne illnesses, it is more common and affects a larger number of people. Data from the National Department of Statistics (DANE) indicate that about 7.3 percent of child mortality is caused by diarrheal illness, which is most prevalent in Colombia's poorest rural areas (e.g., Choco, Cauca, Valle, and Nariño). Although Colombia has achieved significant reductions in child mortality from diarrhea and other diseases, the costs associated with diarrheal morbidity from contaminated water and poor hygiene in both children and adults remain high (Figures 5 and 6) [63]. In addition, although diarrheal morbidity bears a higher cost to the country, it is very difficult to identify all cases. The main reason is that a substantial share of cases is not treated or do not require treatment at health facilities, and therefore are never recorded. A second reason is that cases

[62] Colombia Demographic and Health Survey (2005).
[63] Child mortality is now about one-third lower than the Latin America and Caribbean Region as a whole, and almost 50 percent lower than the average for lower middle-income countries.

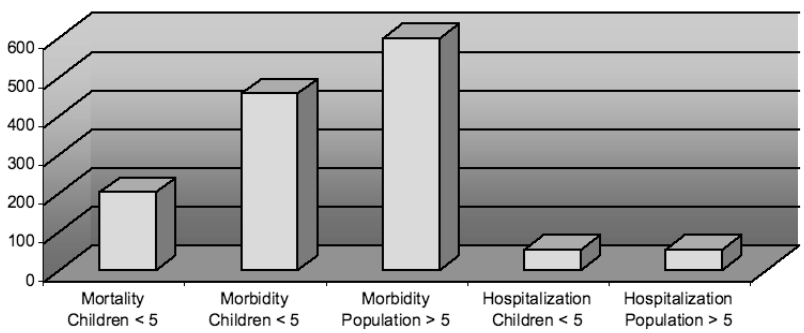
treated by private doctors or clinics are most often not reported to public health authorities. Household surveys therefore often provide the most reliable indicator of total cases of diarrheal illness. The total annual cost of health impacts associated with diarrheal illness is estimated at 1,363 billion pesos (Figure 6).

Figure 5: Annual Costs of Inadequate Water Supply, Sanitation, and Hygiene



Source: Larsen (2004)

Figure 6: Estimated Annual Cost of Diarrheal Illness



Source: Larsen (2004)

Currently there is no explicit, broad-based policy for preventing waterborne diseases. One of the ongoing interventions to prevent waterborne diseases, fostered since the early 1990s, has aimed to increase access to drinking water and sanitation. Although this program has helped to reduce the incidence of waterborne diseases in Colombia, it provides only a partial response to the problem of waterborne disease. According to a meta-analysis of the effect of water, sanitation, and hygiene interventions on diarrheal illness, improvements in water supply and sanitation provide a 30 percent expected reduction in diarrheal disease[64]. This analysis indicates that while multiple interventions consisting of water supply, sanitation provision, and hygiene education act to reduce diarrheal illness, they are not

[64] Fewtrell and Colford (2004). Under this analysis, a comprehensive literature search and bibliographic review of international publications was conducted: (i) 2,120 titles published prior to June 26, 2003 were screened; (ii) 336 papers were obtained for a more thorough examination; and (iii) 64 of these papers (representing 60 distinct studies) were identified, which detailed water supply, water quality, sanitation, hygiene or multifactorial interventions and examined diarrhea morbidity as a health outcome in non-outbreak conditions. Data were extracted from these papers and pooled through meta-analysis to provide summary estimates of the effectiveness of each type of intervention.

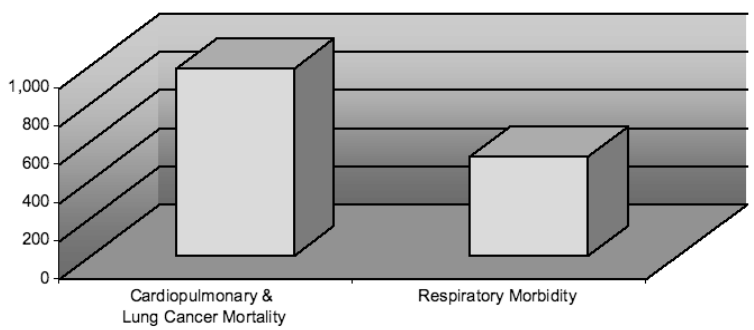
more effective than individual interventions. For example, the meta-analysis reports a mean reduction in diarrheal illness of about 45 percent from handwashing interventions, highlighting the importance of incorporating hygiene interventions into programs aimed at reducing waterborne diseases. Similarly, two other studies report the single most effective intervention to be handwashing after using the toilet, before preparing meals, and before eating, resulting in a mean reduction of 47 and 44 percent, respectively, in cases of severe diarrhea from good handwashing practices[65].

These analyses show that the most effective intervention to address waterborne diseases in Colombia would be a safe water program that promotes improved hygiene through handwashing. At 20 percent program effectiveness, that is, if 20 percent of the targeted population practices handwashing and household drinking water disinfection, such a program would prevent an estimated 16 percent of diarrheal illness and 18 percent of diarrheal child mortality[66]. Hygiene improvement thus has a substantial potential to reduce diarrheal illness and mortality. Handwashing initiatives that are currently underway in other countries have already shown significant results. In Ghana, for example, early results from a public information campaign to promote improved hygiene show that the target population that is washing their hands with soap increased by 41 percent before eating and 13 percent after using the toilet[67].

Urban air pollution

Ambient air pollution is one of the most widespread and serious problems in both cities and rural areas, and is linked to approximately 6,000 premature deaths per year. Although levels are moderate in most cities, the fact that close to 50 percent of the population lives in cities with more than 100,000 inhabitants creates substantial aggregate health effects, associated mainly with particulate matter. These effects include cardiopulmonary diseases and lung cancer in adults and acute respiratory illness, particularly in children, as well as death from related diseases such as pneumonia. Most of the associated costs of urban air pollution are linked to mortality and morbidity (Figure 7).

Figure 7. Annual Costs of Urban Air Pollution

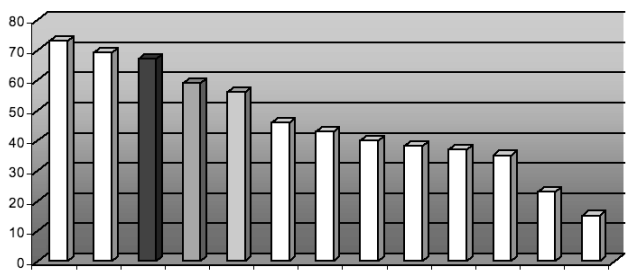


Source: Larsen (2004)

[65] Curtis and Cairncross (2003); Curtis (2002).
[66] World Bank (2006).
[67] Scott, Gabrah-Aidoo and Curtis (2005).

Urban air pollution resulting from transportation and industry has worsened, and is most critical in the country's industrial corridors, especially Bucaramanga, Medellín, and Baranquilla. Comparisons between the annual mean concentrations of PM_{10} in Colombia's main cities and those of other urban centers must be made with caution.[68] In many cases, the cities have a monitoring network in which concentrations vary widely from one station to another or from one time period to the next one, and thus the mean value may not accurately reflect the severity of air pollution. However, an approximation suggests that annual average PM_{10} concentrations in Bogotá are similar to those of other Latin American cities with severe air pollution, including Mexico City and Santiago. The differences in mean PM_{10} concentrations are much more obvious when compared with levels in cities outside the region. Cities with larger industrial production and transportation sectors, such as Los Angeles, Tokyo, and Rome, have successfully reduced their ambient concentrations to lower levels than those in Medellín and Bucaramanga (Figure 8). In addition, although several major pollutants, including ozone, are of concern in Colombia's urban areas, the most serious health effects are caused by inhaled particulate matter of less than 2.5 microns ($PM_{2.5}$).

Figure 8: Average Annual PM_{10} Concentrations in Selected Cities (î g/m^3)



Source: World Bank (2006)

The allocation of financial and human resources for addressing air pollution historically has been low, resulting in an urgent need to update regulations, issue standards, and develop economic instruments that minimize the concentration of fine particulate matter in the air (particularly $PM_{2.5}$). The Colombian government recognizes the importance of this problem and recently has carried out actions that include the creation of a National Technical Advisory Committee to prevent and control air pollution and the issuance of air quality standards[69]. Some of the most promising options for managing urban air pollution include implementing an air quality monitoring program to monitor $PM_{2.5}$ and PM_{10}, reducing the sulfur content of fuels, controlling emissions from stationary and non-point sources, converting gasoline and diesel cars to natural gas, retrofitting particle control technology for

[68] PM_{10} stands for particulate matter up to 10 microns in size.

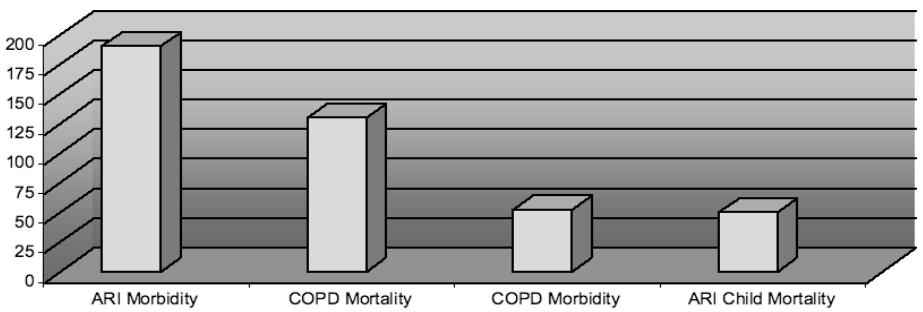
[69] Resolution 601 of April 2006 provides air quality standards for PM_{10}, SO_2, NO_2, O_3, and CO, with 70 µg/m3 set as the limit for the annual mean level of PM_{10}. The World Health Organization (2005) has established 20 µg/m3 as the air quality guideline (AQG) for the PM_{10} annual mean, in which meeting this guideline should protect against peaks of pollution that would lead to excess morbidity and mortality. Levels of 70 µg/m3 are estimated to be associated with about 15 percent higher long-term mortality than at AQG. Therefore, as recognized in Resolution 601, a measurable and targeted action plan to attain this international standard in the short term is recommended, together with the establishment of air quality standards for $PM_{2.5}$.

diesel vehicles, using tax incentives to encourage people to scrap older cars, and implementing inspection and maintenance programs. City planning interventions are also needed.

Indoor air pollution

An estimated 1,100 fatalities are related to exposure to indoor air pollution associated with the use of fuelwood, charcoal, and other solid fuels for cooking. More than 60 percent of rural households burn solid fuels for domestic purposes, exposing women and children in particular to harmful concentrations of particulate matter and gaseous pollutants. This exposure is linked to illnesses such as acute respiratory infections (ARI), chronic obstructive pulmonary disease (COPD), and cancer. The mean annual cost of these health impacts is estimated at 415 billion pesos (Figure 9). Table 1 shows the percentage of urban and rural households in a sample of countries throughout Latin America that use solid fuel for cooking.

Figure 9: Annual Costs of Indoor Air Pollution



Source: Larsen (2004)

Table 1. Households Using Solid Fuels

	Percent of households		
	Urban	Rural	Total
Bolivia 2003	8	79	34
Colombia 2000	2	61	18
Dominican Republic 2002	3	24	10
Guatemala 1998/99	32	78	57
Haiti 2000	89	98	95
Nicaragua 2001	38	92	60
Peru 2000	11	87	39

Source: Colombia Demographic and Health Survey (DHS) data.

As with other environmental problems, the adverse health impacts of indoor air pollution disproportionately affect the poorer segments of the population. Reducing these impacts will require a program of cross-sectoral interventions, which could include, for example, the use of cleaner fuels, technical mitigation options such as improved cooking stoves, and policies that promote improved housing design. Based on the experiences of countries at

similar levels of development, the benefits from these interventions are typically realized quickly.

As with other environmental problems, the adverse health impacts of indoor air pollution disproportionately affect the poorer segments of the population. Reducing these impacts will require a program of cross-sectoral interventions, which could include, for example, the use of cleaner fuels, technical mitigation options such as improved cooking stoves, and policies that promote improved housing design. Based on the experiences of countries at similar levels of development, the benefits from these interventions are typically realized quickly.

Solid and hazardous waste management

Colombia has made advances in solid waste management, as evidenced by the percentage of wastes disposed of in landfills. Further, the Colombian government has recently issued a resolution (Resolution 1390 of September 2005) that calls for the closure of open dumpsites or their transformation to regional sanitary landfills[70]. The government has also made a first step forward in hazardous waste management, approving in December 2005 a national policy for the integrated management of hazardous wastes that outlines the obligations of both hazardous waste generators and environmental authorities in waste management. However, a more effective policy on both solid and hazardous waste management is needed. The operation and management of landfills is often inadequate. Clear regulations are needed to control leachates, groundwater pollution and disease vectors, as well as to control and regulate landfill gases. Many municipalities in the country continue to dispose of their wastes in open and uncontrolled dumpsites or directly into water bodies. Systems for separation and management of hazardous wastes and special wastes including medical wastes are non-existent or inadequate where they do exist. These practices present significant health risks to the public.

While the aggregate costs of degradation and health risks arising from inadequate solid and hazardous waste management are not as high as those associated with waterborne diseases and air pollution, they do present significant localized costs. An estimated two-thirds of solid waste is disposed of in landfills, mostly in densely populated urban areas; however, more than half of the country's 575 municipalities—typically representing the lower income areas—do not have appropriate disposal facilities. Table 2 illustrates the disposal practices for solid waste among municipalities. Twenty-eight percent of waste generated by the 575 municipalities is disposed of in open dumpsites, with or without burning. There are 338 municipalities that dispose of waste through burning and 20 that dump wastes directly into streams and rivers, at a collective rate of 26 tons per day. Even in locations where landfills are in use, disposal is largely unregulated and standards for landfill development and operation do not exist. In cities such as Bogotá, Medellín, and Cali, inadequate management of leachate discharges containing high concentrations of toxic and other hazardous substances is common[71].

---

[70] This resolution supports the government's decision in 2003 to close all open air dumpsites by October 3, 2005.

[71] Leachate is the liquid produced when water percolates through any permeable material. It can contain either dissolved or suspended material, or usually both. It is most commonly encountered in connection with landfills, where it is produced as

Table 2. Final Disposal of Waste

Type of disposal	No. of municipalities	Waste disposed (tons / day)	Municipalities (percent)	Wastes disposed (percent)
Landfills	358	14,799	33	65
Dump sites with burning	338	1,946	31	9
Dump sites without burning	237	4,315	22	19
Interment	45	1,072	4	5
Water stream	20	66	2	0
Incineration	3	26	0	0
Others	56	185	5	1
Information not available	31	425	3	2
National total	1,088	22,835	100	100
Source: Salamanca (2004).				

Additionally, improper disposal of artificial containers poses significant health risks. These containers often serve as production sites for the Aedes aegypti mosquito, a transmitter of both the dengue and yellow fever viruses. The Pan American Health Organization conducted a campaign that eradicated Ae. aegypti from most South American countries in the 1950s and 1960s. However, a new strain of dengue hemorrhagic fever (DHF; the severe form of the disease) appeared in Latin America in the early 1980s and spread rapidly throughout the region, causing outbreaks in Venezuela, Colombia, and Brazil. By 2003, 24 countries had reported confirmed DHF cases (Figure 10), and DHF is now endemic in many of these countries. According to statistics from the Ministry of Social Protection (MPS), the annual rate of dengue cases from 1982 to 2003 reflects an increasing trend in Colombia. A more striking upward trend has been seen in the annual rate of DHF, as well as the DHF fatality rate; in 1998, 5,276 cases of DHF were reported, in contrast to 39 cases in 1990. From 1991 to 2002, a similar trend in yellow fever cases was observed. This increased activity was followed by a yellow fever outbreak in the department of Norte de Santander in 2003. A total of 495 suspected cases were reported, of which 82 were confirmed by laboratory testing at the National Institute of Health (INS). In 2004, more than 100 laboratory cases of yellow fever were detected in 14 departments, and there is concern about the possible transmission of yellow fever in urban areas.

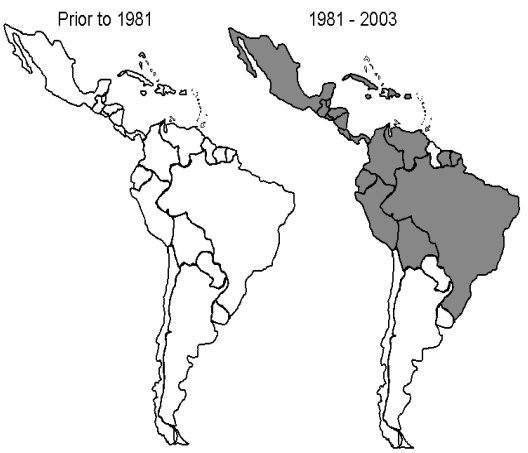
With respect to hazardous waste management, Bogotá currently does not have the capacity to safely dispose of the hazardous wastes that it generates. As a consequence, more than half of the hazardous wastes generated are inadequately disposed of in open landfills and dumps. In Cali, only one percent of the total amount of medical wastes and hazardous wastes generated is sterilized and buried in the open dump of Navarro. Other municipalities deactivate and burn these wastes and dispose of their ashes in dumpsites or landfills. A recent document developed by the Regional Autonomous Corporation of the

a result of rain percolating through the waste and reacting with chemicals and other materials. If the landfill has no leachate collection system, the leachate can enter groundwater and create environmental or health problems.

Sinu and San Jorge Valleys (CVS) identified the following concerns associated with the management of medical wastes: (i) air pollution caused by open burning of medical waste; (ii) technically inadequate incineration; (iii) uncertainty about the reliability of the microbiological sterilization procedure; (iv) untreated medical waste; (v) lack of knowledge regarding types of waste produced by clinical laboratories; (vi) lack of knowledge regarding environmental and sanitary risks; (vii) absence of emergency planning; (viii) contamination caused by mixing hazardous and non-hazardous wastes and disposal of medical wastes by burial on hospital premises; and (ix) inappropriate disposal sites and systems[72].

Related to hazardous waste management, persistent organic pollutants (POPs), used as pesticides and in industrial production, or generated as a by-product of various industrial processes, contaminate both soils and the atmosphere. The heavy use of pesticides for cotton and rice production, especially along the northern Caribbean coast, has left soils contaminated as well as stockpiles of obsolete pesticides. The pesticides that have been detected include DDT, DDE, endosulfan, hexachlorobenzene, toxaphene, methyl parathion, and ethyl parathion. Cases of acute toxicity have been reported with respect to some organochlorates, organophosfates, and carbonates. The poor, in particular, are exposed to persistent contaminants; lacking the resources to move to a less contaminated environment, many live in areas that were former pesticide depots, airplane fumigation fields, or underground pesticide disposal sites. The pollutants generated in these areas are highly toxic, causing a variety of adverse health effects (death, disease, immune disorders and birth defects).

Figure 10. Latin American Countries with Laboratory—Confirmed Hemorrhagic Fever, prior to 1981 and from 1981 to 2003



Source: WHO/PAHO/CDC, Aug. 2004

[72] CVS (2004).

Policy options

A number of cost-effective options are available to combat the environmental problems that impose the highest economic and social costs in Colombia (waterborne diseases and ambient and indoor air pollution), as well as the more localized problems of solid and hazardous waste management. Many of these actions, highlighted in bold below, are consistent with the country's goals for 2019.

Recommended actions		
Objective	**Short-term**	**Medium- and long-term**
Reduce mortality and morbidity resulting from waterborne diseases	•Design and implement a safe water program that includes components on handwashing and point-of-use disinfection of drinking water (Cost: Minimal) •Better articulate role of environmental authorities in enforcement of drinking water quality regulations (Cost: Low to Modest)	•Develop and implement actions to promote compliance with drinking water quality standards (Cost: Low) •Modify laws and regulations on effluent standard parameters so that pathogens, toxins, and other hazardous substances are regulated (Cost: Modest)
Reduce environmental health risks associated with ambient air pollution	•Establish national ambient standards for PM2.5 in priority urban areas (Cost: Modest to High) •Implement monitorable and targeted action plan to attain ambient standards for PM10 in line with WHO air quality guidelines (Cost: Modest to High) •Implement an air quality monitoring program to monitor PM2.5, PM10, and ozone in priority urban areas (Cost: Modest) •Implement air pollution control interventions, including: (i) reduction of sulfur content in diesel to less than 500 ppm, including increasing clean imports of diesel with low-sulfur content; (ii) expansion of efforts to encourage use of CNG in vehicles; (iii) improvement of fuel quality used by power plants and heavy industry, including expanding the use of natural gas to replace coal and oil; and (iv) emissions control from stationary, mobile, and non-point sources (Cost: Modest to High) •Adopt integrated land-use and sustainable transport policies, to promote sound mobility systems and reduce the average fuel consumption per trip (Cost: Low to Modest). Better articulate role of environmental authorities in enforcement of air quality regulations (Cost: Low to Modest)	•Re-examine methods for testing vehicle exhaust in light of international experience, and introduce more rigorous approaches to vehicle emissions testing (Cost: Modest) •Establish plans to upgrade urban bus fleets and other forms of transit in major cities, and to create incentives aimed at scrapping older vehicles (Cost: Modest to High)

Recommended actions		
Objective	**Short-term**	**Medium- and long-term**
Reduce environmental health risks associated with indoor air pollution	•Promote the use of LPG and other cleaner fuels in areas that predominantly use fuelwood, and increase users' access to cleaner fuels (Cost: Modest) •Implement a program to promote improved stoves (Cost: Modest)	In subsidy programs for rural low-income housing, include requirements for building codes and housing design, including chimney design, to allow for improved ventilation (Cost: Modest)
Improve solid and hazardous waste management	•Establish legally binding standards for landfills in urban areas (Cost: Low) •Close municipal open dumpsites (Cost: Modest) •Better articulate role of environmental authorities in enforcement of waste management regulations (Cost: Modest) •Develop criteria and standards for waste management solutions appropriate for small and remote municipalities, including incentives for waste disposal in regional landfills (Cost: Low) •Conduct workshops and school programs to encourage community participation in the control and/or elimination of artificial containers, which can serve as production sites for Aedes aegypti (Cost: Low) •Conduct evaluation of final disposal of medical wastes with the goal of simplifying regulations for medical waste disposal and improving monitoring and enforcement (Cost: Modest) •Establish a systematic registry and inventory of sites contaminated by POPs (Cost: Low) •Disseminate information on how to avoid exposure to contaminated areas (Cost: Low)	•Enforce territorial management plans (POTs) so that decisions on siting of landfills are consistent with zoning requirements contained in POTs (Cost: Modest) •Establish mechanisms for proper disposal and safe handling of hazardous chemicals (Cost: Modest to High) •Implement recently-approved national policy for the integrated management of hazardous wastes (Cost: Modest to High) •Implement regional sanitary landfill program for final disposal of solid wastes (Cost: High) •Promote public-private partnerships to recover urban and semi-urban areas degraded by POPs (Cost: Low)

References

Curtis, V. 2002. "Talking Dirty: How to Save a Million Lives without Mentioning Health." Presentation at The 2nd IFH Conference, Home, Hygiene, and the Prevention of Infectious Disease in Developing Countries: A Responsibility for All, April 15 – 16, 2002. India Habitat Centre. New Delhi, India.

Curtis V. and S. Cairncross. 2003. "Effect of Washing Hands with Soap on Diarrhoea Risk in the Community: A Systematic Review and Meta-Analysis."The Lancet Infectious Diseases 3: 275-281.

Fewtrell L. and J.M. Colford, Jr. 2004. "Water, Sanitation and Hygiene: Interventions and Diarrhoea – A Systematic Review and Meta-analysis." Washington, D.C.: World Bank. Available at <www1.worldbank.org/hnp/Pubs_Discussion/Fewtrell&ColfordJuly2004.pdf>

Larsen, B. 2004. "Colombia Cost of Environmental Damage: A Socio-Economic and Environmental Health Risk Assessment. Consultant report prepared for the Ministry of Environment, Housing, and Territorial Development.

National Planning Department. 2002. "National Development Plan 2002 – 2006: Towards A Community State." Bogotá, Colombia.

National Planning Department. 2005. "Vision for the Second Centennial: 2019" (Visión Colombia II Centenario: 2019). Bogotá, Colombia.

Profamilia, Colombian Institute of Family Welfare, United States Agency for International Development, Ministry of Social Protection, United Nations Population Fund. 2005. "Colombia Demographic and Health Survey." Available at (http://www.profamilia.org.co/encuestas/01encuestas/2000resultados_generales.htm)

Profamilia, Colombian Institute of Family Welfare, United States Agency for International Development, Ministry of Public Health, Corona Foundation, Presidential Advisory Council on Women's Equality, United Nations Children's Fund, International Planned Parenthood Federation . 2000. "Colombia Demographic and Health Survey." Available at (http://www.profamilia.org.co/encuestas/01encuestas/2000resultados_generales.htm)

Regional Autonomous Corporation of the Sinu and San Jorge Valleys (CVS). 2004. "Environmental Diagnostic of the River Sinu Watershed Basin. Version 1, Inventory of Domestic and Industrial Activities." Monteria, Cordoba.

Salamanca, J. 2004. "Study on Regulations for the Final Disposal of Solid Waste." Consultant report prepared for the Ministry of Environment, housing, and Territorial Development.

Scott, B., N. Gabrah-Aidoo, and V. Curtis. 2005. Presentation on "Can We Change Behaviour? Early Results from the Ghana National Handwash Campaign." Hygiene Centre, London School of Hygiene and Tropical Medicine. London.

World Bank. 2006. Republic of Colombia: Mitigating Environmental Degradation to Foster Growth and Reduce Inequality. Washington, D.C.

World Health Organization. 2005. "WHO Air Quality Guidelines Global Update 2005. Report on a Working Group Meeting, Bonn, Germany, 18-20 October 2005." Available at <http://www.euro.who.int/Document/E87950.pdf>

The Conservation of Global Environmental Assets[73]

Abstract: Colombia has taken important steps in the management of global environmental assets. To better manage climate change and prevent ozone depletion, it ratified the Montreal Protocol in 1989, adopted the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, signed the Kyoto Protocol in 1997, and prepared its First National Communication to the UNFCCC in 2002. To conserve biodiversity, Colombia has established a National Protected Areas System that includes publicly and privately owned lands representing 34 percent of Colombia's national territory (the second highest percentage in the Latin American region). Despite these advances, however, changes in temperature, sea level, and precipitation patterns caused by global warming continue to impact the country's natural and human resources, particularly its water quality and water storage capacity, agricultural patterns, and natural resources. These changes are also increasing the risk of natural disasters and the incidence of vector-borne diseases. In addition, ecosystem and biodiversity degradation is affecting the provision of fundamental environmental services, mainly water supply, water purification, waste treatment, and protection against natural hazards. Biodiversity loss is also impacting the livelihoods and cultural values of ethnic populations. It is therefore imperative that every Colombian actively participate in conserving global environmental goods, as their loss affects the well-being of the entire population and the environmental capital left for future generations.

[73] This chapter was written by Juan Pablo Bonilla.

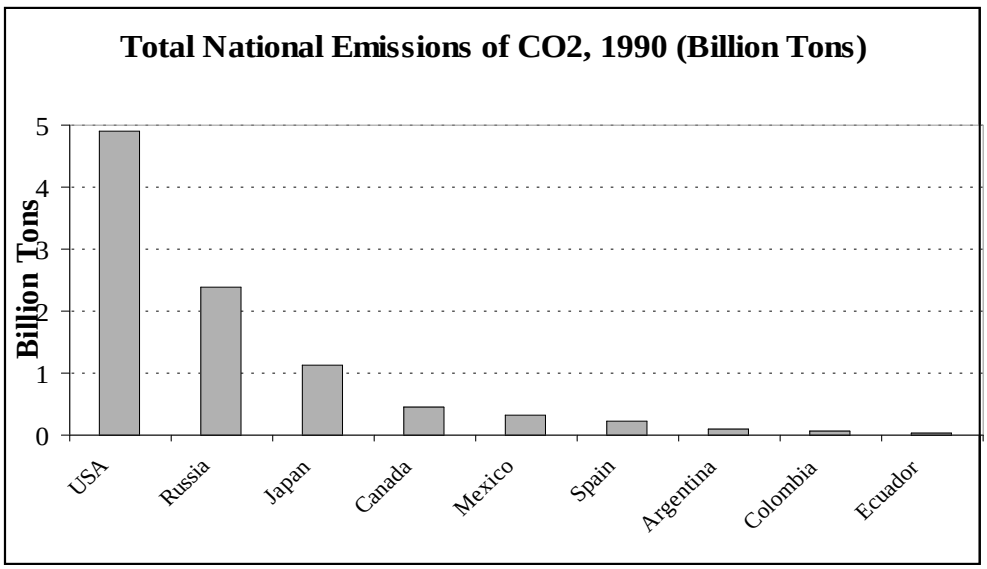
Introduction

Global environmental issues affect not only Colombia's environmental resources, but the well-being of individual Colombians in direct and tangible ways. The foremost threat is from climate change caused by global warming, which is expected to shift agricultural zones, modify both marine and terrestrial ecosystems, threaten biodiversity, flood low-lying coastal areas, lead to saline intrusion into freshwater sources, and change precipitation and hydrological patterns, causing a range of potentially disastrous secondary impacts. Another important concern is the widespread loss of biological diversity, which can undermine the productive capacity of terrestrial and aquatic ecosystems, reduce access by the poor to essential environmental goods and services, affect cultural resources, and cause economic losses in important sectors, including tourism. Like other developing countries, Colombia faces significant constraints in adapting to such changes, with poor and marginalized populations being even more vulnerable.

Climate change. Colombia contributes less than 0.3 percent of total global greenhouse gas (GHG) emissions; its CO_2 emissions in 1990 were equivalent to 1 percent of U.S. emissions and 5 percent of Japan's, and were significantly less than other Latin American countries such as Mexico and Argentina (Figure 1). Moreover, Colombia's emissions per capita and per unit of economic output are only about 50 percent of the average for Latin America and the Caribbean. They are similarly low compared to the average for lower-middle-income countries, and are only a fraction of those in industrialized countries. Although Colombia is only a minor contributor to the *causes* of global climate change, it is highly vulnerable to the *impacts* of climate change. Areas of primary concern include high mountain ecosystems, insular and coastal communities, hydrological patterns and water quality, natural disasters, biodiversity, energy generation, and the transmission of vector-borne diseases and other

health issues. In addition, 17 percent of the country's soils, located in the more productive areas, suffer from desertification and another 35percent were reported as affected by erosion from different causes in 2001[74], a situation that could worsen under climate change effects. Colombia's strategy toward climate change is therefore one in which adaptation and mitigation (e.g., through carbon sequestration) can play a critical role[75].

Figure 1. Total CO_2 Emissions in Colombia versus Other Countries (Billion Tons)



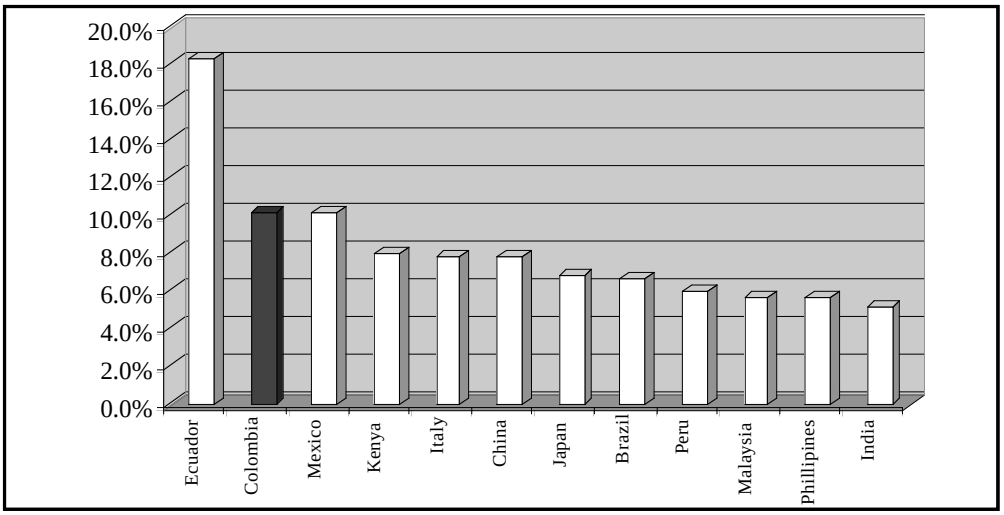
Source: Colombia's First National Communication to the UNFCCC (2001)

Biodiversity conservation. Colombia is among the world's five most biodiverse countries; with only 0.8 percent of the world's land area, it hosts 15 percent of all known terrestrial species. Colombia's significant natural endowment is conserved within the National Protected Areas System (NPAS), which includes publicly and privately owned territories throughout the country. One component of the NPAS is the National Natural Park System (NNPS), comprising 51 national parks covering close to 11 million hectares or approximately 10 percent of national territory, which is slightly below the average for other countries of the Region. Compared with other mega-diverse Latin American countries, the percentage of land that is protected is larger than that of Brazil and Peru, similar to Mexico, but smaller than Ecuador (Figure 2). The NNPS constitutes the country's principal *in situ* biodiversity conservation strategy, encompassing 50 of Colombia's 108 bio-geographical districts[76]. It also includes 12 percent of Latin America's humid and dry wilderness refuges and two of the most bio-diverse regions in the world: the bio-geographic Chocó and the Amazon Forest[77]. In addition, the NPAS includes three Ramsar Convention wetlands (the Laguna de la Cocha, the Ciénaga Grande de Santa Marta and the Delta Estuario del Rio Magdalena), and five World Biosphere Reserves: the Sierra Nevada de Santa Marta, the

[74] IDEAM, 2000b.
[75] World Bank (2005)
[76] World Bank (2006).
[77] World Bank (2006).

Ciénaga Grande de Santa Marta, the San Andrés and Providencia Archipelago, the Tuparro National Park, and the Colombian Massif.

Figure 2. National Protected Areas (percentage of land)



World Bank, 2006

Table 1. The National Protected Areas System

Protection Categories	Estimated Hectares
National Natural Parks System (NNPS), with 51 areas under five management categories	11,345,224
234 Civil Society Natural Reserves (RNSC), with approximately 324 properties, with 111 registered in the National Protected Areas System, and 183 belonging to the National Reserves Network	51,837[78]
247 Territorial Protected Areas, with 46 management categories; includes 79 municipal areas, 108 regional areas managed by a Regional Autonomous Corporation, and 17 departmental areas	243,825
Regional Protected Areas (without forest reserves)	3,439,452
National Forest Reserves (Law 2 of 1959)	1,371,940
Indigenous Territories totaling 28.6 million hectares, with protected areas to be defined	
Ethnic Afro-Colombian Community Territories totaling 4.6 million hectares, with protected areas to be defined	

Sources: National Parks Unit (2004), World Bank (2006),

Ozone depletion. Colombia contributes less than 15 percent of the ozone-depleting substances (ODS) in Latin America and the Caribbean, which corresponds to 3 percent of global consumption. Although Colombia is a minor contributor to the *causes* of ozone depletion, it has made significant advancements in eliminating ODS, becoming one of the

[78] Asociación Red Colombiana de Reservas Naturales e la Sociedad Civil, 2006

leading countries in the region. Colombia is committed to a gradual elimination of ODS with respect to the baseline: 50 percent elimination of imported substances by 2005, 85 percent by 2007, and 100 percent to 2010. To fulfill this voluntary commitments the Technical Ozone Unit (TOU) at the Ministry of Environment, Housing and Territorial Development (MAVDT) has designed a National Elimination Plan (NEL) based on the following components: (i) Chlorofluorocarbons (CFC) substitution in remaining companies of the commercial refrigeration sectors; (ii) proposals to decrease CFC use in the maintenance sector; and (iii) elimination of imports of halones.

Why do global environment assets matter?

In addition to their intrinsic conservation value (genetic pools, aesthetics, educational potential, etc.), global environmental assets are also directly related to economic growth, competitiveness, and sustainable livelihoods. The conservation of biodiversity, as well as local mitigation efforts to reduce greenhouse gases (GHG) and adapt to climate change impacts, are an agenda that should be embraced by all. Why?

- *because global environmental assets affect water storage capacity and power generation.* The unique moorlands and *páramos* in Colombia's Andean highlands have soil with a high storage capacity for water and carbon, but are also highly sensitive to increases in temperature. In some of these moorlands, IDEAM has recorded a net increase of 0.2 - 0.3 °C per decade and a decrease in monthly rainfall of 2 to 3 mm per decade between 1961 and 1990[79]. Recent projections conducted with the assistance of the Meteorological Research Institute (Japan) suggest that these trends will continue to worsen, with temperature increases of as much as 2.5 °C by the end of the century. Hydrological and temperature changes in the mountains would result in a loss of global biodiversity and also in a loss of environmental goods and services provided by these ecosystems, especially water supply, basin regulation, and associated hydropower potential. Two-thirds of Colombia's electricity is generated from hydropower, and many of the rivers used to generate that hydroelectricity are fed by high altitude lagoons, snow caps, and *páramos*[80].

- *because they impact the quality of water resources.* Global warming due to increased atmospheric CO_2 concentrations will lead to a rise in sea level and surface water temperature in the western Caribbean. Sea level increases are expected to cause saline intrusion into coastal and insular freshwater aquifers. Coastal freshwater ecosystems and their biological diversity will also be severely affected. In addition, reefs and atolls in the western Caribbean that contain endemic species of global biodiversity importance are being impacted by increases in sea surface temperature. These temperature increases have been linked to the bleaching of corals and a poleward shift of local fisheries. These impacts have already caused severe bleaching of 70 to 90 percent of coral located at a depth of 12 meters or less

[79] IDEAM (2002).
[80] World Bank (2005)

in Colombia's territorial sea, which hosts 65 percent of the fish species of the western Caribbean.

- *because their degradation increases the vulnerability to natural disasters.* Colombia is extremely vulnerable to natural disasters given its mountainous topography coupled with high rainfall that create flood and landslide risks that are greatly exacerbated by deforestation and unsustainable land management practices. The country's vulnerability to natural disasters has been heightened by the El Niño southern oscillation, which causes alternating periods of severe drought and heavy rainfall due to variations in sea surface temperatures. Variations in climate exacerbate all this. The damage to property and loss of life caused by natural disasters is costly in Colombia. From 1970 through 1999, the country experienced on average 2.97 major natural disasters per year, the third-highest annual rate among the 19 countries of Central and South America. In addition, an estimated 30,000 deaths were caused by these natural disasters, the third-largest number for the two regions. These events resulted in losses of more than $4,500 million, or 11.5 percent of the country's 1995 GDP. The high frequency of natural disasters, the toll these events have taken on human lives, and the additional constraints that the economic losses impose on the country's budgetary resources underscore the need to develop more robust institutional responses.

- *because of potential displacement of coastal populations.* Prognostic modeling has identified major population displacement as one of the main threats of climate change. Models for Colombia have predicted a rise in sea level of 40 cm or more in the San Andres Archipelago by 2060. The first national communication (NC1) to the UNFCCC estimates that 17 percent of the land area of San Andres Island could disappear as the result of a 50 cm increase in sea level, projected by 2060. If no preventative action is taken, small islands with dense populations and a little interior land on which to relocate coastal communities will suffer socially destabilizing impacts.

- *because of impacts on health, through increased outbreaks of vector-borne diseases such as dengue and malaria.* An increase in mean temperatures and humidity is likely to affect the dynamics of the vector (mosquito) population and disease transmission. The two vector-borne diseases with the greatest global impact on human health, dengue and malaria, have recently reemerged as a significant public health burden in Colombia. The incidence of malaria increased from less than 15 cases per 10,000 inhabitants in 1964 to 58 cases per 10,000 inhabitants in 1983 and to almost 156 cases in 1998. A more striking upward trend has been reported in the rate of dengue hemorrhagic fever (DHF), the severe form of the disease. Since nation-wide surveillance began in the early 1990s, 5,276 cases of DHF were reported in 1998, as compared to 39 cases in 1990. Total cases of dengue, including both DHF and the less severe form, were 81,831 in 2002.

- Close to half of Colombia's population, more than 20 million people, live in areas where mean temperatures are between 15 and 26°C and transmission of these vector-borne diseases is prevalent. A mean temperature increase of 2°C in these areas is likely to increase the transmission rate of both diseases. Moreover, climate change has the potential to increase outbreaks of these diseases even in

temperate climates that currently have no reported cases of either disease. As such, populations living in colder, mountainous regions of the country are likely to be more susceptible to contracting dengue and malaria.

- *because of the potential contribution of GHG mitigation efforts to key sectors like transport, solid waste management, and land use change and forestry* . The transport sector is the main emitter of GHG in Colombia. According to the national inventory of GHGs, it accounts for near 40 percent of the CO_2 emissions from the energy sector[81]. Some city planning interventions, particularly massive transportation systems in the main urban areas, as well as other policy instruments, could be complemented by mitigation options under the Clean Development Mechanism and the Global Environmental Facility (GEF).

- Colombia has a very serious problem with inadequate disposal and treatment of solid waste (see Policy Note on Environmental Health). Mitigation efforts through methane capture represent an important opportunity to develop and implement programmatic clean development mechanism projects, which can be articulated within other lending operations.

- Mitigation options also offer great potential for the land use change and forestry sector, which accounted for 9.3 percent of total emissions in 1990, almost entirely in the form of CO_2. In addition, benefits to local communities and to biodiversity represent important potential benefits.

- *because of their impact on poverty in rural areas.* Desertification and climate change are known to create a vicious circle with poverty for the populations of rural areas, which are highly dependant on the quality of the soil and the availability of water. The loss of soil productivity and the recurrence of draught endanger the inhabitants of the dry land ecosystems and force them to abuse the soil exploitation, thus aggravating the problem and eventually forcing them to move to other areas to produce food. The Andean and Caribbean regions are the most affected by water scarcity and draught vulnerability[82]. Additionally, natural disasters caused, among other factors, by environmental deterioration, affect mainly the poor.

- *because of the essential cultural value of these assets to several ethnic groups, and their dependence on these assets for their livelihoods.* Territories collectively owned by Afro-Colombian and indigenous communities include extensive areas with significant conservation and environmental management potential, such as the Sierra Nevada de Santa Marta, the Amazon, the Colombian Massif, and the Chocó. The ancestral natural resource practices of these communities are often compatible with conservation objectives. Collectively owned Afro-Colombian territories encompass nearly 3 million hectares (2.5 percent of the country's area),

[81] IDEAM (2000).
[82] IDEAM, 2004, Chapter 3.

primarily in the Chocó area of the Colombian Pacific Bioregion. Indigenous territories (462 indigenous reservations) comprise 28.6 million hectares (26 percent of national territory). Twenty-four percent of the total area of indigenous reserves overlaps with Colombia's National Natural Parks System[83], and traditional indigenous, Afro-Colombian, or campesino communities inhabit 47 of Colombia's 51 national parks (indigenous communities alone inhabit 33 of the parks).

- Most national parks in Colombia have been selected solely on the basis of ecological considerations, prompted by recommendations of the technical and scientific staff of the different institutions responsible for parks administration over the years. Factors such as cultural diversity, traditional productive processes, economic expectations, and property rights of their inhabitants have not been taken into account. Thus, stakeholders at the local, regional, and national levels have not had a forum to express their views on the creation of protected areas. Conservation policies and legislation, still in effect today, have limited these communities' use of traditional production systems and natural resources and made many traditional economic activities illegal. In addition, there has been lack of incentives, mainly alternative production activities to avoid the presence of communities in national parks.

Improved management of global assets: what has been done and what is left to do?

Focusing on adaptation to climate change. Although Colombian ecosystems are being impacted by an increase in temperatures and a rise in sea level, the country's potential contribution to reducing climate change is minimal, given the country's relatively low emissions of greenhouse gases. Colombia's greenhouse gas emissions in 2000 accounted for 4.3 percent of total emissions in Latin American and the Caribbean and less than 0.3 percent of total global emissions. Given the impacts of climate change on the country, however, and the irreversible nature of many of these impacts, the country needs to focus on adaptation measures as a first priority in addressing climate change.

Important challenges to prepare and adapt the country to the impacts of climate variability include: (i) establishing an information clearinghouse to provide and house the information required for designing an adaptation strategy; (ii) disseminating information on climate trends and creating awareness of local implications; (iii) building additional capacity at the national level to assure most effective management responses, and (iv) establishing pilot projects to show how adaptation planning and assessment can be practically translated into national policy and sustainable development planning.

Strengthening climate change mitigation efforts. Despite the country being a relatively low emitter of GHG at the global level, the Government has provided support to mitigation efforts. In December 1997, the previous Administration signed the Kyoto Protocol, which provides incentives for international cooperation to promote cost-effective GHG abatement.

[83] Unidad de Parques Nacionales (2004), World Bank (2006)

In addition, the Government consolidated the national Office for Mitigation of Greenhouse Gases, passed a resolution recognizing criteria and procedures for Clean Development Mechanism (CDM) certification, and incorporated CDM activities in its National Development Plan for 2002-06. Under this plan, Colombia has initiated a number of activities to reduce and capture GHGs in key sectors such as energy, transport, waste management, and forestry. To date, three purchase agreements for certified emissions reductions have been finalized, totaling US$ 27 million, and 14 more agreements are in the pipeline.

Despite these achievements, Colombia still has room for important contributions to both GHG emission reduction and carbon sequestration, which, in many cases, will also bring important local benefits. Such is the case for urban transport, solid waste management and disposal, and land use change and forestry. Working towards more efficient transport systems, integrated to sound land-use and environmental policies, will allow important fuel savings per trip. The recently signed joint agenda between the Ministry of Transport and the Ministry of Environment, Housing and Territorial Development included potential mitigation options for massive transport systems in the country.

Another important case for mitigation exists in the reduction of methane emissions from landfills, which, if accompanied by sound waste management mechanisms, may also produce important environmental benefits at the local level. Presidential Decree 838[84] which promotes the planning, construction and operation of regional landfills, as well as the innovative regulatory frameworks for solid waste management recently approved (December 2005) have created the need for a national strategy to close open dumps and develop an agenda for regional solid waste disposal sites. Colombia also possesses an important potential for carbon sequestration, provided its rich endowment of soils, heights, and ecosystem support. Carbon sequestration can be combined with sound social, environmental, and development policies to achieve important local gains while contributing to the sustainability of global assets.

Policies and regulations on biodiversity conservation. Colombia has a well-developed legal framework for biodiversity conservation. The National Policy for Biodiversity (1996) focuses on conservation, knowledge, and sustainable use of biodiverse resources. In 1997, the Government adopted the Policy for the Creation and Consolidation of a Protected Areas System, and the present Administration's National Development Plan (2003-2006) addresses the need to consolidate this system nationwide. The consolidation of the National Protected Areas System (NPAS) is considered a priority environmental policy in the country.

The total area under conservation and protection has been increasing due to the decentralization efforts of the Government, which aim to increase the number of effective management categories and conservation strategies. Law 99 of 1993 assigns the Regional Environmental Authorities (CARs) responsibility for establishing regional protected areas and creating management categories for reserves. More than 200 natural areas are protected

[84] This Decree was a conditionality for the Development Policy Lending DPL I operation.

under municipal, departmental, and regional conservation categories, which include private reserves, forest protection reserves, and forest protection-production reserves.

The national park system was created in 1959 and associated regulations for the creation and administration of national parks were approved in the 1970s. However, these regulations did not provide mechanisms for public participation and for balancing conservation interests with economic and development priorities. Without such mechanisms, local stakeholder participation in conservation strategies was hindered. Prior to 2003, 47 national parks were created and their boundaries set in areas overlapping with traditional indigenous and Afro-Colombian communities, sometimes without their knowledge. In fact, Colombian law does not include provisions to secure the participation of these communities during the creation and administration of these parks. In cases such as the Catatumbo National Park, created in 1989, the communities only recently learned that their territory overlapped with a designated national park. Further, the restrictions imposed by national parks on traditional uses of natural resources have impacted the economies of these communities. A strict interpretation of the prevailing legislation would make any use of natural resources by these communities, even for subsistence purposes, illegal.

To harmonize national parks regulations with the 1991 Constitution, the *Universidad de Los Andes*[85] (2004) has suggested adjusting Law 02 of 1959, the Code of Natural Resources of 1974, and Decree 622 of 1977. This would help strengthen the participation of relevant stakeholders at the local, national, and regional levels. In addition, the National Environmental Council approved a policy for Social Participation in Conservation in 1999, which has generated greater involvement by local stakeholders. Subsequently, during the present Administration, outreach activities have been undertaken with 10,000 beneficiary families living in national park buffer zones, improving effective biodiversity conservation in 73,000 hectares located mainly in the Northern Andean region and the Amazon Basin[86] Participatory agreements have also been negotiated with Afro-Colombian communities in the Chocó Region and with indigenous organizations in the Colombian Massif. Two co-governance agreements have been signed between the National Parks Unit (UAESPNN) and indigenous communities (Cahuinarí and Alto Fragua Indiwasi National Parks). These agreements include the development of coordination mechanisms for the conservation and sustainable economic use of protected areas, and have fostered the support and involvement of local communities in the implementation of conservation strategies.

Although this policy has begun to show positive results, it does not have yet legal status and is consequently not enforceable or legally binding. The legal recognition of these community participation principles in the conservation regulatory framework is therefore one of the challenges ahead. Other aspects that should be considered include: (i) the equitable participation of all relevant actors; (ii) the development of institutional mechanisms to prevent and resolve conflicts, particularly between conservation interests and regional, social, and economic development; (iii) the definition of criteria for the selection and delineation of national parks, as well as the conditions that justify their

[85] *Universidad de Los Andes* (2004), World Bank, (2006)
[86] Alexander Von Humbolt Research Institute (1998)

creation, the consultation processes required and the coordination mechanisms required for their administration; (iv) the development of ecologically sustainable production processes by local communities inhabiting national parks; and (v) the protection of property rights in protected areas.

Public expenditures and financing of conservation efforts. The National Park System receives a limited government budget contribution relative to its extensive territory and diverse functions. Between 1996 and 2001, government allocations to the NNPS declined by 55 percent in real terms, forcing the National Parks Unit to develop alternate funding sources. The Unit's projected 2005 and 2006 deficits compared to regular budget allocations are US$4.6 and US$3.7 million, respectively.

The present Administration, acknowledging the need for a long-term financial strategy, has signed a debt-for-Nature-Swap for US$10 million with the United States under the Tropical Forest Conservation Act (TFCA), including a 20 percent participation of three international NGOs (World Wildlife Fund, The Nature Conservancy and Conservation International). In addition, the Administration has made progress in negotiations regarding bilateral grants and the creation of a National Protected Area Conservation Trust Fund. The success of these financial sources will depend, to a great extent, on the capitalization, consolidation, and effective management of these mechanisms.

Promoting green markets. Providing incentives for biodiversity conservation by ensuring that local people benefit from biodiversity (products derived from single species or eco-tourism) is fundamental to the national strategy of conservation in Colombia. As a result, the National Plan for Green Markets (NPGM) was included in the National Development Plan 2002-2006, and in the Natural Resource Management Strategy of MAVDT. The Plan has also gained significant strength in other ministry agendas, resulting in the creation of a number of inter-institutional committees and as well as consolidating programs such as bio-commerce at the Von Humbolt Institute.

Green products focus on specialized goods and service markets that seek to (i) promote the sustainable use and conservation of natural resources; (ii) maximize the comparative advantages that Colombia has in environmental goods and services; and (iii) support an increasingly equitable and fair distribution of the generated economic benefits for the producer groups involved.

During the past three years, 105 small producer associations, 4,316 individuals, and 21 states have benefited from the support of the Green Markets Group within the MAVDT. Tools such as agreements with large distributors, business expositions for ecological products, the Green Market Plaza in Bogotá, and the design of agro-ecological certification (unique in the LAC region) have been of great use to the consolidation of NPGM. BIOEXPO 2005, for instance, was able to attract the interest of principal national supermarket and commercial chains, as well as 16 financial entities, including banks, foundations, and ministerial programs.

Harmonizing human activities with conservation. Despite the large percentage of land under conservation in the country, protected areas are facing continued degradation that results from large-scale population displacement and colonization, illicit crop production, a lack of economic alternatives for inhabitants of the parks' buffer zones, and a weak

institutional presence. Poverty and a lack of economic alternatives generate pressures on protected areas, with suboptimal resource use resulting in soil degradation, ecosystem fragmentation, and social and economic conflict over resource privileges. In addition, illicit crop production has led to: (i) forest clearing to cultivate illicit crops; (ii) population displacement to vulnerable ecosystems; (iii) investment of the economic surplus generated by illicit crop production in unsustainable cattle ranching; and (iv) water contamination as a result of chemicals used during illicit crop planting and processing.

Another unsustainable activity is extensive cattle ranching, which occupies 42 million hectares. The cattle production sector contributes close to 3.5 percent of Colombia's GDP and 26 percent of its agricultural sector production, while generating close to one million jobs. Most cattle producers are small landowners, with 82 percent of cattle farms producing fewer than 50 heads. The sector's lack of technology and extensive clearing methods result in high environmental impact, leading to the extensive use of and water resources and their contamination, loss of biodiversity, loss of forest cover, and land degradation.

The recently signed Free Trade Agreement between Colombia and the United States poses a significant threat to extensive and low-productivity cattle ranching, while creating new opportunities in niche markets of organically certified products. The mainstreaming of silvopastoral systems with specialized access to credit for low-income producers, technical assistance for rapid replication, and grants for non-profitable land use changes would support an increase in the sector's productivity and reduce its environmental impact. Silvopastoral systems and the implementation of biodiversity-friendly land use changes (i.e., live fences, the introduction of trees in pastures, and freeing up lands for natural regeneration) will yield improvements in land quality, carbon sequestration, biodiversity conservation, and improved and water quality, while supporting local income generation.

Prevention of natural disasters. Climate variability and desertification are exacerbating the country's exposure to floods, erosion, landslides, and drought. Therefore, conservation of priority ecosystems like moorlands and highlands, as well as restoration of wetlands and eroded land rehabilitation represents an important adaptation measure to decrease vulnerability to natural disasters. In addition, considering that the MAVDT has the responsibility for monitoring municipalities for disaster risk and risk reduction (Decree 0643 of 2004), and that Regional Environmental Authorities (CARs) have the responsibility of approving the Zoning Plans (POTs) of municipalities, the challenge of including prevention to natural disasters as part of the planning process of the Ministry is fundamental. The Ministry has included prevention to natural disasters as one of the key 15 indicators of the system for performance evaluation of the Regional Environmental Authorities (Decree 1200 of 2004).

The Government of Colombia is already working on a ten-year National Disaster Vulnerability Reduction Program that aims to reduce the fiscal vulnerability of the state to adverse natural events by strengthening national capacity to manage disaster risk, and by reducing vulnerability in key municipalities that combine high exposure to disaster risk and high contributions to national income and productivity. Conservation and restoration activities of key ecosystems, as well as planning activities from the CARs, should be articulated to these efforts.

Development of key indicators for conservation and adaptation. Presidential Decree 1200 of 2004 represents a significant step forward in improving performance of the CARs as well as achievement of the Millennium Development Goals, particularly environmental sustainability. The Decree establishes a system of performance indicators to measure impact and results of environmental investments at the regional level. The Three-Year Action Plan defines 15 core indicators to evaluate the impact of investments in priority areas. These indicators include issues such as conservation of priority areas (number of protected hectares), generation of employment and income from sustainable biodiversity use (green markets), reduction of vulnerability risk associated with natural disasters, and reduction in health impacts associated with environmental issues like water and air (see Policy Note on Environmental Health).

National plan to eliminate ozone-depleting substances. Colombia has made significant progress in regulatory and implementing activities to reduce ODS under the Montreal Protocol and the Vienna Convention. External assistance has been provided by UNDP, UNEP, UNIDO and World Bank projects totaling US$14.9 million for the period 1994-2004. Since the creation of the Technical Ozone Unit in 1994, 51 industry projects have been approved to eliminate ODS. Nearly 70 percent of the resources have gone to individual projects at large companies in the refrigeration and polyurethane foams sectors, followed by umbrella projects to medium and small companies with similar productive processes.

Future activities should focus on (i) expanding current efforts with small size companies, particularly in the refrigeration maintenance sector where it is most difficult to control and eliminate ODS; (ii) strengthening the legal framework by establishing mandatory certification for maintenance technicians; (ii) continued work with other government agencies such as customs; and (iii) completing the design and implementation of the regional strategy with universities, regional environmental authorities, and SENA. Private-public partnerships must be encouraged in the regions. Preparing medium and small-size companies to compete under the Free Trade Agreement is another positive expected outcome. Project implementation has shown than cleaner production with innovative designs and developments benefits not only global issues, but also competitiveness at the industry level.

Institutional capacity-building for global environmental management. As already mentioned, Colombia's institutional framework for environmental management is composed of an extensive legal background, comprising international treaties and national laws and regulations, and the SINA (National Environmental System), an institutional arrangement to cover global, national, regional and local environmental issues. However, the strong institutional context has some limitations in its everyday business that should be addressed to make it stronger and more efficient. In particular, there are some problems of information and coordination between the different entities of the SINA (which are mainly the Ministry of the Environment, the regional autonomous corporations (CAR), and the sectoral research institutes)[87]. Although the SINA group has been an important advancement to improve communication between the different entities of the SINA, an

[87] Ministry of Environment, Housing and Territorial Development (MAVDT)-Global Environmental Facility (GEF), 2003.

institutional assessment could be done to improve institutional coordination particularly in the implementation of international treaties and Conventions.

On the other hand, there is a need to improve research and development in environmental issues, such as clean technologies and sustainable use of biodiversity, so that scientific capacity building is highly recommended. International cooperation offers different alternatives to finance these needs, and the research institutes in SINA could benefit from them. The main challenge in this respect is to move from well-designed formal institutions to an optimal functioning in practice, regarding both the legal framework and the SINA organs. A critical review of the operation of the environmental institutions would be helpful, as well as of the abundant policies and plans that exist in the sector and in other relevant sectors (agriculture, infrastructure, health, etc.).

Recommendations for controlling biodiversity loss and other global environmental problems

The 2002-2006 National Development Plan identifies environmental sustainability as a foundation for economic growth, employment generation, and social equity. It also emphasizes the need for improved natural resources management as a fundamental factor for development, and recognizes the role of the environment as a source of critical goods and services. To this end, the Plan promotes the consolidation of the National System of Protected Areas, as well as the introduction of instruments to reconcile socioeconomic pressures and biodiversity conservation. The Plan also defines the need for a national green markets initiative based on the sustainable use of biodiversity, and for a consolidated national program to reduce greenhouse gases.

In addition, Vision 2019, which serves as a basis for the country's development plans and programs, includes a sustainable development strategy that highlights the importance of global assets to sustainable development. Colombia is working to be more competitive through the conservation of its Biodiversity, and provide the Colombian society with the positive economic and social benefits derived from its conservation and sustainable use. Therefore, the strategy aims to (i) strengthening the national system of protected areas; (ii) conducting the required actions for consolidating a 10-year plan for green markets, based on sustainable use of biodiversity; (iii) developing greenhouse gas mitigation projects under the Clean Development Mechanism; and (iv) continuing current efforts to eliminate ozone depleting substances.

A number of interventions are identified below that could be adopted in the short, medium, and long terms to make the conservation of global assets an agenda that contributes to local development and sustainability.

	Recommended	Recommended
Objective	**Short-Term Actions**	**Medium and Long-Term Actions**
Consolidate the National Agenda on Adaptation to Climate Change	• Include conservation and restoration of key ecosystems as an adaptation or response action to guarantee provision of key environmental services • Develop education and communication programs oriented at informing the public and decisionmakers of the importance of including global issues in the country's development agenda. • Assess impacts of climate change on water and energy supply. Develop a long-term strategy to address these impacts including an energy matrix that promotes renewables	• Institutional strengthening and technical assistance to produce reliable and continuous climate information relevant to major climate change vulnerabilities (health, mountain ecosystems, insular areas) • Strengthen public health program to incorporate measures that address increased threats of dengue and malaria. • Apart from coastal zones and high mountain habitats, target other priority ecosystems considering provision of environmental services and reduction of vulnerability to natural disasters.
Consolidate the National Agenda on Mitigation of Green House Gases	• Define a National Strategy for solid waste management and disposal, including mitigation (CDM) as a component; • Include mitigation options as part of massive urban transport operations	• Develop a project portfolio for land use change and forestry activities,
Develop and consolidate an inclusive National Protected Areas System	• Conduct an evaluation of the National Parks System that incorporates cultural, regional, and economic considerations and that involves stakeholders through participatory processes.	• Reform existing legal framework to resolve current inconsistencies in the Policy for Social Participation in Conservation. • Adjust Law 02 of 1959, the Code of Natural Resources of 1974, and Decree 622 of 1977 to harmonize them with the precepts of the 1991 Constitution.
Mainstream biodiversity conservation into management practices of agriculture, forestry and fisheries	• Conduct and document pilot studies that demonstrate the importance of conservation to environmental services, particularly water availability	• Foment institutional support for management strategies that promote the intensification of production through efficiency instead of land expansion. • Link specific projects with national plans and policies (FEDEGAN's objective of 10 million hectares in silvopastoral systems by 2019)
Strengthen the National Plan of Green Markets	• Promote national and international investment to strengthen green markets, respecting the rights of indigenous communities, as well as afro-Colombian, rural and other less-favored communities, and their fundamental rights as mayor beneficiaries of the green market policies	• Develop regulatory and economic incentives to support initiatives toward the development of environmental goods and services, including the certification process • Adjust environmental, commercial and technical regulations to eliminate internal barriers to both the development of green markets and the sustainable use of natural resources

	Recommended	Recommended
Objective	**Short-Term Actions**	**Medium and Long-Term Actions**
Consolidate the Agenda on National Elimination of Ozone Depleting Substances	• expanding current efforts to small size companies, • establishing a mandatory certification to maintenance technicians, • joint work with other governmental agencies • complete the design and further implementation of the regional strategy with universities, regional environmental authorities and the SENA (Servicio Nacional de Aprendizaje).	• Consolidate private-public partnerships in the regions • Prepare national medium and small size companies to compete facing the free trade agreement
Optimize the SINA coordination for implementation of international treaties and Conventions	• Take further steps to build institutional capacity, in particular concerning coordination and information issues in the SINA	• Exhaustibly revise the legal and policy framework for the protection of global assets to eliminate inconsistencies at the national , regional and local level.

References

Alexander Von Humboldt Research Institute (1998). *Colombia biodiversidad siglo XXI; Propuesta técnica para la formulación de un plan de acción nacional en biodiversidad* /Edited byM.C. Fandiño and P. Ferreira Miani. Bogotá, Instituto Humboldt, Ministry of the Environment, DNP; 1998.

Instituto de Hidrología, Meteorología y Estudios Ambientales de Colombia (IDEAM), 2002. Páramos y Ecosistemas Alto Andinos de Colombia, en Condición Hotspot and Global Climate Tensor.

Instituto de Hidrología, Meteorología y Estudios Ambientales de Colombia (IDEAM), (2000b). Indicadores de suelos, in http://www.ideam.gov.co/indicadores/suelos2.htm.

Instituto de Hidrología, Meteorología y Estudios Ambientales de Colombia (IDEAM), (2004). Informe anual sobre el estado de los recursos naturales y el ambiente en Colombia.

Ministry of Environment-National Parks Unit, 2001. "Política de Participación Social en la Conservación".

Ministry of Environment, Housing and Territorial Development, 2003. Colombia's National Capacity Self Assessment for global environmental management (NCSA), MAVDT – GEF.

World Bank (2005). Adapting to Climate Change. Working Paper No. 25

World Bank, 2006. Colombia: Integrated National Adaptation Program (INAP). Report No: 34058-CO.

World Bank (2006). Colombian National Protected Areas Conservation Trust Fund Project. Project Appraisal Document. Report No. 35125-CO.

Colombia's Urban Challenge: Improving Housing and Infrastructure Services for the Urban Poor[88]

Abstract: The urban sector in Colombia represents both a tremendous opportunity and challenge in the country's effort to sustain equitable growth and reduce poverty. Colombia is an urban country that will witness in the ensuing 15 years a 30 percent expansion in the population of its cities and towns. Poverty in Colombia is also increasingly an urban phenomenon as 60 percent of the country's poor live in urban areas. Improving the quality of life for the urban poor will require that cities and towns meet the demand for affordable shelter, expand access and improve the quality of basic urban infrastructure services. The Government has outlined a coherent investment and reform program to create 'livable cities' in the context of the Visión Colombia II Centenario: 2019. This strategy identifies actionable strategies to increase access to affordable land and shelter, a series of measures to improve the quality of financing and strengthening of the commercial and operational management of in the water and sanitation sector and a coherent strategy of supporting appropriate public transport solutions through integrated mass transit systems, improved traffic management practices and alternative public transport solutions in large, medium and small cities and towns. This note recommends on issues of land and housing that Government must more aggressively tackle key bottlenecks to increasing access to affordable shelter for the poor including the reform of interest rate ceiling policies, building on recent progress to further improve the targeting and structuring of housing subsidies, catalyzing housing microfinance targeting incremental construction and improving municipal land use management practices, amongst other measures. In the water and sanitation sector, the note recommends efforts to improve the efficiency of financing in the sector, measures to encourage economies of scale in the sector which is currently highly decentralized and enhanced technical assistance for commercial and operational management. The note also encourages the Government to enforce regulation in the public transport sector to address oversupply of public transport and strengthen efforts to build municipal capacity in transport planning.

[88] This chapter was written by Taimur Samad with the collaboration of William Britt Gwinner.

Urbanization, growth, and the urban poor

Colombia's future is increasingly an urban one as cities and towns are growing rapidly. Colombia's urban population of 32.7 million accounts for approximately 72 percent of the country's 45.3 million citizens. These urban residents are distributed between 1098 cities and small towns and over 65 percent of urban residents are concentrated in cities over 100,000 residents (see Table 1 below).

Table 1. Urban Population Distribution, 2004

Population Range	No. of Cities	Urban Population	percent	Average Population
More than 5 million	1	7,014,111	21	7,014,111
Between 1 and 5 million	3	5,677,981	17	1,892,660
Between 500,000 and 1 million	3	2,192,210	7	730,737
Between 100,000 and 500,000	31	7,687,906	24	247,997
Between 50,000 and 100,000	41	2,832,679	9	69,090
Less than 50,000	1019	7,296,248	22	7,160
Total	**1098**	**32,701,135**	**100**	
Sources: DNP, DANE (2004)				

The Administration projects that by 2019 Colombia's population will increase to 55.4 million of which 42.4 million (77 percent) will be located in urban areas. This amounts to an increase of approximately 10 million new urban residents (30 percent) during a 15 year period (Table 2). Based on these projections, almost all of the projected net population growth in the county between 2004 and 2019 will take place in urban areas. It is critical to note that the projected growth in the urban population will apply the greatest pressure on medium-sized and large cities. This increased pressure on the urban system will manifest itself in numerous ways including an increased demand for affordable land and housing and more intense pressure on utilities and service providers to expand access and improve the quality of key basic services including those for water, sanitation, solid waste and urban transport.

Table 2. Projections of Urban Population Growth, 2004-2019

Indicator	2004	2019	Increase
Total Population ('000)	45,325	55,385	10,060
Urban Population ('000)	32,722	42,376	9,654
percent Urban of Total	72	77	5
5 Principal Cities ('000)	15,216	19,892	4,676
Cities Larger than 100,000 ('000)	23,354	31,208	7,854
No. of Cities with more than 1m	4	7	3
No. of Cities with more than 100,000	38	55	17

Sources: *DNP, DANE (2004)*

Recent economic growth in Colombia has been driven by, and has had a strong impact on, urban areas. As urban systems increasingly integrate into the market economy, the potential for rapid growth and job creation also increases. Colombia has experienced a sharp improvement in overall economic performance since 2002. Annual growth rates of 4 percent for 2004 and 5.75 percent year-on-year in the third quarter of 2005 have in many respects been driven by and benefited the urban sector. The seven principal cities in the country accounted for approximately 65 percent of GDP in 2004 while representing only 32 percent of total population. Bogotá alone accounts for 22 percent of GDP with approximately 15 percent of the national population[89]. Recent strong economic performance is mirrored in employment and income data. Urban unemployment fell from 16.9 percent in 2002 to 12.1 percent in November 2005[90]. Similarly, average per capita income in urban areas rose by 13.3 percent and the GINI coefficient for urban areas also fell slightly from 0.55 to 0.53 in the same period[91].

In fact, evidence suggested that the elasticity of poverty with respect to growth in Latin America is far greater in urban areas than in rural areas[92]. Urban poverty in Colombia has decreased on aggregate between 2002 and 2005 from 50.2 to 42.3 percent. A sharp decrease of 5.0 percent was noted between 2004 and 2005. Similarly, extreme urban poverty fell from 15.5 percent to 10.2 percent between 2002 and 2005 – with the most significant decrease of 3.5 percent occurring in the last year. Over 1.6 million of the 2.3 million Colombians pulled out of poverty since 2002 were located in urban areas[93].

Aggregate income or consumption-based measures of urban poverty also fail to capture the nature of deprivation and vulnerability faced by the urban poor. In monetized urban economies the poor are more vulnerable to macroeconomic shocks and structural transformations as they depend for their livelihoods disproportionately on insecure and low-quality labor force participation with inconsistent access to informal and formal social safety nets. In times of recession in the economy real wages can stagnate or rapidly contract leading to an increase in poverty. Additionally, in urban economies the poor are often priced out of shallow markets for adequate shelter and conversely seek housing solutions in precarious and under-serviced informal settlements. Urban poor households also pay a disproportionately large share of household income to access basic transport, infrastructure and social services. The urban poor are disproportionately victims of crime and violence that has a real economic impact in terms of lost earnings and limited mobility. Lastly, the urban poor are also subject to residential segregation and discrimination that can constrain earning capacity. While urban joblessness and poverty rates have improved in recent years, Colombia's cities and metropolitan regions must actively seek to remain economically competitive and generate high quality, skill-based employment accessible to the urban poor.

[89] DNP (2004).
[90] DANE (2005a).
[91] DNP (2006).
[92] World Bank (2005a).
[93] DNP (2006).

Creating access to adequate and affordable shelter is perhaps the single greatest urban challenge that Colombia will face in the ensuing decade. The combined qualitative and quantitative housing deficit is over 2 million and growing. The Administration plans to eliminate the qualitative deficit and significantly meet the demand for new housing units by 2019 through a program of demand and supply-side subsidies and related reforms. However, both deficits have grown in recent years despite the government program, and markets are unable to meet the demand for improved and new housing units. Constraints in the access to affordable and serviced land in Colombian cities also complicate the prospect of achieving adequate shelter solutions for the poor. Without fundamental improvements in the policy framework for land and housing, the pressure on these markets will only intensify as urban areas grow, leading in turn to the growth of precarious and under-serviced informal settlements.

Colombia has performed well on aggregate in the delivery of basic urban water, sanitation and transport services and has coherent programs of investment and reforms in place to address growing demand. However, aggregate measures of service levels in urban areas often fail to capture intra-urban inequalities in access, affordability and – most importantly – quality of service. In the ensuing decades Colombia will need to enhance the availability and affordability of urban transport services for the urban poor, increase the coverage and quality of a range of basic urban services, and enhance the efficiency of decentralized water and sanitation utilities. Cities and smaller municipalities in Colombia are the battlegrounds for political, organized and economic crime and violence. Recent years have seen improvements in the incidence of crime and violence. An improvement in the security situation since 2002 has likely had a positive impact on urban areas. Between 1993 and 2004 the homicide rate in Bogotá fell dramatically from 81.2 to 22.6 per 100,000 residents[94]. In parallel to overall reductions in homicides, violent crimes and kidnapping - guerilla attacks on municipalities decreased by 80 percent between 2003 and 2004. Additionally, in 2003, approximately 190 of the over 240 mayors returned to their municipalities after having been forced to leave in 2002 due to threats form violent groups[95]. The ability of municipalities to deliver basic urban services has likely been enhanced as mayors were able to assume office and attend to the business of managing municipal services.

Nonetheless, homicide rates and related measures of crime and violence in Colombia remain amongst the highest in the world and pockets of extreme violence in cities including Cali and Medellín persist. In 2004, Colombia reported a national homicide rate of 44 per 100,000 residents. Additionally, analysis of the distributional impact of crime and violence in Colombia demonstrates that the urban poor disproportionately bear the impact of homicides and domestic violence[96]. Colombia will need to sustain recent reductions in the incidence of crime and violence and mitigate the particular insecurity that the urban poor face to ensure that quality of life in its cities and towns improves in ensuing years.

The ability of Colombia to achieve national development goals in the ensuing two decades will in large part depend on how it is able to manage the pressure that growth and

[94] Secretaria de Gobierno de Bogota (2006).
[95] World Bank (2005b).
[96] See Gaviria and Velez (2001).

expansion will exert on the cities and metropolitan systems. Will citizens be able to secure access to affordable and serviced urban land or will the current constraints on land intensify leading more Colombians to informal settlements without adequate access to basic services? Can the Administration mobilize effective strategies to revitalize housing and mortgage markets to address shortages in access to an improved and new housing stock? Similarly, can programs of reform and investment be mobilized to achieve universal access to urban water and sanitation services and affordable urban transport services? More broadly, how will Colombia's cities remain economically competitive, generate high quality jobs and mitigate the vulnerability of its poor to crime and violence? Meeting these challenges associated with urban growth will require a consolidated long-term vision focused on key areas of policy reform and an integrated medium-term program of investments.

The remainder of this Policy Note analyzes these challenges and provides succinct guidance as to how the Administration may consolidate existing reforms and introduce new strategies to revitalize land and housing markets, markedly improve urban service delivery and strengthen urban governance. This Policy Note does not address issues of economic competitiveness, crime and violence prevention and social inclusion as these themes are addressed by other Policy Notes in this series. Section three of this Note presents an overview of the Administration policy in these core sectors. Section four analyzes in greater detail Colombia's recent performance in these sectors and identifies key areas for further reform and investment. Lastly, section five below consolidates recommendations to the Administration that might assist national and municipal governments to respond and take advantage of the opportunities that urbanization presents to reduce poverty and improve quality of life for the urban poor.

Administration policy

The Government of President Álvaro Uribe Vélez outlined in August 2005 a *Visión Colombia II Centenario: 2019*[97]. The Vision 2019 constitutes a broad long-term vision for the country based on technical analysis and extensive national dialogue with political parties, academics, unions, technical experts, regional representatives and citizens. The Vision 2019 is organized around four broad objectives and 17 key strategies that would need to be successfully executed to achieve this vision. One of these strategies **is to create livable cities – or *ciudades amables*.** This strategy recognizes the important challenges associated with the availability of affordable urban land, creation of accessible housing, improvements in water and sanitation service delivery and improvements in the affordability and availability of urban transport. Based on this assessment, the Administration has articulated 13 key goals and objectives with specific indicators. Table 3 below summarizes the Administration's vision for sustainable urban development and key quantitative and qualitative targets for 2010 and 2019[98].

The Administration's strategy for creating livable cities comprehensively examines key sector issues and outlines a series of proposed policy reforms and program interventions

[97] See http://www.dnp.gov.co/paginas_detalle.aspx?idp=366.
[98] DNP (2005).

that aim to enable the Administration to achieve short- and medium-term sector objectives[99]. This policy note builds on this comprehensive strategic framework outlined by the Administration. The note examines in greater detail issues of land and housing, water and sanitation and urban transport services with the aim to provide a series of recommendations in each sector that may serve to better focus and deepen the Administration's strategy and overcome important bottlenecks in the reform process.

[99] See http://www.dnp.gov.co/paginas_detalle.aspx?idp=846

Table 3. Livable Cities Strategy Objectives and Targets – Vision 2019			
Objective	**Current Situation**	**Target 2010**	**Target 2019**
Objective 1: Increase access to public spaces in cities with more than 100,000 inhabitants	4m2/inhabitant	6m2/inhabitant	10m2/inhabitant
Objective 2: Achieve efficient urban land use and save for public uses 50 percent of new urban land through expansion	Annual land use of 3,500 ha	Land save 8,600 ha	Land save 25,000 ha
Objective 3: Achieve efficient management of urban development	1003 municipalities with POT 3 Land Observatories (OSMIS) 3 real estate banks Design cadastre and land registry systems	20 OSMIS are online real estate banks Cadastre and land registry systems are integrated into the entire country	POTs are used efficiently to manage land supply 55 OSMIS are online 55 real estate banks are functioning
Objective 4: Mitigate the formation of new informal settlements	Quantitative deficit of 19.4 percent	1 million new houses Quantitative deficit if 19.0 percent	3.9 million new houses Quantitative deficit of 12.3 percent
Objective 5: Improve conditions of homes in informal settlements	Qualitative deficit of 10.0 percent	240,000 homes improved Qualitative deficit of 6.0 percent	804,000 homes improved Qualitative Deficit of 0 percent
Objective 6: Increase financial intermediation in the housing sector	Mortgage Debt/GDP: 5.9 percent LTV average: 20 percent a 25 percent Disbursements/GDP: 0.5 percent	Mortgage Debt/GDP: 6.2 percent LTV average: 40 percent Disbursements/GDP: 1.3 percent	Mortgage Debt/GDP: 12.7 percent LTV average: 63.9 percent Disbursements /GDP: 2.3 percent
Objective 7: Construction sector is efficient and competitive	El MAVDT start the implementation of the National Information Network with the SFV module	National Information Network, guarantee policies and quality standards	
Objective 8: Increase the coverage of urban water supply and sanitation	Urban water supply: 97.4 percent Urban sewerage: 90.2 percent	Urban water supply: 98.5 percent Urban sewerage: 94.5 percent	Urban water supply: 100.0 percent Urban sewerage: 100.0 percent
Objective 9: Increase coverage of rural water supply and sanitation	Rural water supply: 68.6 percent Rural sanitation: 57.9 percent	Rural water supply: 75.1 percent Rural sanitation: 65.5 percent	Rural water supply: 82.2 percent Rural sanitation: 75.2 percent
Objective 10: Treat 50 percent of wastewater	8 percent treated	30 percent treated	50 percent treated
Objective 11: Adequately collect and dispose of 100 percent of solid waste in urban areas by 2010	Less than 50 percent	100 percent collected and disposed	100 percent collected and disposed
Objective 12: Support the adoption of alternative modes of transportation en cities with less than 300,000 inhabitants	Pilot project in the Municipality of Funza (Cundinamarca)	103 small cities have '*planes de mobility*'	287 small cities have '*planes de mobility*
Objective 13: Implement measures to better manage transport and traffic in cities with between 300,000 and 600,000 inhabitants	Pilot projects in the cities of Ibague, Popayan and Pasto	7 cities have efficient urban transport systems	10 cities have efficient urban transport systems
Objective 13c: Implement integrated mass transit systems in cities with more than 600,000 inhabitants	Advances in the projects of 8 cities at the national level	Integrated mass transit systems are operational in 9 cities	Integrated mass transit systems in 9 cities are adequately maintained
Source: Compiled by author from DNP (2005)			

Housing, land, and infrastructure services for the poor
Access to affordable housing and land

Housing production in Colombia lags well behind household formation. It is estimated that the cumulative qualitative and quantitative housing deficit is in excess of 2.3 million units of which the quantitative deficit is approximately 1.5 million homes and the qualitative deficit is over 0.8 million homes. In sum, the cumulative deficit stands at about 31 percent of all households. Additionally, it is estimated that the formal housing sector currently meets only 51 percent of the annual demand for housing from new household formation. In fact, the rate of new housing production per 1000 inhabitants in Colombia is only 2.0, far below the global average of 6.5 housing units per 1000 inhabitants.

Figure 1. Quantitative Housing Deficit

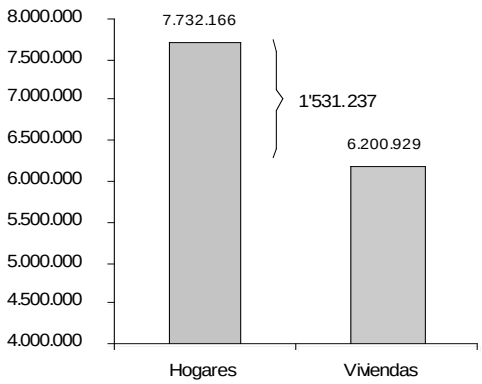
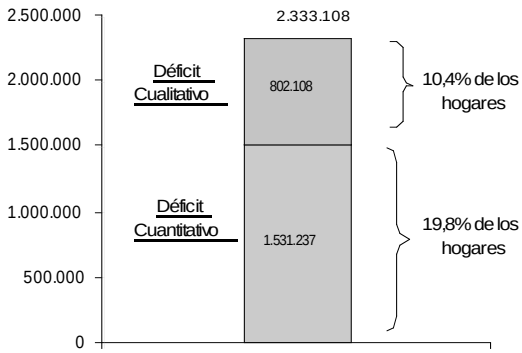


Figure 2. Total Housing Deficit



Sources: *DNP (2005) based on data from DANE*

The lack of access to adequate housing is predictably acute for the poor and middle-income. An analysis of housing demand and supply in 17 Colombian cities found that only 49 percent of all households in the bottom three income brackets owned or were in the process of obtaining ownership of housing units while an additional 34 percent of households renting or sub-leasing units. The poor generally rely on incremental construction of informal units rather than entering the rental market. The quality of construction of informal or self-help units often falls below basic standards. It is estimated that 24 percent of the national housing stock was inadequate in terms of the quality of construction, number of rooms or access to basic services[100]. This latter category of informal and low-quality housing stock represents an important market for incremental construction and finance that is not currently being met.

The challenge of meeting the demand for new and improved housing will only intensify in ensuing years. Given the slow pace of social housing construction and urban population

[100] CEDE (2005a).

growth, it is likely that the percentage of urban households that live in informal settlements will increase from the current figure of 16 percent. It is estimated that between 2004 and 2019 over 3.95 million new households will form principally in urban areas. In order to meet this demand the housing sector would have to generate approximately 263,000 new units annually – not accounting for the existing quantitative deficit of over 1.5 million. This challenge is considerable given that in 2003 the housing sector was only able to generate approximately 91,000 new units, leading to increasing numbers of households without access to formal housing and adding to the stock of informal units. Of the projected increase in new household formation it is estimated that over 2.1 million of these households will be candidates for social interest housing (VIS). The Administration has made important progress in supporting VIS construction and targeting new construction to the poorer Colombians. Average annual VIS construction between 2002-2006, the period of the first Uribe Administration, was approximately 20 percent greater than the same average during the previous political administration. Additionally, new VIS construction starts between the second quarter of 2005 and the first quarter of 2006 are up by 20 percent from the same period then year before[101].

Though an important advance, recent data on new housing construction suggests more progress is needed. Table 4a below presents data for completed new housing units between in 2004 and 2006 in Colombia's seven principal metropolitan areas. Over a four quarter periods between early 2004 and 2006 total new housing construction was up 9 percent with approximately 79,000 new units completed[102]. Of particular concern from this data is that VIS construction experienced far slower growth than non-VIS construction. Table 4b examines data on VIS construction between 2001 and 2006 and demonstrates that, despite unusually robust VIS construction in 2002-2003, social interest housing construction has not kept pace with growing demand.

Table 4a. Finished Housing Units, 2004-06

Types of Housing Units	Quarters		Variation (percent)
	II/2004 - I/2005	II/2005 – I/2006	
VIS	28895	29297	1.39
No VIS	44543	50287	7.82
Total	**73438**	**79484**	8.37

Table 4b. Finished Social Interest Housing Units

Annual Period - Quarters	Units
II/2001 - I/2002	33,312
II/2002 - I/2003	42,339
II/2003 - I/2004	38,802
II/2004 - I/2005	28,895
II/2005 - I/2006	29,297

Source: DANE Censo de Edificaciones (1st Qtr.2006)

[101] DANE (2006).
[102] DANE (2006).

Mortgage finance for new housing construction is frequently not an affordable solution for the poor. A recent analysis of the affordability of financing new housing construction in Bucaramanga, Metropolitan Bucaramanga and Cartagena found that households in income strata 0-3 cannot afford to service a standard mortgage for a new home construction. The average cost of a formal sector home was estimated at between US$ 7000 and US$ 9000 for these areas with a required mortgage payment estimated at between US$ 90 and US$ 115 per month[103]. The minimum total monthly household income required to adequately service this loan would be between approximately US$ 275 and US$ 350, or between 2.0 and 2.5 times the minimum salary. Table 5 below presents the results for analysis. Household income in strata 0 and 1 ranged from 0.59 to 0.92 minimum salaries per month. Affordability did not improve significantly for households on strata 2 and 3 where income ranged from 0.97 to 1.40 minimum salaries per month[104]. The inability of lower income households to afford mortgage finance for formal housing solutions suggests that these consumers would be increasingly inclined to pursue incremental and informal housing solutions. The Administration should consider deepening support for incremental housing solutions through more widely available and more effectively targeted subsidies and innovative construction- and materials-support programs.

Table 5. Affordability of Formal Housing Finance for the Poor

(Bucaramanga and Cartagena)				
Income Strata	**Required Mon. Income for Formal Solution (Min. Salaries)**	**Bucaramanga Average Mon. Income (Min. Salaries)**	**Met. Bucaramanga Average Mon. Income (Min. Salaries)**	**Cartagena Average Mon. Income in Min. Salaries (percent variation)**
0	2.0 – 2.5	0.68	0.59	0.59
1	2.0 – 2.5	0.92	0.73	0.75
2	2.0 – 2.5	1.01	0.97	1.02
3	2.0 – 2.5	1.28	1.31	1.40

Sources: CEDE (2005b)

Colombia has an innovative subsidy system that aims to improve access to adequate housing – yet the use of these subsidies has stagnated in recent years. Table 6 below shows that the between 1991 and 2006 the Government has provided over 1.4 million subsidies for new housing construction, housing purchase and incremental improvements. However, the pace of subsidies has seriously diminished since mid-1990s, and the funding remains small in comparison to other countries with more successful subsidy programs. For instance, while Chile annually spends on the order of 1 percent of GDP on housing subsidies, Colombia spends 0.16 percent[105]. The performance of the subsidy program has improved in

[103] Calculations are based on a competitive financing package with 20 percent down over a 180-month term with interest at 1.5 percent per month.
[104] CEDE (2005b).
[105] If subsidies provided through the Cajas de Compensación and Fondo de Ahorro were included, this ratio would increase to 0.35 percent of GDP.

recent years with a greater focus on subsidies for new housing construction as opposed to those for incremental improvements as was the policy between 1994-98. Approximately 330,000 subsidies were approved between August 2003 and February 2006[106]. Despite improved performance, the subsidy program has been unable to meet all the demand for supplemental housing assistance. The current Administration has recognized these shortfalls in the financing of subsidies and has increased in the 2007 Budget financing for the SFV and Fovivienda subsidy programs by 70 percent.

Table 6. Total Housing Subsidies

Year	Subsidy		Year	Subsidy
1991	26,530		1999	49,978
1992	70,506		2000	58,175
1993	118,468		2001	80,537
1994	161,347		2002	60,478
1995	149,592		2003	59,185
1996	135,811		2004	89,231
1997	125,494		2005	106,175
1998	67,228		2006	102,200

Evidence suggests that while the poor have access to subsidies social housing, many do not apply for or use the subsidies. An analysis of housing demand and supply in 17 cities found that poor households were more likely to apply and receive housing assistance. This result suggests that the subsidy system does not discriminate against the poorest. Nonetheless, parallel obstacles to accessing and using subsidies do exist. Only 60 percent of all households in the income strata 0-3 participating in the study had solicited VIS subsidies of which an average of 74 percent of applications were approved. Households that had not applied for the subsidies cited a host of reasons including concerns over interest rates and the likelihood of accessing supplemental credit. Additionally, approved applicants were disproportionately from top of the income range – within the same income strata – and were more likely to have formal as opposed to informal employment. Of the approved applications over 12 percent do not use the subsidy because they are unable to access supplementary credit[107].

Revitalization of the housing finance sector would have a great impact on the supply of housing units. While mortgage finance is not sufficient to eliminate the housing deficit, a greater flow of purchase and renovation finance would significantly contribute to stability and growth in the financial sector, overall economic growth and poverty reduction. However, for mortgage finance to work for the urban poor it will need to be complemented with better targeted subsidies.

[106] See Ministerio de Ambiente, Vivienda y Desarrollo Territorial press release on April 4, 2006 (http://www.minambiente.gov.co/noticias_home_2006/abril/040406_camacol/camacol.htm).
[107] CEDE (2005a).

In the wake of the financial crisis of 1998, the Government successfully restructured the financial industry. As a result, surviving mortgage lenders are healthier and for the most part more diversified, having developed consumer and commercial lending businesses. *Titularizadora Colombiana* has pioneered the regular issuance of mortgage backed securities, providing an important funding and risk management tool to lenders. However the limited new mortgage lending that followed the crisis has been limited to upper income brackets due in part to the high fixed costs of constructing a housing unit and of lending. As a whole, however, housing finance has shrunk at an astonishing rate since 1999. The country's mortgage portfolio fell considerably between 2000 and 2004, from 12 percent of GDP before the crisis to 5.9 percent of GDP[108]. Once a leader in Latin America in terms of volume, the Colombian mortgage industry is now smaller in relation to GDP than that of Chile (12 percent) or Mexico (8.8 percent), and much smaller than the 50 percent of GDP typical in North America and Western Europe. Recent growth in construction has been for high-end homes funded from local savings and capital inflows rather than from credit.

The Administration has undertaken a number of important, but ultimately limited, initiatives to encourage greater engagement of the financial sector in housing finance so as to reduce the housing deficit. These include: (a) elimination of bottlenecks in the delivery of subsidies to enable more families are able to access credits; and (b) a promising but severely limited mortgage lending program by *Cajas de Compensación*. However, in spite of these efforts, there remains an annual production shortfall of between 60,000 and 80,000 units. Very few credits reach households in the informal sector, which makes up more than 60 percent of low- and moderate-income households.

Interest rate ceilings imposed by the constitutional court prevent lenders from setting prices to fully compensate for the risk of lending to low and moderate-income households. The central bank has maintained the interest rate ceiling at 11 percent for VIS loans and 13.9 percent for non-VIS loans. As inflation has fallen, a profitable non-VIS business has become possible within this ceiling - all other factors being equal. As a result, originations of non-VIS loans have risen to levels comparable to the early 1990s. Likewise, it recently has appeared that rates will fall enough that ceilings for VIS loans will no longer limit the potential for a profitable VIS business. Nevertheless, the abiding risk that the central bank would further reduce ceilings to reflect changed conditions acts as a disincentive for lenders to serve the VIS segment.

Legal risks in three broad forms continue to temper the confidence of mortgage lenders. First, a perception that the central bank will further reduce the interest rate ceiling persists amongst mortgage lenders. Lenders fear that if ceilings were lowered the constitutional court may require that all existing loans be re-priced, as it required in the redenomination to UVR in 1999, at substantial cost to lenders. While this perception exists, Government has stated that potential future lowering of interest rate ceilings by the Central Bank would not necessitate a re-pricing of the existing the loan portfolio. In the previous case re-pricing was related to the fact that the UPAC formula was calculated on variables other than inflation.

[108] Data are based on figures from June 2000 and December 2004.

Second, there remains a judicial risk associated with the relatively long time to foreclose on a defaulted mortgage. Law 794 of 2003 reduced the time to foreclosure and evict by an estimated three years. However, the current expected time for foreclosure and eviction of 675 working days is high and presents a high cost to lenders. In an effort to better balance the rights of lenders, a total period of four to six months from the time of default should be possible while maintaining adequate protections and appeals for the mortgage borrower. The current process could be shortened in a number of ways including reducing: (i) the initial period for notifying the borrower of the judicial decision from an estimated 323 days; (ii) the time required to appraise the property from 46 days: (iii) the judicial foreclosure sale time from the current 113 days.

Third, mortgage lenders are constrained by product design restrictions in Law 546 of 1999 that, among other things, outlaw floating rate peso loans. Such loans could be a useful product for lower income households in the current low-inflation environment. As a result of this and other restrictions, instead of taking out mortgages, moderate income individuals borrow in pesos at terms just under five years to supplement their savings and buy apartments. Low-income and informally employed individuals are effectively excluded from formal sector financial services. Nonetheless, recent progress has been noted in these areas as mortgage lenders have begun, starting in 2006, to offer longer-term loans at fixed interest rates to middle-income borrowers.

Numerous tax subsidies for housing finance call for improved targeting. Tax subsidies directed at higher income households have in theory a net positive benefit on the economy by catalyzing demand for non-VIS housing, generating new housing stock, creating employment and economic activity in construction-related sectors, and increasing tax revenues at the national, departmental and local levels. Empirical analysis on the net benefits of these subsidies is underway as MAVDT and DNP are currently collaborating on a formal cost-benefit study on these tax subsidy instruments. However, tax subsidies for upper-middle income and wealthy households also absorb fiscal resources and reduce the amount of funding available for subsidies focused to lower-income residents who are unable to afford market-based housing solutions. Such subsidies – despite their anticipated downstream impact on the economy – have the effect of encouraging further inequity in the subsidy system while also creating market distortions. A thorough review of the subsidy system exploring a range of alternatives for structuring subsidies to be better targeted, more equitable and with fewer market distortions would be useful.

Increasing the efficiency of tax subsidies for mortgage lending will likely call for their restructuring to: (i) eliminate benefits to wealthy households; and (ii) directly benefit low-income households in light of the existing constitutional court-imposed restrictions on VIS lending. These benefits range over the entire mortgage value chain, from exemptions for savers that overwhelmingly benefit upper-income earners to exemptions on interest earned on mortgage-backed securities. Tax subsidies should be eliminated for housing savings accounts. High investor demand indicates that the tax break on mortgage backed-securities collateralized with non-VIS loans may no longer be required to stimulate this market. To encourage VIS lending, the Administration may consider providing subsidies to lenders that would compensate them for the costs of making VIS loans, as has been done in Chile.

In this context, the Administration could consider an expanding the offering of mortgage default insurance products for social interest housing. *Fogafín*, the *Fondo Nacional de*

Garantías and *Titularizadora*, amongst others, all have experience with and information on the performance of social interest housing loans. A mortgage default insurance product available for any social interest loan would permit higher loan-to-value ratio lending and reduce the risk of commercial lenders. Such a product would need to be priced to provide a market return on equity given reasonable loss expectations. International experience in the United States, Canada and Mexico (in the near-term) has demonstrated that the experience of government agencies in providing a mortgage insurance product could encourage the entry of the private sector in this market.

Microfinance lenders are eager to address informal sector needs for more flexible instruments focused on incremental housing. Unregulated micro-finance lenders remain the sole legal source of credit for most informal households. Like micro-finance lenders in other countries, these lenders tailor their loan products and collection methods to the earnings and living situations of low-income, informal households, and have kept default rates low. The Administration should examine ways to insure that micro-finance lenders are run in a prudent financial manner and that they gain access to long-term funds to scale up their programs without losing the advantages of their business model. For instance, the city of Bogotá estimates that 300,000 informal houses would benefit from short-term improvement loans that would allow them to meet earthquake and other structural standards. The Administration has a successful guarantee program that has led commercial banks to fund micro-enterprise loans. It should consider adapting this program to include housing renovation loans.

Access to affordable shelter is further constrained by the combination of poor land use regulation and planning, limited intra-municipal and metropolitan governance capacity and the diminishing supply of serviceable land in certain urban centers. An analysis of the land use patterns in Colombia's five major cities conducted in 2003 determined that available land for the creation of new housing units is highly constrained – barring a major change in patterns of densification. Table 7 below suggests that based on each city's *Plan de Ordenamiento Territorial* (POT) urban land available for new construction is limited. Based on the projected increase in households it is estimated that available new land would be exhausted in Bogotá within four years and in all five major areas in six years[109]. The ability expand urban boundaries is constrained in many cities by physical barriers, prohibitively high prices of peripheral land near certain urban agglomerations, high costs associated with the extension of basic infrastructure to these areas and the lack of a coordinated mechanisms in a metropolitan area to systematically acquire and service peri-urban areas.

[109] DNP (2004).

Table 7. Availability of Land in Five Major Urban Centers

City	Urban Land under Residential Use (Ha)	Available Urban Land for Residential Use (Ha)	Potential Housing Units
Bogotá	20,409	2,058	205,800
Cali	N/A	1,600	160,000
Medellin	7,640	519	51,900
Bucaramanga	1,914	107	10,700
Barranquilla	2,318	947	94,700
Total	**32,281**	**5,231**	**552,400**

Sources: DNP (2004).

The lack of adequate planning and the regulation of urban expansion have led to a rapid expansion or suburbanization of cities into peripheries with an accompanying deterioration of urban cores. The location of commercial and retail activities in former residential zones bordering the historical urban cores has resulted in a pattern of unplanned densification of certain zones or pockets unable to meet these new and intensified demands on aging and under-dimensioned infrastructure. The unplanned expansion of cities also implies real economic costs in terms of high maintenance costs for public infrastructure, increased traffic congestion and the rising cost of transport.

A key constraint to more efficient land use management in larger metropolitan areas involves the difficulty of achieving coordination in planning and regulation across municipalities. Within the current legal framework, metropolitan area institutions are meant to meet infrastructure and urban basic service needs for municipalities. However, metropolitan areas do not constitute a political or administrative jurisdiction with access to either a buoyant revenue base or a predictable source of transfers. As a result, metropolitan institutions are highly dependent on voluntary coordination and vulnerable to volatility in political decision making. The absence of clear incentives for coordination has a significant impact on the ability to effectively plan and regulate land use across the metropolitan region.

The Administration has in place a legal framework to facilitate more effective land use planning and regulation across municipalities. Law 388 of 1997 outlines a comprehensive regulatory framework for urban planning and land development through integrated territorial planning at the municipal level. The law aims to facilitate a contemporary approach to territorial planning through which municipalities would focus on medium-term strategic land use priorities. Over 94 percent of municipalities have prepared and approved territorial organization plans (POTs) to date. However, it is recognized that many of these plans are not being implemented and a majority of them do not serve as a true guide for municipal spatial planning.

New strategies and approaches, reforms in key regulations, improved land use planning instruments and a stronger focus on municipal capacity and metropolitan coordination will be required substantially if Colombia is to increase access to affordable land for the poor. Land use planning through the POTs will need to focus increasingly on strategic objectives and bold initiatives to improve access to affordable land. These strategies may include organized acquisition and servicing of peri-urban lands, renewal and redevelopment of

deteriorating urban zones with an emphasis on creating access to affordable shelter, divesting the state of its interest in public lands for use in the creation of social interest housing under the provisions of Law 708 of 2001, and targeted densification through property tax and related incentives. Additionally, increased municipal capacity and the use of better land use management tools will be required. Technical assistance to enhance planning skills and integrate the use of new tools at the municipal level is critically required. This assistance could include measures to accelerate the enforcement of the Law 388, continue land titling efforts, strengthen and update the cadastre, and transfer knowledge between municipalities from existing initiatives such as the land database (*Observatorios del Suelo y del Mercado Inmobiliario*, OSMI), successfully created in Medellin.

Water and sanitation

Colombia has made impressive progress in expansion of water and sanitation services in urban areas in recent years. Current level of access in urban areas is 97 percent for water and 90 percent for sewerage. The quality and coverage of water and sewerage services has been solid in the Colombia's largest cities (Bogotá, Medellín, Cartagena, Barranquilla, Bucaramanga), which serve a population of about 12 million inhabitants, though efficiency improvements are still needed[110]. Colombia's overall coverage levels are 10-15 percent higher than comparator countries in its income bracket and ahead of richer countries in the region including Mexico[111]. Nonetheless, aggregate statistics for water and sanitation coverage in urban areas often mask important weaknesses in service quality – which are disproportionately experienced by the poor and those living in urban informal settlements.

Despite general strong performance, challenges remain in terms of improving access to the urban poor. Key sector challenges include poor utility performance particularly in medium cities and smaller municipalities, high investment requirements and the need for increased efficiency and transparency in the subsidy allocation process, limited and ineffective subsidies to the poor, low wastewater treatment coverage and, despite a sophisticated national regulatory system, the need to improve the monitoring and evaluation of utility performance and to tailor sector interventions to encourage operational improvements by local utilities.

Utility performance has been mixed with smaller municipalities often lagging far behind in coverage and quality targets. The primary cause for poor utility performance, particularly in small and rural municipalities of less than 50,000 inhabitants, is inadequate management capacity often a result of political intervention in management. Poor utility performance is reflected in the comparatively lower quality of service provided and in inadequate commercial systems, low billing and collection, and inadequate maintenance. Coverage has improved in recent years in both urban and rural areas in Colombia. Nonetheless, important gaps in coverage exist between the country's principal metropolitan areas and smaller towns and rural areas. In 2003, overall coverage levels for access to potable water and sanitation in urban areas was reported at 97.4 and 90.2 percent, respectively. Rural coverage

[110] Cali is an outlier among Colombia's larger cities in that water and sanitation performance has been mixed in recent years.
[111] World Bank (2004).

rates for water and sanitation were 66.0 and 57.9 percent, respectively. Additionally, coverage rates do not reflect the real quality of service[112]. Data from 2003 on the continuity of water service as measured by 24 hour supply, presented in Table 8, varies considerably across Colombia's principal regions. Nonetheless, it is important to note that the same data demonstrates a convergence in the quality of service in recent years across the country with lagging regions catching up. The Government will need to reinforce these trends through a continued focus on utility performance in lagging regions.

Table 8. Continuity of Water Service by Region, 2003 (percents)

Year	Atlantica	Oriental	Central	Pacifica	Bogota	Antioquia	Valle de Cauca	Total
1997	48.3	61.7	75.6	65.1	79.9	84.1	93.2	71.4
2003	56.7	76.8	88.3	73.0	97.4	96.2	92.7	82.6

ource: ECV (2003)

These data indicate that (i) utility performance in the country, on average, is less than satisfactory; (ii) utility performance in medium and small municipalities is deficient; and (iii) there are great disparities between major cities and the rest of the country, with larger utilities presenting reasonable operational indicators of efficiency and smaller utilities presenting very weak operational and financial indicators). The poor performance of utilities in small and medium-sized cities has an important impact on the urban poor – as these areas tend to have high urban poverty rates than Colombia's major urban centers.

Colombia has had in place a highly decentralization framework in the water sector since 1986. Decentralization in the sector has led to the proliferation of over 1300 water and sanitation utilities throughout the country. These utilities can be differentiated into two broad market segments. The 40 largest municipal utilities serve over 70 percent of the urban population, or 55 percent of the national population. The atomization of the remaining service providers has led to substantial losses in scale economies and contributes to the weak management and precarious financial viability of small operators. In the medium-term, there is a strong need for Colombia to revisit experiences with decentralization in the sector and consider some re-aggregation of smaller utilities.

Broad decentralization in the sector has not been matched with commiserate regulatory capacity. The regulatory and supervising agencies have regulation and monitoring oversight responsibility for over 1,300 service providers in the country. This situation makes the regulatory activity costly and inefficient. Large utilities serving over 6 million inhabitants like Bogotá are regulated in the same way as those serving 2,000 inhabitants. The result has largely been one of paralysis, with the large fringe of smaller utilities lacking the capacity or inclination to engage in regulatory processes, and the central agencies themselves lacking the manpower to interact meaningfully with such a large number of service providers. Additionally, many of the smaller utilities are in such a precarious

[112] Data presented is from the *Encuesta de Calidad de Vida* (2003).

condition, that it is questionable whether regulation is even an appropriate intervention, as opposed to technical assistance or outright liquidation.

Colombia is currently pursuing a policy in the water and sanitation sector of supporting the specialized operators to strengthen utility performance. The emphasis is on creating incentives for municipalities to create or devolve responsibility for system management and capital investment in sector to independent public, private or mixed public-private operators – as opposed to municipal departments. Colombia has had in many respects been a pioneer in Latin America in adopting and experimenting with innovative public, private and mixed management models in water and sanitation utilities. Some of the most capable and best performing utilities in the sector are publicly-owned independent operators. Additionally, private sector participation is not uncommon among the largest utilities, and takes place within the framework of a distinctive mixed enterprise model. There has been significant experimentation with private participation, with more than half of the 26 largest utilities, equivalent to 13 percent of the urban market, operating with some degree of private sector involvement. Colombia has pioneered the mixed enterprise model for private sector participation in the water sector and investments are co-financed between the public and private sector to varying degrees. The Administration has in place technical assistance programs to assist specialized operators to improve commercial and operational practices. It is recommended that the Administration strengthen and expand access to these windows for technical assistance[113].

Investment needs in the sector are high. Total investment required in the sector over the next five years (2004-2008) is estimated at US$ 2.1 billion or approximately US$ 420 million per year. These figures include investment in wastewater treatment and maintenance of existing assets, as well as investments needed to reach the Millennium Development Goals for the sector. Consequently, there is a need for maximizing the efficiency and impact of government's support to the sector, in addition to increasing cash generation from utilities and attracting private sector investment.

In response to the need to more effectively target public financing, the Administration has developed the *Ventanilla Unica Program* which aims to channel capital grant resources from the national budget under harmonized selection and fund allocation criteria with enhanced technical quality control of subprojects. Eligibility criteria for the program explicitly target the poor and aim to enhance equity in access and quality of service. The program rationalizes a previously atomized transfer system in the sector involving financing from over 17 different institutions and is an important measure in bringing order in the system of subsidies of capital investments in water and sanitation. Nonetheless, important measures to strengthen the *Ventanilla Unica Program* are required. These include further consolidating federal financing in the sector under the program, strengthen the subproject review and

[113] The World Bank has supported these reforms through a series of recent operations including the Water and Sanitation Sector Support Project (29601-CO), Water Sector Reform Assistance Project (7077-CO) and the Cartagena Water Supply, Sewerage and Environmental Management Project (4507-CO), among others.

vetting process by building in-house capacity and maintaining ISO 9000 quality certification[114].

Subsidies are not adequately targeted to the poor. Cross subsidies are part of the design of the tariff structure in Colombia and have proven to be an effective mechanism for income redistribution in large urban areas. However, as the number of municipalities in which the entire population classified in the lower income strata has grown, the cross subsidy mechanism has become less effective. Given the unfavorable structure of demand and the fact that the sector is still far from reaching the legally established tariff parameters, the cross-subsidy scheme presents a large deficit of US$161 million per year, equivalent to 20 percent of sector turnover. Therefore, the current cross-subsidy scheme has proven an insufficient tool to expand service delivery in many peri-urban areas or provide sufficient financing in municipalities with predominantly poor populations, where the underlying imbalance between contributors and beneficiaries is greater.

A specific mechanism, Solidarity Funds, was proposed to allow a better service to low-income groups while helping utilities achieve financial sustainability by providing an additional direct subsidy to the service provider. However, as these funds are supposed to be financed with municipal resources, fiscal constraints at the local level have inhibited their rollout. As of 2002, only 54 percent of municipalities had established such funds, and of those only 5 percent were allocating resources to these funds. The current cross-subsidy mechanism also ails from poor effectiveness (30-45 percent of the resources leak away to households above the poverty line) due to deficiencies in the stratification system and the lack of precision in the subsidy calculation instruments. The system would benefit from a review and subsequent reform of the cross-subsidy system in the sector.

Only about 10 percent of the wastewater generated in the country undergoes any kind of treatment and only half of installed wastewater treatment capacity is operational. This is a result of deficient maintenance that leaves plants inoperative, and also to the fact that some plants are located in municipalities that still lack the necessary sewerage infrastructure for wastewater collection. The remaining 90 percent is discharged without any treatment, contaminating a significant part of the natural water resources. Contributions from the central government for water quality control are normally assigned as a result of difficult negotiations between regional and central authorities and there is no clear mechanism for financing municipal wastewater treatment plants.

Current regulation is based on tariff setting formulas that were designed to provide incentives for efficient services, but have not been fully successful in achieving these outcomes. Tariff levels are, in most cases, still too low due to political considerations that override sector incentives, and although significant progress has been made in setting tariffs to cost-recovery levels, the process is far from complete. In practice, the application of the tariff increases has been uneven. The largest utilities have made substantial progress, now charging reference tariffs within about 10 percent of the cost recovery benchmark, and

[114] The Bank is supporting the *Ventanilla Unica Program*, and the broad sector financing strategy that the program represents, through the Water and Sanitation Support Project (29601-CO).

making substantial progress towards the rebalancing of the cross-subsidy system. However, in the smaller utilities, there has been greater reluctance to embrace the goal of financial sustainability. This is due in large part to politicization on the Boards of the municipal utilities which are often presided over by local mayors and have tariff setting authority. Furthermore, a number of new legal measures taken in 2003 to increase the subsidy limit for Stratum 1 households from 50 percent to 70 percent of the tariff, and subsequently outlaw any future real increases in the tariffs of Strata 1 and 2 households, have effectively undermined the process of rebalancing of the cross-subsidy framework, making the goal of achieving cost recovery ever more remote. Nonetheless, the Government has recently developed in 2005-06 sophisticated tariff setting methodologies with efficiency criteria and cost-efficiency models that help to better focus tariff mechanisms on encouraging improved utility performance. The regulatory framework, while a leading example in the region, would benefit from continued improvement in order to further incentivize potential private investors and specialized operators to participate in the sector.

Urban Transport

Motorization rates are likely to increase in Colombia's main cities in the context of continued economic growth and increased trade. Increased motorization in Colombia's cities will likely exacerbate congestion, lead to negative environmental externalities and further reduce quality of life – particularly for the urban poor. Colombia has outlined a coherent program for reform and investment in urban transport as outlined under objective 13 of the Colombia Vision 2019 strategy. This program for reform and investment has been carefully crafted by the Administration based on an analysis of the particular characteristics and transport challenges faced in Colombia's major metropolitan areas and in cities of different sizes. These measures include the continued development and implementation of efficient and safe public transport systems, support for non-motorized transport and the development of a regulatory framework which encourages competition for access to the market for public transport routes – rather than a 'race-to-the-bottom' competition for ridership.

Urban transport costs represent a major burden for poor families. Approximately 70 percent of all urban residents use some form of public transportation. Expenditures on transportation, as a percentage of total household expenditure, are high for the urban poor. Transportation accounts for 24 percent of household income (or US$ 19 per month) for residents in the first income quintile. For quintile 2 and 3 inhabitants transport expenditures equal 8.1 and 5.6 percent of income respectively[115]. Existing government programs that aim to mitigate the cost of urban transport for the poor have generally failed to assist them. A number of policies aim to directly or indirectly enhance the affordability of urban transport services. These include foregone tax revenues of US$ 70 million on diesel for the urban bus sector and regulations requiring employers to spend US$ 293 million per year on transport subsidies for formal sector workers earning the minimum wage. However, only about 10 percent of the beneficiaries of these policies come from the first two income quintiles, and

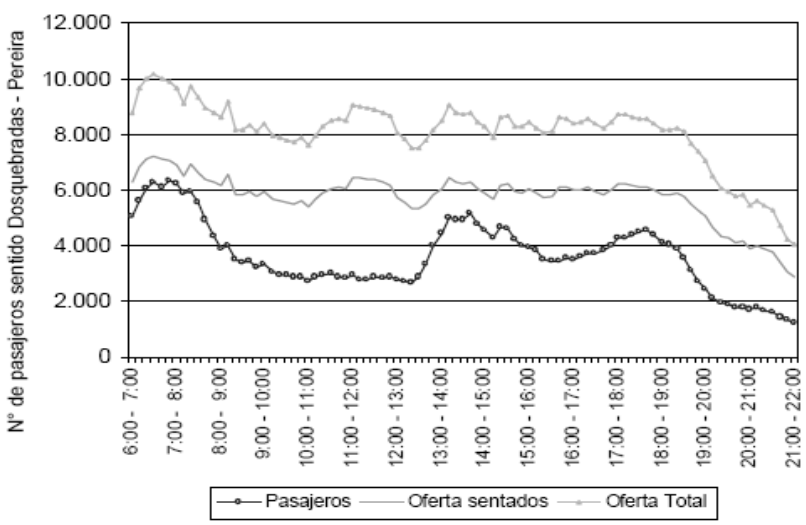
[115] There is some conflicting data here. Figure of 24 percent for quintile 1 is cited from the Colombia REDI, where DNP documentation in the context of *Colombia Vision: 2019* suggests that quintile 1 expenditures are 9.8 percent. Figures for quintile 2 and 3 are cited from *Colombia Vision: 2019* documentation.

they capture no more than 20 percent of the value of these subsidies[116]. Better targeting government assistance and subsidies in the sector will make a significant impact on the affordability of urban transport services to the poor.

Improving the quality and affordability of urban transport services for the poor is also closely linked to a series of broader sector challenges including the ability to reduce oversupply of public transport and rationalize routes, mitigate the aging of the vehicle fleet, better target the public resources to maintaining and investing in vital transport infrastructure and, most importantly, encourage high-impact, cost-effective integrated mass transit solutions. These sector issues manifest themselves through high average daily travel times, high congestion as measured by low average speed, limited affordability, and lack of public safety – factors that disproportionately impact the poor.

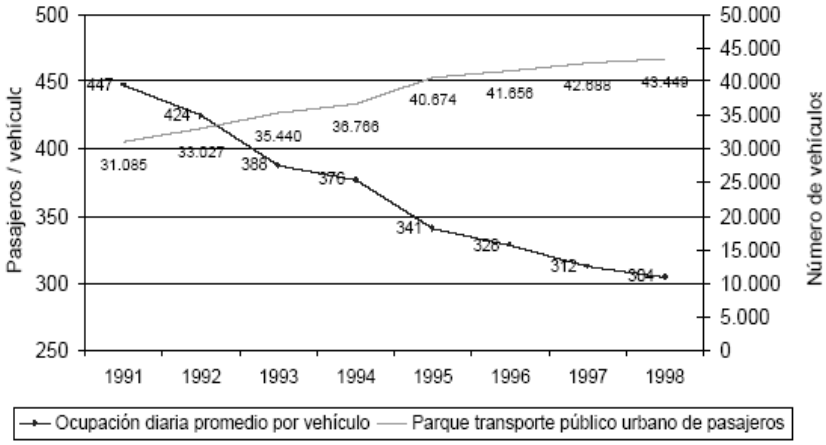
There is an approximately 40 percent oversupply of public transport in the country's primary urban areas. Figure 3 below provides data from an analysis of the supply and demand for public transport during peak and non-peak hours on the primary routes in the center of Pereira. During peak hours the analysis finds that the supply of seats on public transport exceeds demand and during off-peak hours the supply of seats is nearly 3 times demand. Oversupply of public transport is also reflected in data on total passengers per day per vehicle which has dropped from 450 in 1991 to 300 in 1998 (see Figure 4). Based on international standards and the cost structure in Colombian cities, it is estimated that this figure should be above to 500 passengers per day. The problem of over supply is correlated with the proliferation of unregulated and unplanned bus routes. In Bogotá, for example, it is estimated that between 70 and 90 percent of all routes pass through the city center leading to inevitable congestion.

Figure 3. Oversupply of Public Transport: The Case of Pereira



[116] World Bank (2004).

Figure 4. Evolution of Average Daily Ridership and Public Transport Fleet



Source: Figure 3: Unión Temporal TTC-Systra-GCT (2001) in DNP (2002); Figure 4: DANE in DNP (2002)

The lack of effective regulation of the public transport fleet and the route system has a direct effect on profitability, quality of age vehicles and congestion. An analysis in Colombia's principal cities found the average age of vehicle fleet was between 10 and 18 years, far above international standards and regional comparators. Similarly, at the national level the average speed of traffic was registered at 10 km/hr in 2004, far below the Latin American average of between 20 and 25 km/hr. One-way average travel time in Bogotá is 90 minutes while in Barranquilla and Pereira it is 40 and 36 minutes, respectively.

Oversupply public transport is driven by poor regulation and enforcement in the sector. Local authorities currently grant permits to operate routes to transport companies that fail to exercise sufficient control over buses operating under these permits. Revenues of transport companies are dependent upon the number of buses that are affiliated, creating a perverse incentive to oversupply. Owners of affiliated vehicles receive a fixed rent from bus drivers who in turn generate revenue from the maximizing the numbers of passengers served resulting in what is commonly referred to as the '*guerra de centavo*'. This 'race-to-the-bottom' competition for ridership creates an oversupply of seats, increases the systems overall operating costs and reduces the profitability of businesses in the sector creating few incentives new investments in fleet. The Administration has outlined its commitment to address the issues of over supply of public transportation by assisting more strictly enforcing quality regulations and rationalizing and reconfiguring the route systems in the principal metropolitan areas. Improvements have been noted in regulation and enforcement in association with the implementation of the *TransMilenio* system. However, the pace of implementation of these reforms has been slower than expected due in large part to political and social pressure applied by independent transporters.

Central and municipal governments have in recent years made an important effort to finance critical investments in the sector. In 2005 alone Colombia invested over US$ 1.7 billion, approximately 1.45 percent of GDP, in various capital investment programs in the sector. Nonetheless, the Government must focus continued attention on the need to improve the planning of capital investments and strengthen the quality of maintenance of transport infrastructure including the system of roads, traffic signals and signs. The combined impact of a poorly maintained road system and inadequate transport infrastructure are increased

delays, more congestion and higher costs for operations and maintenance of vehicles. In Cali, for example, it is estimated that a 25 percent improvement in the quality of road pavement would result in a 2 to 4 percent savings in vehicle operations and maintenance. On an annual basis this amounts to a savings of approximately US$ 6 million[117].

Addressing the urban transport challenge with new capital investment alone is not sustainable. In many Colombian cities, the bias towards new capital investments in recent years has left municipal governments incapable of meeting rehabilitation and maintenance requirements. It was recently estimated that Bogotá would require US$ 480 million to meet an existing backlog in rehabilitation needs for its road network – in addition to an average annual operations and maintenance requirement of US$ 75 million. However, income from the gasoline surcharge – the primary source of revenue for financing of capital and recurring costs in the transport sector for Bogotá – is US$ 75 million annually[118].

In Colombia's larger cities outside of Bogotá cost-effective Integrated Mass Transit Systems that build on the highly successful lessons of the *TransMilenio* (TM) system are required[119]. The Administration has outlined such a policy for all cities with populations over 600,000. A key constraint moving forward involves ensuring that these municipalities have adequate transport planning and regulatory capacity.

[117] DNP (2004).
[118] DNP (2004).
[119] In recent years the Bank has supported a series of investments and reforms in Colombia's urban transport sector including financing integrated mass transit systems including the Bogotá *TransMilenio* (TM) Bus Rapid Transit System (BRTS) and similar systems outside of Bogotá through the Integrated Mass Transit Systems Project (28926-CO) and the Bogotá Urban Services Project (24941-CO).

Recommendations and conclusions

This Note has aimed to analyze critical issues associated with the availability of land, housing and basic urban services for the urban poor in Colombia. The Administration has outlined a coherent program and reform and investment in the land and housing, water and sanitation and transport sectors in the context of the '*ciudades amables*' strategic pillar of the *Visión Colombia II Centenario: 2019*. The challenge for the Administration in the short- and medium-term is to ensure that implementation of these ambitious reforms and investment programs advance on schedule. For this to happen, the Administration will need to examine more closely and address key bottlenecks that currently prevent government programs from achieving desired outcomes. This section makes a series of recommendations that complement Vision 2019 policy recommendations in the urban land and housing, water and sanitation and transport sectors. The recommendations below also aim to focus in more acutely on specific obstacles to achieving sector goals.

Land and housing

Addressing the growing demand for affordable land and shelter requires a comprehensive strategy to better target housing subsidies, strengthen land policy and regulation, support and create incentives for construction and mortgage finance to reach the poor, and build the capacity of public institutions. The main objective of the strategy would be to create incentives and competition for the private and micro-finance sectors to address the demand for housing credit among moderate and low income households. To reach the poor, the private sector should be complemented by well targeted and relatively efficient subsidies and assistance programs. Additionally, the strategy would focus on improved land use planning and regulation and the strengthening of municipal and metropolitan governance.

In this context, the following broad recommendations have been made for the land and housing sector:

- ***Reform interest rate ceilings policy,*** recognizing that the current framework limits access to finance for lower-income groups. Interest rate ceilings imposed by the Constitutional Court limit access to credit, rather than increase access for the poor, by restricting the ability of lenders to charge an interest rate that compensates for the credit and operational risks of lending to lower income. In many other countries (e.g., Peru, Bolivia, Mexico, and Guatemala) lenders have successfully reached low income groups by charging higher rates of interest, with terms to maturity and loan amounts that low-income borrowers can afford. It is recognized that reforming interest rate ceilings policy cannot be done in the immediate term and would benefit from careful policy analysis and dialogue that aims to better understand the true costs of imposing ceilings. These may likely include reduced supply and hence higher unit costs for housing and, in the absence of true market competition, incentives to push interest rates lower. The Administration may consider looking at comparative cases in the region where countries have reached the poor without ceilings policies. It is strongly recommended that the Administration engage in this process of policy analysis and dialogue leading in the medium-term towards a possible revision of the Constitutional Court decision.

- ***Reduce the time to foreclose on a mortgage*** from the current two years to less than one year. International evidence from Europe and the United States demonstrates that lenders offer more mortgage finance at lower rates in an environment of efficient foreclosure and eviction procedures. While legislation in 2003 did reduce foreclosure and eviction periods, the current 675 working days it takes to process foreclosures can be sufficiently reduced. The body of this Note identifies three concrete targets for the reduction in processing times. The Administration would benefit from more comprehensive policy analysis, a sharing of comparative experiences in neighboring countries (e.g. Brazil) and more rigorous technical assistance focused on the reform of legal and administrative procedures. A working group consisting of government officials, mortgage finance institutions and relevant elements within the judiciary to lead this analytical and policy reform process.

- ***Expand the offering of mortgage default insurance*** products for social interest housing. Fogafín, the Fondo Nacional de Garantías and Titularizadora, amongst others, all have experience with and information on the performance of social interest housing loans. A mortgage insurance product would be priced to provide a market return on equity given reasonable loss expectations and over time could encourage the entry of the private sector in this market.

- Initiate efforts – such as warehouse lines of credit for finance companies – to ***encourage competition in the flow of credit to low-income households.*** Currently, only banks extend housing loans. Finance companies could compete with banks, as Sofols have done in Mexico, if given access to capital market financing sources.

- ***Continued review and adjustment of housing subsidies*** ito further focus and programs to the poor and residents in informal settlements. The body of this Note makes two key recommendations for the adjustment of housing subsidies: (i) restructure demand–side subsidies by increasing grant components for the lowest market segments; and (ii) target subsidies to lenders that make loans to low income or informal households to compensate for the extra costs of originating and servicing such loans in the context of VIS interest rate ceilings. Nonetheless, a more comprehensive review of housing subsidy policy would be useful. It is recommended that the Administration build on ongoing studies and initiate a comprehensive analysis of the coverage and depth of the subsidy system to outline medium-term reforms.

- Given its the overarching impact of excluding the poor from the financial sector, ***consider amending Law 546 of 1999 and accompanying constitutional court decisions to allow for greater flexibility in mortgage product offering by lenders.*** The loan product design excesses of the 1990s can be prevented through regulation and supervision by *Superfinanciera*. Control through regulation allows the industry to more rapidly adapt to changing market requirements.

- Adapt the regulatory framework and institute measures to ***encourage micro-finance institutions to scale-up operations focused on incremental housing finance.*** The Administration would benefit from comprehensive analytical work and technical assistance to develop a strategy for strengthening and catalyzing

the housing microfinance sector. This process should aim to improve the financial management of microfinance lenders and create access to long-term funds to scale up programs without losing the advantages of their business model. The Administration also could examine adapting its successful guarantee program that has led commercial banks to fund micro-enterprise loans to include housing renovation loans.

- ***Strengthen urban land management*** through improved territorial planning and the use of advanced land management tools, as proposed in the Law 388. The Administration should consider launching a program of capacity building and land use management systems improvements. This reform program should focus technical assistance to municipalities with technical support in the development of land for the poor and urban renovation.

- Consider the possibility, in the medium-term, of ***analyzing territorial jurisdictions and the division of responsibilities in metropolitan areas,*** with a view to strengthen the legal and regulatory framework that governs coordination and planning across multiple municipalities.

Water and sanitation

Colombia has in many respects been a pioneer in Latin America in terms introducing reforms in the water sector. However, decentralization in the sector during the 1980s has resulted in a sharp divide between a handful of large utilities and the over 1000 small utilities servicing medium and small towns and rural areas. This latter group of service providers provides a particularly low level of effective service – when accounting for access and quality of service measures. There is a need for increasingly targeting of financing, improving performance in lagging areas (small and medium-sized cities and rural areas), support the creation and capacity building of specialized operators, target financing to wastewater treatment, improve regulation in the sector, revisit tariff policy and create incentives for the aggregation of small providers.

The following broad recommendations have been made for the water and sanitation sector and are discussed in greater detail in the body of this Note:

- ***Increase performance in lagging regions,*** particularly in small and medium-sized cities and rural areas through greater investment and the promotion of specialized operators.

- ***Implement institutional strengthening and technical assistance programs,*** as a prior condition for accessing financial support, to promote utility modernization and efficient management.

- ***Improve the framework for fiscal transfers*** to subnational governments so as to improve the accountability for transfers earmarked to the water sector.

- ***Strengthen the Ventanilla Unica Program,*** by further consolidating federal financing in the sector under the program, strengthening the subproject review

and vetting process by building in-house capacity, and maintaining ISO 9000 quality certification.

- ***Incentivize improved performance,*** by linking fiscal support to performance improvements.

- ***Improve the performance of demand subsidies in the sector,*** by reforming the targeting and valuation mechanisms that currently apply to cross-subsidies for water and sanitation service.

- ***Rationalize the institutional framework*** at the national level to improve coordination in the sector and mitigate sector fragmentation, ensuring access to finance from utilities. This may include creating incentives for the aggregation of small utilities to achieve greater economies of scale and enhance possibilities for cross-subsidization of poor consumers.

- ***Strengthen the regulatory framework*** for the sector by:

- Adopting a differentiated and phased approach to regulation that groups utilities in three or more size-based clusters and develop appropriate regulatory mechanisms for each case;

- Enforcing mechanisms to ensure the application of tariff regulation and the use of Law 715 transfers; and

- Developing a framework for regulating the quality of service – particularly in smaller towns.

- ***Consider revising technical norms*** to permit use of low-cost alternative technologies.

- ***Expand coverage of wastewater treatment*** and rehabilitate in-operation plants.

Urban transport

The following broad recommendations have been made for the urban transport sector:

- ***Strengthen the framework for urban transport planning and regulation*** to enable cities and municipalities to address the social and economic costs of uncoordinated, over-supplied and congestion-enhancing public transport services. The Administration has frankly diagnosed weaknesses in the transport planning and regulation framework in urban areas of varying sizes. However, efforts to effectively control informal, surplus and aging public transport vehicles through a combination of regulation and enforcement have been slow to take hold. A deeper commitment will be required at the national and municipal levels to effectively rationalize urban route systems and control informal operators.

- ***Reinforce and speed up existing efforts to support alternative modes of transport*** in small towns, strengthen traffic management capacity in medium-sized cities and implement Integrated Mass Transit Systems in larger cities. Again, the policy

framework is clear and solid in terms of outlining a framework for medium-term transportation planning differentiated by city size. The real gap is one of municipal level capacity in terms of ensuring such instruments take hold. Mechanisms to provide technical assistance to municipalities in these areas do exist. However, further effort is required to ensure that they are effectively utilized and targeted.

- ***Analyze and reformulate subsidy policy*** in the urban transport sector to ensure that scarce subsidy resources are going to the poor. The challenges here are considerable given the diverse sources of subsidies and the difficulty of targeting.

References

ACODAL. Estado del Sector de Agua y Saneamiento en Colombia. (Bogotá, 1998).

CEDE, Universidad de Los Andes. 'Estudio Oferta y Demanda de Crédito para Vivienda Social en Colombia Haciendo Énfasis en el Conocimiento de la Demanda Proveniente de Familias del Sector Informal - Borrador'. (Bogotá: 2005a).

CEDE, Universidad de Los Andes. 'Formalidad e Informalidad en Mercados del Suelo y de la Vivienda para los Pobres en Bucaramanga y Cartagena - Borrador'. (Bogotá: 2005b).

Departamento Administrativo Nacional de Estadística (DANE). 'Documentos Técnicos sobre Mercado Laboral: Balance de Mercado Laboral Colombiano, Trecer Trimestre de 2005'. (Bogotá: 2005a).

Departamento Administrativo Nacional de Estadística (DANE). 'Census de Edificaciones'. (Bogotá: septiembre 2005b).

Departamento Administrativo Nacional de Estadística (DANE). 'Boletín de Prensa: Vivienda VIS y No VIS, I Trimestre de 2006'. (Bogotá: 20 de Diciembre 2006).

Departamento Nacional de Planeación (DNP). 'Estimaciones pobreza e indigencia en Colombia en 2005: III trimestre'. (Bogotá: enero 18, 2006).

Departamento Nacional de Planeación (DNP). 'Documento CONEPS 3305: Lineamientos para Optimizar la Política de Desarrollo Urbano'. (Bogotá: 23 de agosto de 2004).

Departamento Nacional de Planeación (DNP). 'Documento CONEPS 3167: Política para Mejorar el Servicio de Transporte Público Urbano de Pasajeros.' (Bogotá: 23 de mayo de 2002).

Departamento Nacional de Planeación (DNP). 'Visión Colombia Segundo Centenario: 2019' (August, 2005).

Gaviria and Velez (2001). 'Who Bears the Burden of Crime in Colombia?'. Discussion Paper, Fedesarollo, Bogotá.

Pizano de Narváez, Eduardo (2005). DEL UPAC A LA UVR: Vivienda en Colombia 1970 - 2005. Impreso de Colombia, Bogotá.

Secretaria de Gobierno de Bogota (2006). 'Boletín Mensual: Seguridad, Convivencia y Justicia'. Vol. 1, Bogotá (2006)

World Bank (2004). Colombia: Recent Economic Developments in Infrastructure (REDI): Balancing Social and Productive Needs for Infrastructure. Washington, D.C.

World Bank (2005a). The Urban Poor in Latin America. Washington, DC.

World Bank (2005b). Country Assistance Strategy Progress Report. Washington, DC.

Afro-Colombian and Indigenous Peoples: Issues, Progress, and Remaining Challenges[120]

Abstract: Significant progress has been made by Colombian authorities and indigenous and Afro-Colombian organizations regarding the legal recognition, rights of, and development strategies for ethnic communities in the country. While this progress is commendable, it has yet to achieve the full potential promised in the 1991 Constitution. Populations that were recognized and promised protection under this historic document remain alarmingly stressed in terms of their economic, social, and cultural conditions: while illiteracy in Colombia is 16 percent, that of the Indigenous and Afro-Colombian populations is 24 percent and 31 percent, respectively, with 14 percent of Afro-Colombian students attending secondary and superior schools compared to a 26 percent national average. The infant mortality rate among indigenous groups is at 63.3 deaths for every 1,000 live births, compared to a national average of 41.3. Furthermore, ethnic communities have not been able to fully exercise control over their land and territories and are severely affected by the conflict that afflicts the country overall, but that is especially intense in many rural areas with concentrations of ethnic peoples. Current legislation for allocating land and resources to indigenous populations is hampered by ineffective functioning implementation mechanisms. In the case of Afro-Colombian communities, the challenge of reducing poverty and exclusion goes beyond those living in traditional communities, and includes the increasing number of Afro-Colombians living in the cities. Increasing the economic and social inclusion of ethnic populations through a range of development programs, supported by institutional and regulatory reforms, would increase the potential for productivity and growth in the country, help preserve the country's rich biodiversity, and assist in consolidating governance at the local, regional and national levels.

[120] This chapter was written by Josefina Stubbs.

Introduction

The Policy Note prepared for the 2002 volume *Colombia: The Economic Foundation of Peace*, included a general diagnosis of the social, economic, cultural, and legal situation of Colombia's ethnic groups. It presented a detailed socioeconomic picture of these populations, their demographic composition, their culture and social organization, their livelihoods, and their geographic location. The Note elaborated recommendations that sought (i) the appreciation and adoption of models of coexistence that value and protect the human rights of these groups; (ii) protection of their social, economic, and cultural rights; and (iii) the conservation and protection of natural resources in the indigenous collective territories and in Afro-Colombian communities. The majority of these recommendations were integrated into the National Development Plan for 2002-2004, titled *Toward a Communitary State.* The Plan recognizes that indigenous peoples, Afro-Colombian, and Roms populations[121] have been historically marginalized and discriminated against, and that they are at a disadvantage compared to the rest of Colombian society.

Despite important progress made during the last four years, many of recommendations in the earlier Note remain relevant. Therefore, this Note will focus on identifying progress made during the last four years, addressing remaining challenges and examining new developments. The Note will focus on four core issues: (i) the recognition and overall management of the indigenous and Afro-Colombian collective and ancestral territories; (ii) natural resource management and environmental risks in indigenous and Afro-Colombian territories; (iii) autonomy and participation by ethnic groups at the local and municipal levels of decisionmaking; and (iv) the social and economic inclusion of the Afro-Colombian population at large. The final section presents policy options for consideration by the Administration.

Background: Colombia's ethnic populations

The Colombian Constitution of 1991 reaffirmed the social, economic, and political rights of all its citizens, including its ethnic groups. Embedded in the Constitution is the reaffirmation that Colombia is a multiethnic society. The country's rich diversity, which includes its people, is one of its most important assets. Since 1991, substantial progress has been made in the legal recognition of much of the indigenous and Afro-Colombian ancestral lands. Colombia ratified the ILO Convention 169 on Indigenous and Tribal Peoples in Independent Countries through Law 21 of 1991 thus creating the conditions for the recognition of indigenous peoples' rights and the allocation of financial and technical resources aimed at reducing poverty and increasing their social and economic inclusion. The country has dedicated tremendous efforts to striking the right balance between including indigenous peoples in core state functioning mechanisms (e.g., decentralization, tax transfers), while respecting their autonomy and the decisionmaking power of their

[121] Recently the government of Colombia recognized the Roms (known as Gypsies) as an ethnic group. Community organizations estimate the Roms population to be between 800 and 5,000 individuals.

communities and local leaders. With respect to Afro-Colombians, who have long been insufficiently recognized within Colombian society and government structures, progress has also been made in the recognition of their collective ancestral territories (see next section). More recently, due to improvements in the collection and analysis of official data, the country has become increasingly aware of the significant size and geographic spread of this population and of its generally disadvantaged conditions. Without a doubt, Colombia has made advances since 1991 on ethnic issues that are unparalleled in the Americas.

Notwithstanding these advances, Colombia's ethnic populations, estimated to be between 8 and 12 percent of the total population, are more likely to be among the poor and extreme poor. Their weak asset base (in terms of effective land rights, physical and human capital, and access to finance) makes them disproportionately more vulnerable to economic shocks. In particular, the violent conflict affecting the country is threatening their lives, livelihoods, assets, and their acquired land rights. Unless steady progress is made in the short and medium term for this important part of the population, it will be impossible to reduce poverty, consolidate diversity, and create sustainable peace in Colombia.

The indigenous population

Data on Colombia's indigenous population remains dispersed and inconsistent. Preliminary information from the 2005 national census indicates a total population of 760,903 individuals belonging to 82 different groups (of which 64 maintain their traditional language[122]), located in 27 departments and 458 municipalities spanning a range of different national ecosystems in the Cordillera Occidental and the Pacific Coast, Amazonia, and in the Cordillera Oriental de los Andes and in Orinoquia. Four departments (Cauca, Guajira, Nariño, and Caldas) hold more than half of the indigenous population which according to the Ministry of Education is very young: 45 percent of the indigenous population is of school age.

The living conditions of indigenous peoples are dismaying: the infant mortality rate at 63[123]. .3 deaths for every 1,000 live births, and the illiteracy rate at 24 percent, are 50 percent higher than the respective national averages. Problems with access to water and sanitation, the incidence of infection diseases, and malnutrition among children and pregnant women are all at above average rates. The challenges are particularly acute in communities whose productive systems and access to public services have been disturbed by conflict.

The Afro-Colombian population

The Afro-Colombian population accounts for one in twelve Colombian citizens, and is almost four times larger than the country's indigenous population. According to the 2003 Quality of Life Survey, the Afro-Colombian population numbers 3.45 million, concentrated mostly in the Pacific Region and the Department of Cauca (68 percent), and in the Caribbean

[122] DNP (2005).
[123] This numbers could change based on the results of the 2005 National Census yet to be provided by the Departamento Administrativo Nacional de Estadisticas- DANE-

and Atlantic Coasts (21.5 percent). The population is predominantly young and urban, and is divided almost equally by gender. It is a young population, with 44 percent of Afro-Colombians below 15 years of age and the youth population (those aged 15 to 24) comprising 19.2 percent of the total population. Two-thirds of the Afro-Colombian population resides in urban areas, although the Afro-Colombian population in the Pacific Coast is predominantly rural (57 percent). This rural Afro-Colombian population, with its traditional way of life and special links to collective territories, together with indigenous peoples living in similar circumstances, are the primary focus of this paper, due to the confounding nexus of armed conflict; colonization and associated illicit drug production; environmental destruction; cultural destruction and forced displacement; and intense poverty, which all call for immediate attention to their plight. This is not to understate the magnitude of the poverty reduction challenges in relation to urban Afro-Colombians (and urban indigenous IDPs or migrants), for whom employment, access to quality public services, and safe housing on titled urban lands are the key priorities, just as for most poor urban residents.

While the gap in access to primary education has been closing rapidly, 31 percent of Afro-Colombians are illiterate, which is almost twice the national average of 16 percent. Moreover, barely 14 percent of Afro-Colombian students attend secondary and superior schools, compared to a 26 percent national average. In terms of health, Afro-Colombians have the highest infant mortality rates and register high percentages of malnutrition; 60 percent of Afro-Colombians in rural areas do not have access to health services. Access to the labor market is of particular concern to Afro-Colombians, as they register a 14 percent unemployment rate. The 67 municipalities that register more than 40 percent their population as being of African descent have lower Municipal Development Index figures[124], indicating higher poverty, more unmet basic needs, and higher dependency on safety net programs and financial transfers.

Progress so far and challenges ahead

Other areas of great concern to Afro-Colombian and indigenous peoples are their ownership, management, and ability to govern their ancestral territories; the management of natural resources; and the wrenching effects of internal displacement. This section explores these issues and also discusses the recommendations stemming from the CONPES 3310, Affirmative Action Policies for the Black or Afro-Colombian Population, developed by the Government in support of the Afro-Colombian population.

Land and territorial rights

Access to land and ancestral territories for Colombia's Afro-descendant and indigenous groups is synonymous with community, individuality, and livelihood. More than just geographic boundaries, the notion of territory involves a complex system of social, economic, environmental, cultural and spiritual interrelations that are embedded with social

[124] This Index is the result of combining social (health, education, public services and unmet basic needs) and financial indicators (tax revenues, per capita expenditure, and dependency on departmental/municipal transfers). See DNP and Ministry of Justice (2005), p. 27.

organization and governance patterns, in keeping with cultural practices. The land is therefore fundamental in shaping and reaffirming communal and individual identities, and is also the primary space in which their livelihoods are generated.

***Advances in titling of* resguardos indigenas.** The 1991 Constitution, reflecting the indigenous notion of territory, defines *resguardos indigenas* as socio-political entities that include: (i) a delimited territory, (ii) a registered communal land title; (iii) one or more communities that identify themselves as indigenous; and (iv) a social organization and governance structure that regulate and manage the territory. In addition to affirming the rights of ethnic groups over ancestral territories, and offering guarantees for a livelihood to the communities, *resguardos* also have a natural resources management function, as they are located in diverse and rich ecosystems.

There are currently 704 *resguardos* and 31.6 million hectares of land recognized in favor of 584,366 indigenous individuals, broken down in the following manner: 648 *resguardos* with a total of 31,103,428 hectares of land benefiting 412,165 indigenous individuals; 55 colonial *resguardos* with 405,703 hectares owned by indigenous communities with a total population of 171,201 persons; and one indigenous reserve legally recognized as belonging to the Wayuu peoples in the Department of Guajira, comprising 5,115 hectares of land. Between the years 2000-2005, 27 new *resguardos*, encompassing 1.3 million hectares of land, were created. INCODER is implementing a program in support of the creation, expansion, and regularization of *resguardos* in different communities.

Despite the country's clear policy regarding the legal recognition of indigenous peoples' lands, a number of problems still remain, including: (i) scattered and inconsistent information about the land and its uses; (ii) colonization and the presence of non-indigenous Colombians; (iii) lack of legal recognition for some *resguardos;* and (iv) the small size of some *resguardos* In addition, unresolved land disputes, poverty, and the violent conflict in the Cauca Region have caused confusion, misunderstandings, and disputes between indigenous communities in this region and the local and national governments. In the absence of solutions to land disputes and more focused poverty reduction programs, conflict in the Cauca will continue. (See Annex 2 for details on land disputes in Cauca).

Advances in the recognition of Afro-Colombian ancestral lands. Following the approval of Law 70 in 1993, which created the framework for the titling of Afro-Colombian territories and the development of *consejos comunitarios,* rural Afro-Colombians are now under a regime similar to that of indigenous peoples with regard to collective land ownership. Mirroring the concept of territory and its definition from the indigenous *resguardos*, black communities were defined by Law 70 to include all the families of Afro-Colombian descent that have their own culture, share a history, and have their own traditions and customs within the land-people relationship, and who reveal and preserve an awareness of identity that distinguishes them from other ethnic groups. As a legal and sociopolitical entity, Afro-Colombian communities are administered by the *Juntas de Consejos Comunitarios*, superior authorities in the territories, whose mandates include: (i) the assignment of land within their territories; (ii) the protection of acquired rights over the territories; (iii) preservation of the

cultural identity of the territory; and (iv) oversight of sustainable use of the natural resources in the territories. During 1996-2005, a total of 5.128.830 hectares were titled, through 149 collective titles benefiting 60,418 families or 318,574 individuals[125]. These territories are distributed in the departments Antioquia, Cauca, Chocó, Nariño, and Risaralda, and in the Valle del Cauca.

Despite the advances that Law 70 has made possible regarding the legal recognition of collective land titles for these communities, key regulations have not been yet drafted, particularly those related to: (i) adequate use, protection, and defense of natural and environmental resources; and (ii) the status of several communities historically situated in land now defined as natural parks, which the Law did not foresee. In addition, planning and implementation of economic and social development plans – or special programs – in support of the Afro-Colombian communities in possession of collective titles need to be completed and funded[126].

The *consejos comunitarios* are a new development for the Afro-Colombian community, as are collective land titling processes, which have required adjustment and learning. In some collective territories, there is a process whereby communities are involved in preparing integrated local management plans for the natural and cultural resources existing in the territories (p*lanes de vida*). This process needs to be consolidated through institutional strengthening and increased coverage, and technical support needs to be provided for cartographic activities and evaluations of the natural and cultural resources existing in the territories.

The presence of illegal armed groups that take refuge in the collective territories and use the population as human shields is an obstacle to governance of the territories by the *Junta de Consejos Comunitarios,* as well as by the State more broadly.

The management of natural resources in collective territories

While collective titling of the indigenous and Afro-Colombian ancestral territories has increased significantly in the past decade, there has not been equal progress in precisely defining the rights, entitlements, and responsibilities of the ethnic communities regarding the use and management of the natural resources in their territories. This lack of public policy definition, together with institutional weaknesses and limited allocation of resources, is having a direct negative impact on the ability of ethnic groups to exercise their collective land rights, or to sustainably use and manage the national ecosystems and preservation their overall integrity. The traditional community governance structures, which according to their legal and institutional frameworks were expected to oversee and administer the collective territories, are being weakened as indigenous and rural Afro-Colombian

[125] In 1994, the World Bank approved a loan for US$39 million to support the Natural Resource Management Program on the Pacific Coast. Major achievements include securing collective title to 2,359,204 hectares, benefiting 497 black communities. The program also supported the establishment and expansion of 56 indigenous reserves, which meant an expansion of 324,288 hectares benefiting indigenous peoples. For further details see Sánchez and Roldan (2002).

[126] Contrary to the indigenous *resguardos*, Afro-Colombian collective territories do not receive direct transfers from the SGP (Sistema General de Participaciones). Law 70, which created the framework for the titling of Afro-Colombian territories and the development of the *consejos comunitarios,* did not include provisions to give the *consejos* similar status as the *resguardos*.

communities suffer the impact of pressures by illegal parties in the conflict on the natural resources in their territories. These problems are not new but are becoming more acute in the collective territories.

The current Administration is aware of the need to:

- define the exact attributes of and guarantees for indigenous peoples and Afro-Colombian communities regarding the ownership, use, and administration of the natural resources (renewable and non-renewable) that exist in their legally recognized collective territories. Out of the 45 protected areas that form the National Parks System, 19 *resguardos* and one indigenous reserve overlap with national parks. There are cases where the parks overlap entirely with the *resguardos*, and in other cases, the overlap is up to 80 percent; and

- resuscitate the program of acquisition of land from the *colonos,* or non-indigenous individuals, who occupy land in legally demarcated territories. If left unattended, the rapid expansion of the colonization process in the indigenous and Afro-Colombian territories will be impossible to contain in the years to come. To date, colonization of national parks and natural reserves by private individual is estimated to be nearly 700,000 hectares of land. Moreover, the colonization coincides with an alarming increase in the cultivation of illicit crops in indigenous and Afro-Colombian territories. In 1999, it was estimated that 17 percent of the country's illicit crops were cultivated in indigenous territories, which makes the need for an effective Government strategy to address illegal colonization and support the ethnic communities in these areas even more urgent[127].

While information about these issues has been widely disseminated within government circles and among local organizations, a lack of political will to resolve them is apparent from the insufficient technical support and the lack of fiscal space being made available to make advances on these urgent priorities.

[127] M. Giugale et al. (2003), p. 797.

Box 1. Unsustainable Practices in Indigenous and Afro-Colombian Territories

Illegal occupation of collective territories and the unsustainable agricultural practices coupled with the negative effects that illicit crops fumigation programs have on water sources and subsistence crops are diminishing livelihoods in indigenous and Afro-Colombian territories. The negative effects of these practices can be also measured in environmental, health and displacement incidence indicators.

Environmental degradation and worsening poverty caused by illicit crops fumigation programs. The contamination of water sources by illicit crops fumigation programs is worsening the economic condition of Colombian ethnic groups by diminishing their livelihoods. The damage done to subsistence crops by contaminated water has a negative effect on food and water sources. Fumigation programs have increased the displacement of communities and families from their lands and territories. As suggested by environmental institutions in Colombia and elsewhere, and as demonstrated by communities in the Putumayo, manual eradication methods, alternative crop substitution, the formation of community park rangers (*guarda bosques comunitarios*) and community agro-industries, the expansion of the green markets, and more active participation in the new world market for carbon sequestration have proven to be more effective, can bring benefits to the communities, and are less damaging to the environment. Based on existing experiences being implemented in several communities, these programs should be scaled up and incentives need to be streamlined.

Illegal occupation of collective territories in Afro-Colombian Communities and extensive agriculture. Twenty of the 55 collective territories in the department of Chocó are located in the municipality of Rio Sucio, in the humid tropical forest of the Bajo Atrato Region. The communities of Curvarado and Jiguamiando, with collective territories of 46,084 and 54,973 hectares respectively, have seen their lands, and in some case their lives, taken by the expansion in the cultivation of the African Oil Palm. According to INCODER in its November 2004 report, 22,022 hectares of collective territorial land in both communities were occupied by private investors involved in Oil Palm and grazing land operations. 1,135 families (2845 persons) have been forcibly displaced from the communities.

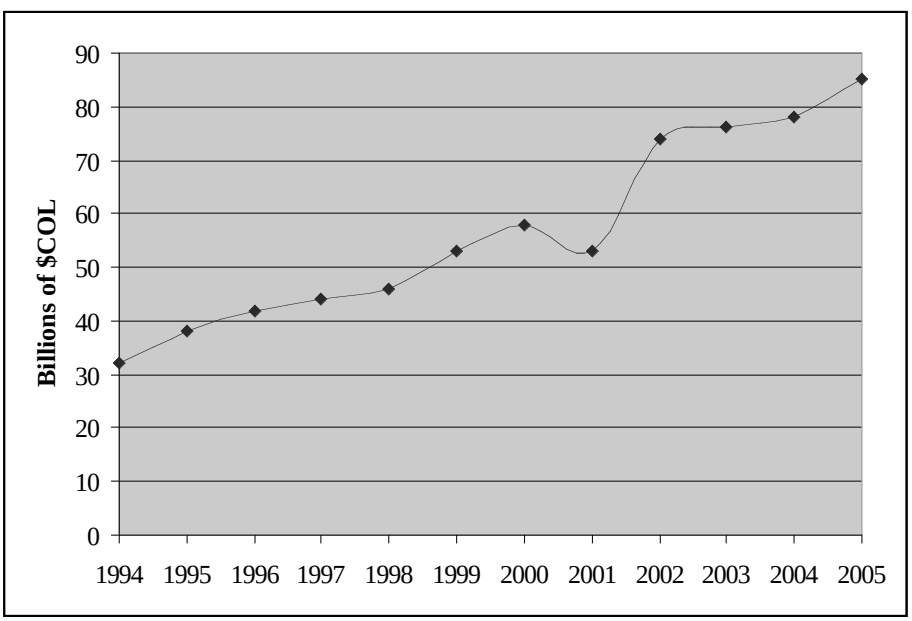
Beside the human tragedy, unsustainable and excessive (and in many instances, illegal) logging and expansive crops such as the African Oil Palm, are tipping the ecosystem equilibrium, increasing deforestation and the loss of genetic diversity. While in other conditions, the African Oil Palm industry can be a source of economic profit and poverty reduction in the region, the national government as well as the private sector should explore existing models for cultivation of the crop that employ strict environmental and social responsibility codes. For instance, Costa Rica adopted a horizontal model of production and management of the African Palm with excellent environmental, social and economic results for the communities involved and the country. Other models, albeit with less successful results, have been implemented in countries like Indonesia.

(For further details, see Fidel Mingorace, F. Minelly, and H.Le Du, *El Cultivo de la Palma Africana en el Chocó: Legalidad Ambiental, Territorial y Derechos Humanos.* 2004).

Autonomy and self-governance of the collective indigenous territories

Transfers. The 1991 Constitution places particular emphasis on democratic participation and the consolidation of municipal decentralization and autonomy. In keeping with these efforts, indigenous *resguardos*, like municipalities, have been included in the National System of Tax Transfers (SGP - *Sistema General de Participación*). Since 1994, a total of 679 billion pesos has been transferred to the *resguardos,* including 313 billion pesos during 2002-2005 alone (see figure 1) The transfers are aimed at meeting the population's basic needs for health, education, rural development, and housing. The transfers have contributed to improved living conditions and quality of life in many communities, although the gap in living standards and public services, compared to the national average, remains significant, and further progress is hampered by a number of obstacles, including institutional obstacles. These include (i) very weak capacity among indigenous leaders to prepare investment plans and proposals and to control their implementation; (ii) the absence of systematic analysis and studies of resources and opportunities that could help communities prepare more effective development plans; and (iii) the absence of effective control of the community over the decisions of their leaders and the use of their resources. Indeed, the National Planning Department (DNP), as a regulatory institution responsible for the transfer, has made an important contribution by preparing guidelines for the administration and use of the resources transferred to the *resguardos*.

Figure 1. Tax Transfers to Indigenous **Resguardos,** *1994-2005*



Source: *Roque Roldan with information from DNP, Arango and Sánchez (op.cit.) and Presidencia de la República.December, 2005*

With the aim of increasing transparency and accountability in the use of the transfers to municipalities and *resguardos,* Law 715 was drafted and approved in 2001; however, implementation mechanisms have not been designed, so the Law is not being applied. Further progress in this regard is crucial. At the same time, the competent institutions (DNP

and the National Directorate of Indigenous Affairs), together with indigenous organizations should design and implement an intensive institutional capacity building program among municipal and indigenous authorities and members of the *resguardos* regarding the legal and effective use of transfers.

The territorial indigenous entities (ETIs). Of even greater concern is the lack of progress in creating the conditions whereby the Territorial Indigenous Entities (ETIs) can be created, as provided in the 1991 Constitution. In their absence, the *resguardos* continue receiving the transfers via the municipalities, which adds an extra burden to the system and the indigenous communities, particularly since collecting the transfers is cumbersome in the case of *resguardos* whose boundaries include one or more municipalities. Moreover, the processing and due diligence necessary to obtain these resources is fragmented and costly, and can affect accountability. The significant efforts by the Administration (through the DNP and the Direction of Ethnic Affairs), and by indigenous groups (through the *Organización Nacional Indígena Colombiana* - ONIC), to agree on the form of the ETIs and the procedures to implement them, may encounter practical and political obstacles, especially at the municipal level, due to resource and budget issues. In addition, from the practical point of view there exist differences between indigenous communities and the government concerning the size and viability of the ETIs and the creation of systems with differentiated procedures for smaller and larger entities. Systematic research of technically viable options along with political efforts must be dedicated to identify and overcome current and potential obstacles and allow the implementation of the ETIs.

The Administradoras Indígenas de Salud. The general system of social security in Colombia includes the provision of health services to the ethnic populations, and their inclusion in the different health programs and plans implemented by government. In addition, indigenous authorities can create and manage their own health administration entities, known as *Administradoras Indigenas de Salud*, as private health provider entities (EPS)[128]. To date, six indigenous EPSs are in operation, with a total of 644,986 people receiving 133.6 billion Colombian pesos. Much of this money goes to treat conditions associated with poverty (infant and maternal mortality, diarrhea, and a high incidence of malnutrition affecting children and pregnant women). The Administration is aware of the limitations of the current system, and corrective measures and instruments are being defined through the drafting of a new regulatory framework to Law 691, which regulates the participation of the ethnic groups in the general social security system. However, at the time this Note was prepared, the drafting of this framework had not been completed.

The Centros Regionales de Educación Superior (CERES). Colombia has made progress in adapting education material to the culture and language of indigenous peoples, and in training indigenous professionals to engage in indigenous community education projects in primary and secondary schools. Reports from the Ministry of Education[129] indicate that 87

[128] Health support under the social security system is administered by public and private entities through five different health plans. They are: (i) *Plan Obligatorio de Salud*; (ii) *Plan subsidiado*, (iii) *Plan de Atención Básica;* (iv) *Plan de Atención Inicial de Urgencias*; and (v) *Atención en Accidente de Transito y Eventos Catastróficos.* The private entities, or *Entidades Prestadoras de Salud* – EPSs – administer and manage individual affiliations to the different plans.

[129] See, Roque Roldan, 2005a.

percent of the indigenous school age population (383,498 persons) is covered. The education program known as ethno-education includes efforts to increase indigenous people's access to secondary education and improve the training of teachers. The *Centros Regionales de Educacion Superior* (CERES) have played a key role in these endeavors. During the last years of the current administration, capacity for 18,041 new students was created; and although data on the allocation of financial resources for the years 2002-2003 were not available, in the period 2004-2005 the budget allocated to the program reached 17.1 billion pesos, an amount considerably higher than in previous years[130]. However, the adaptation of the curricula for indigenous schools, as well as the quality and standards of the education offered, is of concern to teachers and government authorities.

Afro-Colombians: toward implementation of a proposed affirmative action policy

Awareness of the size of the Afro-Colombian population beyond the traditional ancestral territories is very recent. Current official data on the socio-economic conditions of Afro-Colombians reveal that: (i) the Afro-Colombian population is much larger than previously believed; and (ii) the population it is not solely concentrated in what are known as ancestral collective territories. Indeed only 302,504 persons live in collective territories, while the remaining 3.1 million or so live in poor conditions in other rural areas, in secondary cities, or increasingly, in Colombia's larger cities – Bogotá, Cali, Medellin, and Barranquilla. This new data has provided a clearer picture of the issues affecting this rather large population, and provided an opportunity to develop institutional and public policy solutions that assist in poverty reduction and bring about the social inclusion of Afro-Colombians.

In September 2004, the Government approved an Affirmative Action Policy for the Afro-Colombian Population (CONPES 3310), which aimed to direct public policies towards Afro-Colombian communities, increase the coverage of national programs, implement short-term affirmative action policies and define long-term initiatives, improve data collection mechanisms, and finally, follow up the recommendations of the National Development Plan and the 2002 CONPES 3169. While recognizing the important advances in data collection and in closing inequality gaps in primary education and health, CONPES 3310 also recognized that Afro-Colombians are still at a disadvantage in their access to quality secondary and university education; employment and physical, financial, and technological infrastructure. CONPES 3310 also highlighted the need to strengthen the voice and participation of Afro-Colombian communities.

Experiences with affirmative action programs designed to increase the inclusion of people of African descent, in Brazil, South Africa, and the United States provide relevant lessons for Colombia. In breaking the cycle of exclusion and racial discrimination, two interrelated dimensions are needed. The first is to strengthen the voice of NGOs, and second, to define and implement relevant policies and programs to combat poverty income inequality, and the poor living conditions of Afro-Colombian communities and to directly address racial inequalities[131].

---

[130] See Arango and Sánchez (2004), p. 79; Pág. 79; and Roldan (2005).
[131] Do Nascemento (2001), p. 173.

In the United States, a combination of these two dimensions involved major health care provisions attached to social security specifically for the poor; aid to elementary and secondary education with provision for additional grants for college students; model cities funds for community development projects; aid to urban mass transit systems; support for the arts and humanities; and environmental protection laws. In South Africa, the faculty of engineering at the University of Cape Town has developed a model of enabling young people from disadvantaged background to succeed, with remarkable results. The number of male Black graduates from secondary schools increased from 9 in 1988 to 96 in 1998; and the number of female African graduates increased in the same period from 10 to 48. Three principles were behind the success: (i) creating a climate of success – placement of students in positions in which they can succeed and feel challenged to incrementally move to more complex levels of performance; (ii) attending to the requirements of individuals with different learning abilities and strategies[132]; and (iii) affirming and rewarding good performance as a way to enhance excellence. Equally important is the university's Admissions Preparation Courses for Black and Poor People, implemented in several states and municipalities in Brazil. The goal of that program is to increase access of young Afro-Brazilians and poor people to higher education. Some universities have opened subsidized admissions for students from these courses.

In the case of Colombia, it is necessary to find effective mechanisms, including technical and financial assistance to support the implementation of the CONPES 3310 and its recommendations. The World Bank is aware of the efforts being dedicated by the Colombian government to formulate an integrated long term development plan in favor of the Afro-Colombian population. The plan seeks to propose actions in the areas of institutional strengthening and the creation of new social and economic opportunities for rural and urban afro-Colombian populations. Conceived as a rolling plan actions proposed would cover through to the year 2019. In line with the determination of the government to reduce poverty and increase opportunities for these populations, particular attention in the preparation of such plan should be paid to the following areas:

Affirmative action policies across government institutions that support better coverage, access, and quality of primary and superior education, through:

- increasing the coverage of primary and secondary education in Antioquia, Atlántico, Bolivar, Cauca, Chocó, Cordoba, La Guajira, Magdalena, Nariño, Sucre, Valle, Cesar, Putumayo and San Andres in order to achieve the goal of almost half a million new student placements;

- strengthening the Educational Credit Fund (ICETEX) through the provision of grants to Afro-Colombian students with outstanding academic records who come from low-income families;

[132] For further information, see the University of Cape Town's Deep Foundation Program. http://www.educause.edu/ir/library/pdf/ffp9806.pdf.

- improving the quality of education in municipalities with a predominantly Afro-Colombian population, where quality is the lowest across the country, with 89 percent of the schools rated low and inferior in terms of school and students' performance in national exams[133]. This will require teacher training, improved teacher attendance and incentives, along with greater access to didactic materials and improved school facilities. Setting up a technology-based innovation program in coordination with one or several universities/colleagues from countries such as Brazil, South Africa, or the United States should be explored; and revision of the *Sistema Integral de Informacion de la Proteccion Social* to include variables related to race and ethnicity, as a mean of monitoring the delivery of social protection programs in Afro-descendant communities; and as needed, design and implement programs especially aimed at the Afro-Colombian population.

Poverty alleviation and consolidation of management in collective territories, through:

- support for the design and implementation of local development and environmental management plans, and for the creation of environmentally sound (*green initiatives*) small enterprises that link local producers with the international fair trade market;

- state enforcement of legal property rights on collective lands, and support for linkages of community-led natural resource management initiatives with international sources of financing, such as carbon offsets; and

- protection of patrimonial assets of displaced Afro-Colombian populations.

Consolidation of progress made in data collection through official population information gathering instruments (Household Surveys, QLS, census, through:

- inclusion of community members in gathering and vetting survey data in ethnic communities; standardization of ethnicity-related data gathering throughout the full range of data survey instruments and public service provisions, as well as in impact evaluations by public agencies, and feeding the data back into policy formulation and adaptation of public programs.

In addition to the recommendations found in CONPES, there is a need to undertake further analytical work that reflects the inter-relationship between discrimination and social and economic exclusion. Notwithstanding the negative effects of discrimination, as presented in CONPES 3310 and voiced by Afro-Colombian civil society groups and research institutions, there is little understanding of the dynamics between discrimination and access to social and economic opportunities. Studies in other countries in the region, including Bolivia, Ecuador, Peru, Guatemala, and Mexico have revealed sharp differences in income levels

[133] See DNP and Ministry of Justice (2005), p. 27.

between indigenous and non-indigenous populations, even after controlling for differences in observable variables such as education. The earnings differential that is not accounted for by observable variables ranges from 27 percent in Bolivia to 58 percent in Peru, and while racism is not the only non-observable factor, a significant share of the non-explained variation in earnings by ethnicity may be attributable to discrimination[134].

Studies that focus more precisely on the impact of discrimination on employment opportunities for Afro-descendents have been conducted in the United States. One study[135] found that when fake curriculum vitae for candidates with identical experience and education, were sent in response to job advertisements in newspapers, candidates with names that are common in the majority population were 50 percent more likely to receive calls from the hiring companies than candidates with names that are common only in the Afro-American community. Similar findings have emerged in studies of access to housing and credit. Studies along these lines could be adapted to the Colombian context and conducted to explore the impact of racial and ethnic discrimination on economic opportunities for ethnic minorities, as a basis for policy measures to address discrimination.

Supporting internally displaced persons (IDPs)

A separate chapter in this volume analyzes the situation of the internally displaced population in Colombia in greater detail. However, given the disproportionately large impact of internal displacement on the country's ethnic population, some key issues are summarized here:

- The intensity of the conflict in areas with concentrations of ethnic populations, due in part to the interest of irregular forces in the rich forests in the collective territories of indigenous and Afro-Colombian communities, is increasing the pressure on ethnic populations, threatening their rights, livelihoods, and traditional cultures.

- The well-known resilience of traditional ethnic populations in the face of external events – which has enabled them to survive for centuries – is being weakened by the intensity of the violence perpetrated against their communities by the actors involved in the conflict. According to CODHES (Consultoria de Derechos Humanos y Desplazamiento)[136] in 2002 Afro-Colombians represented 33 percent of the total population displaced that year; that same year, 12,649 indigenous individuals were displaced – representing 5 percent of the total population displaced for the year and 1.75 percent of the total indigenous population. UNHCR (United Nations High Commissioner for Refugees) recently reported that Afro-Colombians represent 11 percent of the total number of displaced people in the country, whereas indigenous people represent 8 percent[137].

---

[134] See Hall and Patrinos (2006).
[135] Bertrand and Mullainathan (2004).
[136] Boletín de Consultoria para Derechos Humanos y el Desplazamiento (April 2003). The data from this source suggest that ethnic groups are almost four times more likely to be internally displaced than the rest of the population.
[137] See: UNHCR Briefing Note, " Mission Confirms new Displacements in Chocó Province". Feb. 2005. Available on line at http://www.unhcr.org/cgi-bin/texis/vtx/news/opendoc.htm?tbl=NEWS&id=4215cf954

- Forced displacement is a traumatic process with tremendous social, economic, and psychological consequences for individuals and communities. It has a generally destabilizing effect at both the expelling and the receiving ends. Women in focus groups have compellingly described the impact of the conflict on their indigenous and Afro-Colombian communities[138]. The conflict and resulting forced displacement (i) breaks community ties and destabilizes the communities' internal governance mechanisms; (ii) disrupts the economic life and the forms of traditional work practiced by the communities; (iii) destroys traditional ways of managing nature, the use of natural resources, and the defense of the ecosystems; (iv) degrades the quality of life for people and communities; and (v) causes the loss and deterioration of the cultural identity. There are differences in the patterns of displacement between Afro-Colombian and indigenous communities, and their reactions also are markedly different, as demonstrated of the variety of strategies and skills the two groups use to adapt to the changing environment (see table in Annex 3).

- It is essential to protect the patrimonial assets of communities that leave behind their lands, their houses, their social networks, and their livelihoods. It is also essential that displaced indigenous and Afro-Colombian families and individuals are adequately informed about how to register for assistance, and where to get that assistance, and that they are able to obtain services that take into account their cultural needs. A first point of contact for ethnic IDPs should include culturally sensitive local organizations and representatives of those ethnic groups, to ease the transition into urban areas and build on any ethnic social capital networks that may be present.

Recommendations

Colombia has made considerable progress in recognizing the rights and needs of its ethnic groups. As discussed in this Note, important progress has been made in the demarcation, titling, and expansion of the collective lands and territories of indigenous peoples and Afro-Colombians in rural areas. Nevertheless, a number of pressing issues remain to be addressed. There is a nexus of challenges of major concern to the State that come together in indigenous and Afro-Colombian collective territories. These issues relate to violent conflict by illegal armed forces; illegal colonization of ancestral lands and associated illicit drug production; environmental destruction due to logging, production of illegal crops and fumigation, as well as the monoculture of African palm. In addition, the cultural destruction and forced displacement of ethnic peoples contributes to the intense economic poverty of culturally rich populations that are the stewards of some of Colombia's most pristine areas of biodiversity. All of these are powerful considerations that call for urgent attention to the plight of Colombia's Afro-Colombian and indigenous peoples. The policy options presented below focus on those issues on which progress is most urgently needed in the coming years[139].

---

[138] World Bank (2005), pp. 58-60.
[139] These policy options should be seen as complementary to those presented in other previous Policy Notes, especially those on Conflict, Violence, and Sustainable Peace.

Objective	Recommended Short-Term Actions	Recommended Medium and Long-Term Actions
1. Strengthen governance in indigenous *resguardos* and Afro-Colombian collective territories	Define the technical, social and economic roles and functioning mechanisms of the *Entidades Territoriales Indigenas* (*ETIs).*	
	Define the exact attributions and guarantees for indigenous peoples and Afro-Colombian communities regarding the ownership, use and administration of the natural resources (renewable and non-renewable) that exist in their legally recognized collective territories	Development of the legal and regulatory norms that can make the *Entidades Territoriales Indigenas- ETIs-* operational, so that they can fulfill their identified roles.
	Develop a consistent database of cartographic and technical information on: land purchased by the state to create indigenous *resguardos*; actual land transfer amounts; and use of land.	Resuscitate the program of acquisition of land from the *colonos* or non-indigenous individuals, who occupy land in legally demarcated territories
	Issue the by-laws/regulations of Law 715 on issues related to budgeting, management and control of resources assigned to '*resguardos*'.	
	Design and implement an intense institutional capacity building program among municipal, indigenous authorities and members of the *resguardos* regarding the correct, effective and legal use of the transfers.	Enact the '*Ley Organica de Ordenamiento Territorial (LOOT)* and define principles for the assignment of resources to ETIs.
2. Enhance tax transfers to *resguardos*	Support the completion and implementation of local development initiatives (*Planes de Vida*) that consider, as a guiding basis, the management of natural resources in collective territories and *resguardos* as a means of increasing livelihoods	The DNP and the National Direction of Indigenous Affairs should develop public and transparent procedures for the management and investment of tax transfers, including social accountability mechanisms.
	Hold institutions responsible for enforcing collective land rights, and name and shame and sanction violators of collective ethnic land rights.	Perform periodic evaluation of investments, programs finances, and impact on the ground of tax transfers.
	Support alternative crop substitution policies and practices in collective ethnic territories. Tap in international knowledge and experiences.	

Objective	Recommended Short-Term Actions	Recommended Medium and Long-Term Actions
3. Environmental and Natural resources management		Stimulate sustainable livelihoods activities such as green markets, carbon capture initiatives and crop substitution.
	Under the leadership of DNP put in effect a multi-agency coordination mechanism, technical assistance and financial means towards the implementation of CONPES 3310. Increase ICETEX's resources availability and operational capacity, so that it can effectively provide support to low income/outstanding academic records Afro-Colombian students. In cooperation with foreign colleagues/universities, launch a "student excellence" technology based innovation program for secondary/university level students. Revise the *Sistema Integral de Informacion de la Proteccion Social* to include variables related to race and ethnicity as a mean of monitoring the delivery of social protection programs, and their evolution, in Afro-descendant communities. And as needed, design and implement programs specially aimed at the Afro-Colombian population. Include a question on race and ethnicity in the forms and documents used by the *Sistema Único de Registro* (SUR) to track displaced people.	Inter-institutional coordination to consolidate rights acquired by Afro-Colombian communities in the collective territories Achieve the goal of 476,026 new student placements through increase coverage of education (primary and secondary) in Antioquia, Atlántico, Bolivar, Cauca, Chocó, Cordoba, La Guajira, Magdalena, Nariño, Sucre, Valle, Cesar, Putumayo and San Andres.
Consolidate progress made in collecting official data on living conditions of ethnic groups (afros and indigenous)	Maintain the questions on race and ethnicity in the Quality of Life Survey, household surveys and other official data collection instruments.	Draw on the race and ethnicity data that are gathered to improve targeting and results monitoring of public poverty-reduction programs, e.g. social protection, health, education and basic infrastructure support, so as to reduce social exclusion.

Objective	Recommended Short-Term Actions	Recommended Medium and Long-Term Actions
	Maintain the dialogue and participation of afro and indigenous community members in gathering and vetting survey data in ethnic communities; standardization of ethnicity-related data gathering throughout the full range of data survey instruments and public service provisions, as well as in impact evaluations by public agencies, and feeding the data back into policy formulation and adaptation of public programs.	Support the creation of a quality of life index that reflects the reality, aspirations and conceptions of well being among indigenous peoples, so as to improve the cultural relevance of public programs and conserve the country's cultural patrimony. The conceptual framework, methodologies and tool developed by the DNP and the National Human Development Program can be adapted for this purpose.
Increase attention and expand the support to internally displaced indigenous and Afro-Colombian families, communities and individuals.	Work in coordination with indigenous and Afro-Colombian community organizations to provide overall support in the implementation, monitoring and evaluation of programs for displaced people at local, municipal and departmental levels.	Support the publication of disaggregated reports on the impacts of programs for the displaced on ethnic populations by the institutional members of the SNAIPD. Strengthen coordination between the SNAIPD and the *Dirección de Etnias* (Ministry of Interior) and their outreach for protection and support to internally displaced ethnic populations.

References

Arango, Raúl, and Enrique Sánchez. 2004. Los Pueblos Indígenas de Colombia en el Umbral del Nuevo Milenio. Bogota, Colombia: DNP.

Bertrand, Marianne and Sendhil Mullainathan. "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." American Economic Review, 2004, vol. 94, issue 4, pages 991-1013.

CODHES. 2003. "Boletín de Consultoría para Derechos Humanos y el Desplazamiento" No. 44 (April). Bogota, Colombia: CODHES.

DNP. 2002. Plan Nacional de Desarrollo 2002-2006. Hacia un Estado Comunitario. Departamento Nacional de Planeacion. Bogota, Colombia: DNP.

_____. 2005. Consejo Comunal de Gobierno para las Comunidades Indígenas. Informe del Departamento Nacional de Planeación. Bogota, Colombia: DNP.

_____. 2005. Metas y Priorización de Recursos Presupuestales para Atender a la Población Desplazada por la Violencia en Colombia. Bogota, Colombia: DNP.

DNP and Ministerio de Justicia. 2005. Política de Acción Afirmativa para la Población Negra o Afro-Colombiana. Bogota, Colombia: DNP and Ministerio de Justicia.

DANE. 2003. Quality of Life Survey. Bogota, Colombia: DANE.

Do Nascemento, Abdias, Dance of Deception: Race Relations in Brazil. In: Beyond Racism, Ed. Hamilton (London, UK, 2001) 173.

Giugale, Marcelo, O. Lafourcarde, and Connie Luff, eds. 2003. Colombia: The Economic Foundation of Peace. Washington, D.C.: The World Bank.

Hall, Gillette and Harry Patrinos (Eds). 2006. Indigenous Peoples, Poverty and Human Development in Latin America. Palgrave Macmillan. UK.

Hamilton V. Charles et al, (eds). 2001. Beyond Racism. Race and Inequality in Brazil, South Africa and the United States. Lynne Rienner Publishers. London, UK

Roldan, Roque. 2005a. Consejo Comunal de Gobiernos de Comunidades Indígenas. Septiembre, 2005: Informe del ministerio de Educación Nacional y Documento de la Presidencia de la Republica " Minorías' – Población Indígena Colombiana- Inversión Social. In Roldán, paper commissioned. Unpublished, 2005.

_____. 2005b. "Elementos de Información y Reflexión para la Elaboración, por el Banco Mundial, de una Nota Útil en su Comunicación con el Próximo Gobierno Colombiano, para la Definición de Políticas y Acciones con los Grupos Étnicos del País." Unpublished.

Sánchez, Enrique, and Roque Roldan. 2002. Titulación de Territorios Comunales Afro-Colombianos e Indígenas Costa Pacifica de Colombia. Washington, D.C.: The World Bank.

The World Bank. 2005. The Gap Matters: Poverty and Well Being of Afro-Colombians and Indigenous Peoples. Washington, DC: The World Bank.

UNHCR. 2005. Briefing Note:" Mission Confirms new Displacements in Chocó Province". Available on line at http://www.unhcr.org/cgi-bin/texis/vtx/news/opendoc.htm?tbl=NEWS&id=4215cf954

Annex 1. Indigenous Resguardos, *Land Purchased and Tax Transfers*

Table A1.1. Indigenous Resguardos *by Department, Area and Total Population (including Colonial* Resguardos *and Carraipía (Guajira) Reservation)*

Department	No. of Resguardos	Area (Ha.)	Population
Amazonas	21	9.209.244	21.930
Antioquia	42	343.311	10.988
Arauca	26	128.171	1.926
Boyacá	1	220.275	3.582
Caldas	4	5.820	20.861
Caquetá	42	679.628	4.003
Casanare	8	148.477	3.424
Cauca	47	181.967	46.749
Cesar	8	58.767	7.177
Chocó	116	1.271.570	23.119
Córdoba	3	117.932	17.372
Guainía	28	7.129.244	9.836
Guajira	20	1.083.906	101.466
Guaviare	22	1.892.207	4.027
Huila	14	6.340	4.815
Magdalena	3	577.546	16.678
Meta	18	200.559	3.755
Nariño	45	361.734	36.380
Norte de Sder.	2	122.200	1.433
Putumayo	51	182.327	9.704
Risaralda	5	28.079	8.345
Tolima	68	23.142	16.884
Valle	21	33.625	5.608
Vaupés	2	3.639.925	12.935
Vichada	31	3.557.432	19.168
Resguardos Coloniales	55	405.743	171.201
Reserva de Carraipía (Guajira)	1	5.515	1000
Totales	**704**	**31.614.686**	**584.366**

Notas: 1) During 2002 - 2005, INCODER created and expanded 121 resguardos, with a total area of 1,290,087 hectares, benefiting 20,334 indigenous families. Similarly, 5,794 hectares of land were purchased for 1,663 families, for a total cost of 18,935 million pesos. During 2005, INCODER invested an additional 5,800 million pesos for creating, extending and clearing titles for resguardos, for a total investment of 24,735 million pesos during 2002-2005.
2) Population data are derived from INCORA and INCODER, without DANE's adjustments related to transfers.
Source: Roque Roldán with information from Incoder.

Annex 2. The Cauca: Land Disputes, Poverty, and Conflict

Approximately 24 percent of Colombia's indigenous population resides in the department of Cauca; at 15 percent, or 190,069 people, the Cauca has a significant indigenous presence. Lack of clear and precise registry of indigenous lands is a cause for confusion, misunderstanding and conflict between indigenous communities in this region and the government. Added to the mix of problems are the high poverty levels present in the department and the presence of armed groups. In asserting its political and cultural importance, the indigenous movement in the region continues to respond to these problems by organizing massive marches.

Lack of reliable information on indigenous land. Information on indigenous land tenure in the Cauca is inconsistent:

- The DANE and DNP, in a report by Arango and Sánchez, state that there are three land tenure situations in the 530,150 hectares of indigenous land in the Cauca: (i) there 74 *resguardos* encompassing 172,019 hectares and in the possession of 172,019 people; (ii) approximately 18,050 indigenous individuals live outside the *resguardos* either in urban areas or in their own lands; and (iii) 18,027 hectares of land are occupied by indigenous peoples but are not considered *resguardos* – these could be, according to Arango and Sánchez, *Comunidades Civiles de Tierras* which were formed on dissolved resguardos and continue to have a collective character.

- The Ministry of the Interior and Justice, using figures from an INCODER report, stated that the indigenous lands in the Cauca covered 778,615 hectares.

- The latest INCODER report (completed in December 2005), states that there are only 47 *resguardos* with a population of 46,749 persons and encompassing an area of 181,967 hectares.

The lack of a clear database of land information can be attributed to the fact that several government agencies, as well as nongovernmental agencies mandated by the government, have been responsible for the purchase of lands for collective titling. INCODER from 2002 to 2005 purchased 1,426 hectares of land worth 5.3 billion pesos. The Nasakiwe Corporation, created in 1994 in response to the Páez River catastrophe, purchased 8,973 hectares of land in order to support affected families between 1994 and 2005. As a result of the Hacienda El Nilo massacre, the government of Colombia and the Indigenous Regional Council of Cauca (CRIC) agreed to purchase 15,663 hectares of land and grant these to indigenous communities, of which 9,047 have been purchased. According to the figures listed above, a total of 19,446 hectares of land have been purchased in support of indigenous communities, but only fragmentary information is available to support this (see table 1). The unclear status of the information suggests the need for the formation of a working group comprising the above agencies, together with indigenous organizations and land registries to clarify the data and develop a unified approach for maintaining the accuracy of the data.

Coupled with problems in the data, are claims that are coming from indigenous communities regarding territories that remain without legal recognition, *resguardos* that are

too small or too large and therefore impinge upon other lands, colonization, and land where agricultural production – and therefore the community's subsistence – is unsustainable.

Table A2.1. Land Purchased for Indigenous Communities in the Cauca (1992-2005)

Program	Total area (Ha.) programmed	Area Purchased (Ha.)	Total Cost	Area Remaining (Ha.)	Period
Hacienda Nilo (Caloto)	16.663	9.047	No data	6.615	1992-2005
Páez River catastrophe	No data	8.973	No data	No data	1996-2005
Emergency declaration by the CRIC	No data	1.426	5.276.826	No data	2002-2005
TOTAL	**No data**	**19.446**	**No data**	**No data**	**1992-2005**

Table A2.2. Tax Transfers to Indigenous **Resguardos** *in the Cauca (1994-2005)*

Year	Amount
1994	9,625,067
1995	10,157,794
1996	12,083,474
1997	12,591,371
1998	13,466,539
1999	14,832,483
2000	16,094,339
2001	16,925,158
2002	18,710,738
2003	18,597,712
2004	19,228,688
2005	20,804,775
Total	183,118,139

Source: Roque Roldán with information from the DNP. December (2005).

Poverty in the Cauca: A total of 183 million pesos in tax transfers were made to indigenous *resguardos* in the Cauca during 1994-2005 to address the population's basic needs such as health, education, rural development and housing (see table 2). Notwithstanding the steady increase in tax transfers, there continue to be pronounced poverty levels in the indigenous communities in Cauca. With the exception of some work that has been done by indigenous communities in the north, center, and western parts of the region, the challenge of poverty in indigenous communities in the Cauca has received insufficient attention.

The presence of armed groups. Added to the mix of problems is the presence of armed groups, especially the presence of groups that have attempted to obtain support from the indigenous communities in the department. The indigenous movement in the Cauca has responded to this problem in the same way that is responds to the problems that arise with government, by organizing marches. These actions are designed to: (i) reassert traditional leadership roles in the indigenous communities as opposed to the roles that the armed groups wish to impose upon them; (ii) nullify claims that the indigenous groups are cooperating with the government; and (iii) afford a certain level of respect and recognition for the indigenous movement by the armed groups. However, a permanent solution will require support from the State, as suggested in the Recommendations section of this Policy Note.

Recently, the government of Colombia agreed with two Indigenous organizations in the Cauca Region: (the Consejo Regional Indigena del Cauca- CRIC- and Autoridades Indigenas de Colombia- AICO-) the formation of a negotiation table which will define steps *(Hoja de Ruta) and is expected to help* in finding solutions to the problems of land in the region faced by indigenous, Afro-Colombian population and other small-scale land holders.

Annex 3. Displacement of Ethnic Groups: Patterm of Behavior

Displacement of Ethnic Groups	
Indigenous population	*African-Colombian population*
• seeks to return to their territory of origin • Seeks other indigenous communities. Their displacement is generally from rural zones to rural zones • Has serious problems in adapting culturally in the urban zones • Migrates with the entire family, • The indigenous displacement is massive and temporary • Direct violence is the main reason for the displacement. • The indigenous population tends to resist outside pressure more. • The mobility in space has resulted in the indigenous being less vulnerable when for reasons of Force Majeure they have to move to refuge sites • Seeks relatives in other communities of the zone	• The probability of returning to the place of origin is less. • Moves by stages seeking large cities. Their migration generally takes placed from rural zones to urban zones. • Are more adept at adapting and becoming integrated to urban life • The displacement is worsened as a result of the exclusion due to racism for phenotypical and cultural reasons. • The displacement takes place first with some members of the family, wherein the wife is very important The displacement is generally drop-by-drop and seeks to settle down permanently. • The displacement does not only occur for reasons associated to violence, but also for conditions of poverty and the search for opportunities. Occasionally, it is difficult to differentiate when it involves forced or economic displacement. • The black population is more prone to conditions of terror. They are more susceptible to economic blockages, which results in a large displacement • Black communities do not have a cultural tradition of migration as a group, which makes them vulnerable faced with a forced displacement • Seeks relatives and same age group in cities.

Source: *World Bank (2005).*

Strengthening the Foundations for Competitiveness[140]

Abstract: To achieve a higher standard of living for its population, and reduce the share of its population in poverty – over 50 percent – Colombia will have to grow faster. While no magic formula can guarantee faster and sustained economic growth, recent research provides valuable answers on how investment and productivity contribute to growth and how the business environment is key in determining the size of both contributions. The Administration is undertaking substantial efforts aimed at improving the investment climate in the country. These efforts, however, remain fragmented. In order to improve its investment climate, Colombia will have to address important constraints such as regulatory uncertainty; macroeconomic instability; corruption; inadequate infrastructure; inefficient bureaucracy; lack of access to financing; high burden of taxation; crime; informality; and weaknesses in the national quality system.

[140] This chapter was written by Keta Ruiz, Jose Luis Guasch and Jose Guilherme Reis with the collaboration of Leonid Koryukin.

Introduction

The need for faster growth

To achieve a higher standard of living for its population, and reduce the share of its population in poverty—over 50 percent—Colombia will have to grow faster. The emerging-market countries that have successfully reduced poverty (mainly in East and South Asia) have only done so with high rates of growth. While no magic formula can guarantee faster and sustained economic growth, recent research provides valuable answers on how investment and productivity contribute to growth and how the business environment is key in determining the size of both contributions[141]. This research, recent analytical work, such as the Colombia Country Economic Memorandum (CEM), the Colombia Business Productivity and Efficiency DPL, and the Doing Business and additional analysis based on various surveys, including the ones produced by the World Economic Forum (WEF) and the World Bank, suggests that investment climate constraints most important for country's competitiveness include:

- Economic and regulatory policy uncertainty, including taxation
- Corruption

[141] To help understand why some countries grow faster than others, growth can be decomposed into the growth of human capital, physical capital, and total factor productivity (TFP), the contribution to output beyond those made by labor and capital. Multi-country analysis results show that TFP explains between 45 and 90 percent of the differences in growth among countries. Although TFP was assumed to encompass technological change, recent research has emphasized that TFP not only encompasses differences in technology, but also the broader environment in which firms operate (for example, property rights, and institutions, among other factors—what is also known as the business environment or investment climate) (World Bank 2005a).

- Inadequate physical infrastructure and high logistics costs
- Inefficient bureaucracy (red tape)
- Lack of access to financing
- Crime
- Informality and unfair competition
- Relatively weak national quality system

Efforts toward an improved investment climate

The Administration is undertaking substantial efforts aimed at improving the investment climate in the country. These efforts, however, remain fragmented. Some concerns related to *policy uncertainty* have been recently addressed in the new "Legal Stability Law" (July 2005) which seeks to address investor concerns about legal and tax instability. Yet, policy uncertainty, reinforced by corruption, is still seen by businesses as a number one constraint. Lots of efforts are being put into the presidential *anti-corruption* campaign – yet, the results so far look mixed, with international and domestic observers differing in their opinions. Significant (perhaps, most notable) achievements have been observed in such areas as *red tape* reduction and *crime* prevention. Yet, the achievements in reducing criminal activity remain fragile.

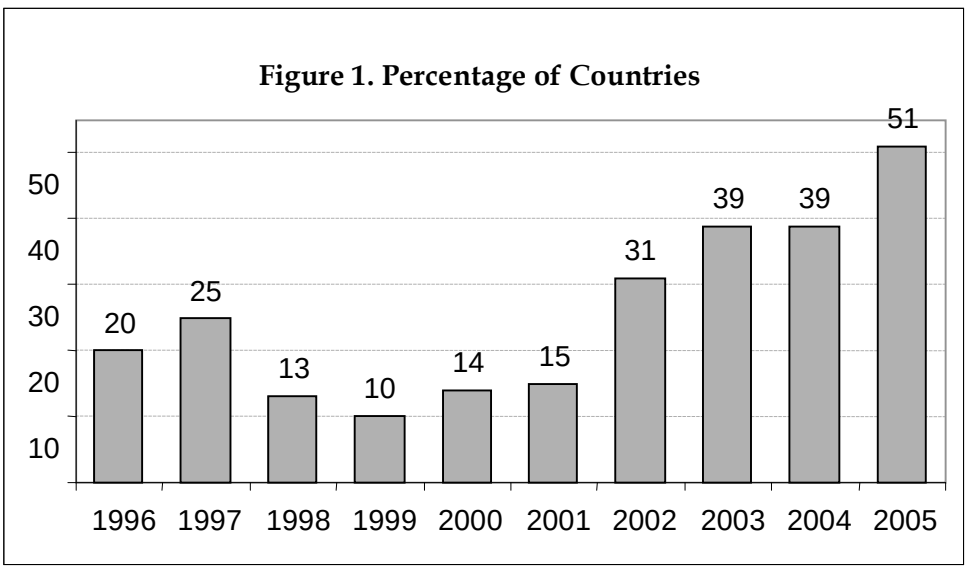
Resolution of the bottlenecks in *infrastructure* is also advancing relatively slowly, with the ground transportation sector being the most difficult, yet most important, one to reform. Access to *financial* services by individuals in Colombia has been declining, credit supply to the productive sector remains constrained, and overall deepening has stalled. *Informality and unfair competition* remain a substantial problem stemming from multiple sources: the heavy tax burden, labor rigidities, money laundering activities, regulatory uncertainty, poor legal system as well as still substantial bureaucratic inefficiencies. Finally, despite the increased R&D spending, technological readiness of Colombian companies even slightly declined in 2005. One reason is the bottlenecks in the *national quality system* that suffers from institutional inconsistencies, poor metrology network and lack of ability to develop highly specialized standards that are increasingly needed.

The authorities are currently working on the organizational arrangements to implement a Competitive and Productivity (C&P) National System, articulated with other important systems: Science, Technology and Innovation, Education, Quality, Human Resources, among others. Guidelines for the establishment of this system are expected to be unveiled soon.

International competitiveness ranking

As a result of these efforts, Colombia's international competitiveness rankings continue to improve although with some caveats. The "Doing Business" report, in its 2005 edition, rated Colombia the second-fastest reformer in the world, after Slovakia. This high ranking was due to the country's significant reforms in the areas of administrative simplification,

contract enforcement, and property registration. While there has been and important improvement in Colombia's ranking in the WEF growth competitiveness index in the last decade and most recently– it ranked 64th out of 104 countries in 2004 and 57th out of 117 countries in 2005 – it is still relatively low (Figure 1) and the overall WEF growth competitiveness score remained the same in 2004 and 2005 (3.84)[142]. The factor that prevented the overall Colombia's score from improvement was the apparent problems in the technology area, ICT in particular. The ICT downgrade was mostly caused by the introduction of additional indicators, such as intensities of cellular phone and internet use, on which Colombia still fares very poorly, despite the fact that these and related indicators are rapidly improving



Source: *World Economic Forum (2003-2005).*

Caveats

Thus, the good news about the recent progress in increasing Colombia's competitiveness should be taken with a pinch of salt. The recent improvements in selected areas were substantial (e.g., administrative simplification) and have driven some of the competitiveness indicators (e.g., the Doing Business) significantly up. At the same time, progress in other areas was notably slower. Besides, despite the significant progress in ICT-related areas, Colombia still remains well behind the majority of countries. Perhaps more important, a key challenge for Colombia is to provide an economic environment conducive to economic growth in a more open and global economy. Perspectives of increased trade integration raise further interest in the constraints for productivity growth and thus competitiveness. It is widely recognized that, as the adjustment to trade integration tends to occur under fairly inefficient factor (labor, capital and technology) and product markets, working on a

[142] Colombia's advance was mostly due to changes in the scores for other countries as well as sample enlargement.

complementary agenda is key for the country to reap the benefits of trade integration and further stimulate economic growth.

As competitiveness is a vast and multi-faceted concept, we take here a narrower definition focusing on policies and institutions that influence the return and the risk associated with investment. It thus includes regulatory policies, public administrative procedures, infrastructure conditions, as well as incentives embodied in institutional arrangements, such as security of property rights and the rule of law.

Economic and regulatory policy uncertainty, including taxation

Sustainability of recent progress is key

Sound macroeconomic policy and an improved global economic environment have brought dividends in terms of economic growth. Since 2003 yearly real GDP growth rates have been over 4 percent , reaching an estimated 5.1 percent in 2005. This compares favorably with the 1.7 percent average of the 2001-2002 period, and is reflected in a reduction in the unemployment from 16 percent in 2000-2002 to 12.2 percent by end-2005. A 4-percent growth (a perceived "natural" trend) is planned for the next several years. Central for this improved macroeconomic polices has been the more solid fiscal stance - although fiscal concerns persist over the long run. Of the domestic factors, the improved security situation (still fragile, though) has also contributed to the country's recovery.

Instability of tax policy

Instability of the tax regime is a factor behind macroeconomic fragility as well as insufficient investment. The last three decades saw 14 changes to the tax regime in Colombia. While total domestic tax collection as a share of GDP in Colombia is around the median of similar middle-income countries, distortionary taxes are relatively high. The base rate for the corporate income tax is 35 percent, to which the Government has added surcharges of 5 percent and then 10 percent to raise more revenue. The high corporate rate encourages transfer pricing schemes and other manipulations. Investors face a 38.5 percent statutory tax and often effectively more (for example, Argentina's rate is 35 percent, Bolivia's is 25 percent, Brazil's is 25 percent, Chile's is 16.5 percent, and Mexico's is 32 percent). Utilities suffer from unpredictable tariff changes. For example, in the water sector, frequent tax increases have been coupled with hardly predictable tariff reductions – making long-term investment in the sector problematic. The system allows granting numerous tax exemptions which opens opportunities for corruption and destroys level playing field.

A preferable approach is to expand the corporate income tax base by eliminating exemptions as well as to reduce distortions by lowering the Marginal Effective Tax Rate (METR) through[143]:

- lowering the corporate income tax rate;

[143] See World Bank (2005b) for detailed information on each of the items.

- lowering the depreciation deductions to reduce tax distortions across assets and business sectors;
- increasing withholding of interest to reduce the existing tax bias favoring debt finance;
- amending the rule for partial expensing so that the purchase price of the asset is deducted only once;
- reducing or eliminating the 0.4-percent tax on financial transactions;
- extending and completing the recent reforms for crediting the VAT on investment;
- simplifying tax administration procedures for the payers and the government.

Investor risks

Investors are subjected to the risk of changing the rules of the game that arises from unexpected changes in laws and regulations. The new "Legal Stability Law" (Law 963 of July 2005) seeks to address investor concerns about legal and tax instability. It allows for contracts to be signed between the Government and investors, local and foreign, for an annual fee of 1 percent of the value of the investment in that period. In return, the Government guarantees that, with certain exceptions, subsequent changes to laws and other rules directly applying to the case will not be applicable to the investor. While definitely a step in the direction of greater policy stability, the law is also a step away from creating a level playing field, effectively generating cohorts of investors with fixed, but different, privileges (as long as policies are unstable). *Therefore a comprehensive legislative agenda with a longer-term vision would help reduce uncertainty in economic policy and regulations*.

Achievement of long-term objectives

The initiatives like the "Agenda Interna" are aimed at wide consultations with the private sector and other stakeholders on a variety of issues that have implications for future economic legislation. Through DNP and the Ministry of Industry and Commerce, the government is working with representatives of the productive sectors on agreements on the way forward to improve competitiveness.

Inefficient bureaucracy

Reducing red tape

The National Development Plan establishes reduction of red tape as a central element of the Administration's drive to improve the business environment. The Administration has carried out an inventory of existing bureaucratic procedures and identified those that have a direct effect on business activities: about 1,000 out of a total of 2,676 procedures. CONPES policy document No. 3292 of 2004 formulated a strategy to reduce red-tape by means of inter-institutional coordination, updating of the legal framework, rationalization of existing procedures, and technological strengthening of government agencies. Already by December of 2004, about 150 bureaucratic procedures had been simplified and 18 eliminated.

Ley Anti-Trámites

Law 962 of July 2005 eliminated around 80 bureaucratic processes, and prevented state entities both from creating more of them, and from raising funds through charges for such processes. It also permitted much more documentation to be submitted electronically or by mail, limiting the need for personal appearances, and rescinded the requirement for signatures to be notarized in most bureaucratic procedures.

One-stop shops

Major progress was achieved through the creation of "one-stop shops" to streamline bureaucratic procedures. The Administration, through DNP, has worked with the Confecamaras to establish Centers for Enterprise Assistance (CAEs) in six major cities. CAEs collect, process and transfer all the information to, on average, 11 local and national agencies involved in the registration and licensing process for businesses. CAEs enabled registration based on the presumption of compliance with these agencies' requirements, with ex-post random verification. The CAE program currently extending until 2007 seeks to add 51 more cities to the six already covered, to further simplify the business registration process, and to expand the array of support services. Table 1 shows major achievements and near-future targets of the CAE program.

Reducing barriers to foreign trade

A program for reduction of the bureaucratic procedures related to foreign trade, the Sistema Integral de Información de Comercio Exterior, is under way. Under this program, the number of forms to be filled by an exporter will be reduced from around 35 to 1, the processing time in the customs – from 12 to 5 hours, and the average time for export-related bureaucratic procedures – from some 20 to 2 days. The initiative is guided by a ministerial decree issued at the end of 2004.

Simplification efforts at the Ministry of Social Protection

These have concentrated on the unification of the forms used by government agencies and private companies that collect social security and other mandatory contributions. The integrated system will have a single form – or formulario único – that will replace the 283 different social security forms previously used by various institutions.

Table 1. Achievements of the Centers for Enterprise Assistance Program, by Target Dates

	Before program	Results by June 15, 2005	Target for 2007
Time to set up a business (days)	51 for individuals	1.8	*1*
	55 for legal entities	4	
Number of times entrepreneur must meet with officials	31 for individuals	3.3	*1*
	34 for legal entities	5	
Organizations entrepreneur must deal with directly	10 for individuals	*1*	*1*
	11 for legal entities	2	2
Administrative processes entrepreneur must follow	17 separate processes; 3 previous certification processes *(conceptos)* for which charges levied without legal basis	16 of 17 integrated into CAES; 3 *conceptos* eliminated in all cities except Bucaramanga (1 *concepto* left)	All procedures integrated into CAES and previous certification processes eliminated
Cost of creating a company	Direct cost around COP930,000 plus around COP113,000 excess cost (mostly for *conceptos*)	Total costs cut by 20 percent on average; excess cost cut by around COP85,400 on average	Cut total cost by 30 percent and eliminate excess costs

With all the necessary elements for further progress in the area of red tape reduction in place, the Administration, in cooperation with private sector and donors, has to ensure adequate financing for the envisioned measures. For example, the CAE program so far has only limited financing provided by a foreign grant.

Corruption

Differing opinions about success of the program

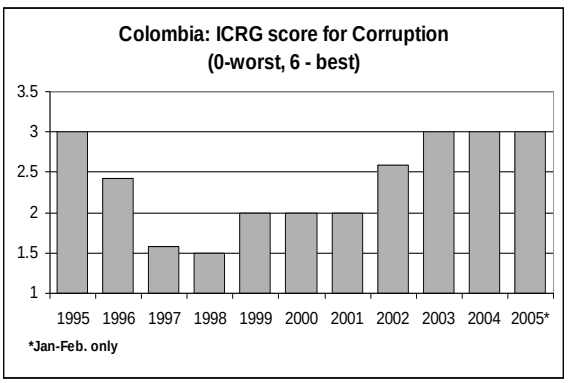
The presidential program to fight corruption initiated in 1999 seems to have reaped generally positive results, but opinions differ. The ICRG Corruption index has improved significantly since then (Figure 2). According to a recent study by Transparency International, Colombians top the list of "optimists" who are confident about the good prospects of fighting corruption in their country. WEF puts the level of corruption in Colombia at a fairly moderate level (Figure 3). Nonetheless, corruption is still seen as a major problem. More than 60 percent of the respondents to the 2004 Probidad survey were of the opinion that during 2001–03 corruption increased (Figure 4); the negative opinion was especially strong in Cartagena, Bucarramanga, and Popayán. Local authorities were viewed as the most corrupt entities (Figure 5).

Focus at the local level

The presidential program to fight corruption is moving in the right direction—focusing on the local level. The program is currently concentrating on the implementation of the regional program—whereby the Administration promotes the voluntary signing of the so-called "transparency pacts" between local authorities, departmental-level authorities, and citizens (as represented by nongovernmental or other organizations). These pacts allow the

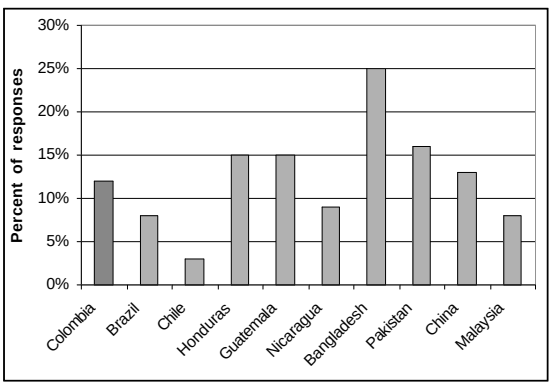
public/local communities to be better informed about the Administration's decisions and actions and to exercise social control. This participatory process is an important element of the fight against corruption. Combating corruption is likely to be a major objective in Vision Colombia 2019, which aims to provide a countrywide consensus development strategy, not just a Government vision.

Figure 2. The Progress with Corruption after the Crisis, ICRG Data



Source: *ICRG.*

Figure 3. International Position of Colombia vis-à-vis Corruption



Note: *Business executives were allowed to rank corruption as one of the most problematic factors.*
Source: *World Economic Forum (2005).*

Figure 4. The Increase in Corruption during 2001–03

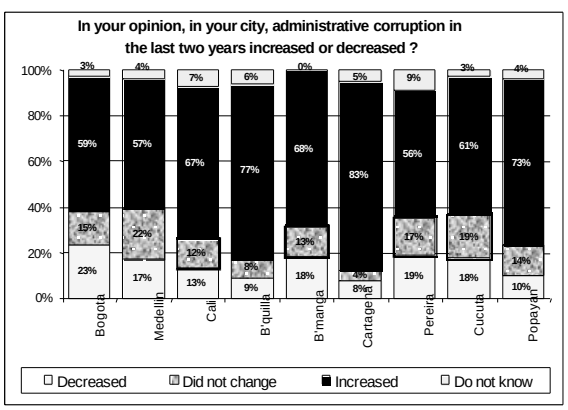
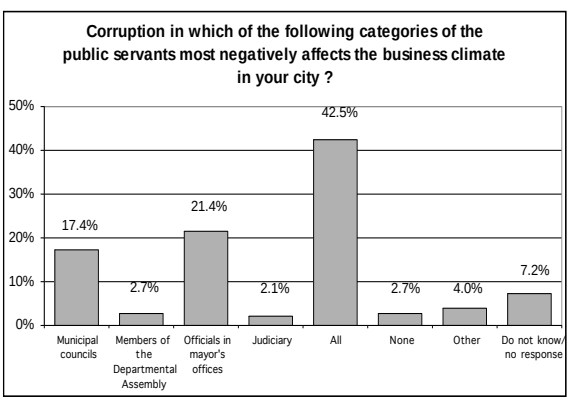


Figure 5. Local Authorities as Most Corrupt



The proposed actions are interrelated with improvements in other important areas. These actions, of which the first three are rather long-term, are:

- Create a level playing field and eliminate the opportunities for granting exceptions. This is also related to ensuring greater policy stability.

- Further improve transparency and accountability. This includes improving bureaucratic efficiency, including in government procurement and customs. Introduction of ICT-based media for greater efficiency and control is a must, and is gradually taking place.

- Continue the work at a local level aimed at greater transparency of the activities of local public offices, including inspectorates. As for the latter, this includes the successful ongoing work to establish one-stop-shops for company registration which will also provide coordination between inspectors' offices and companies, reducing conflicts of interest.

- Further curtail money laundering activities, including through strengthening the Anti Money Laundering/Combating the Financing of Terrorism (AML/CFT) regulatory framework by the means of issuing a decree enhancing the role of the *Comisión de Coordinación Interinstitucional Contra el Lavado de Activos*. This is also related to fighting informality and improving the functioning of the financial sector.

Lack of access to financing

Further financial deepening is needed

Despite the successful recovery of the financial sector from the crisis, further financial deepening is needed to ensure due flows of funds to the private sector. As Figure 6 indicates, post-crisis growth in domestic credit was led by credit to public sector, which, by 2003, has become relatively large, on an international scale (Figure 7). Credit supply to the productive sector remains constrained. Although net credit portfolios have started to grow after the crisis, the fastest growth has come from the consumer segment. The high corporate lending spreads have not declined for a number of years. As the Business Productivity and Efficiency DPL points out, the Government's fiscal requirements may continue to create a situation of crowding out, limiting additional financing flows to the real sector.

Figure 6. Colombia: Composition of Domestic Credit

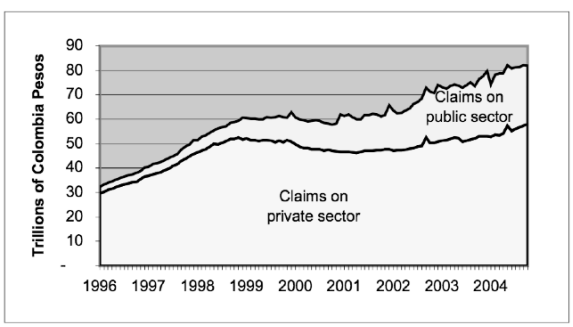
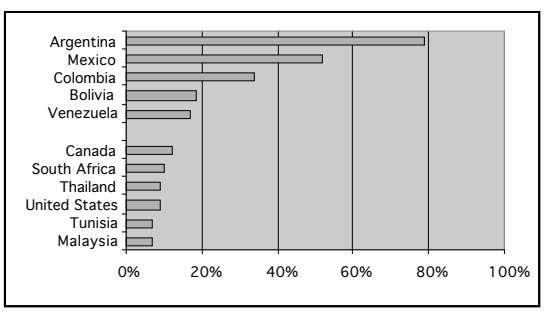


Figure 7. Percentage of Domestic Credit to the Public Sector (2003)



The bias toward short-term financing

Firms have a strong bias toward short-term financing strategies, which could be addressed through more developed capital markets. This raises questions about the sustainability of the structure and its effectiveness for supporting long-term growth. According to the Companies Superintendency, in 2003, on average, about 63 percent of total corporate liabilities were short-term liabilities.

- The Administration should continue with the broad reform process to foster capital market development. While long-term in nature, the process has certain elements to be addressed in the short term, such as implementation of the recently enacted (2005) new Securities law (Ley de Valores), which is a major step forward in the definition and regulation of crucial aspects of the capital markets. Another short-term task is reducing the still high transaction costs for accessing the capital markets.

Corporate insolvency

A better framework for corporate insolvency is necessary to facilitate the restructuring and closure of firms, and ultimately increase the provision of credit. An effective insolvency framework stimulates the provision of credit as financial institutions perceive a lower level of net losses in case of default. Colombia's current system has two main limitations: the laxity of prerequisites for reaching restructuring agreements, which may eventually lead to the failure of the restructuring plan and to liquidation. Second, delays in insolvency procedures do not allow companies to be rapidly reorganized or liquidated.

- The Administration should, in a near term, overhaul the existing insolvency-related legislation. While the proposed Ley de Insolvencia, which, among other things, will reduce the time required for restructuring and liquidation procedures, its passage has been delayed due to the extension of Ley 550 that is not as efficient in resolving insolvencies.

Microfinance

Promotion of an active microfinance sector in the country is an important element in building growth potential through enabling access to credit to the great number of informal sector participants and bringing them into the formal sector. There are two types of micro-finance institutions in the country: the first composed NGOs that account for 40 percent of the market and the second by the regulated banking system, which accounts for 60 percent. The development of the microfinance sector is hampered by NGOs' lack of capital and the cap on micro credit interest rates based on a Constitutional Court decision. NGO lenders tailor their loan products and collection methods to the earnings and living situations of low-income, informal households, and have managed to keep default rates low.

- The Administration should continue promoting cooperation between banks and NGOs, in which banks provide liquidity and coverage, and NGOs – their lending technologies and experience. One commercial bank already participates in the scheme, with five more expected to be involved. The bank-NGO collaboration is

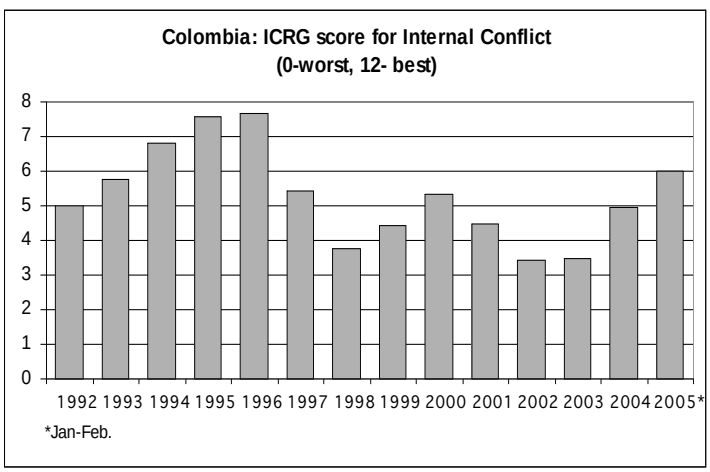
strengthened by the presence of the National Guarantee Fund (FNG) providing "global automatic guarantee agreements". By mid-2005, FNG has signed such agreements with 15 banks and 26 non-bank financial intermediaries.

Crime and insecurity

A cyclical security situation

While in the last two years the security situation in the country substantially improved, over the long term its behavior has been cyclical, with no particular trend and rather following political cycles (see Figure 8). Often times the Administration establishes alliances with certain paramilitary groups in order to improve the stability and reduce the prevalence of violence. President Uribe's success in doing so has resulted in improved security in 2004 and 2005. Yet, some recent events in Bogotá, such as once again intensified kidnappings suggest that the achievements may appear more fragile than they seem to be.

Figure 8. Colombia's Security Cycles



- Improved security situation is a priority for any administration. The focus should be on resolving long-standing social conflicts related to an exclusionary political, economic and social system and aggravated by financing of armed groups obtained through drug trade and other illegal operations.

- The key issues to address in resolving social conflicts are (i) access to land and resources necessary for its efficient cultivation for non-drug production[144], (ii) access to justice, (iii) property and life security, and (iv) fighting corruption[145].

- These issues should be addressed independently of the willingness of the various groups to negotiate.

[144] The latter is directly related to availability of financing, microfinance in particular.
[145] The recommendations on improving the security situation in Colombia follow those in the 2003 World Bank edition of "Colombia: The Economic Foundation of Peace" (M.Guidale et. al. editors).

Inadequate infrastructure and high logistics costs

This topic is considered in detail in the recent Competitiveness study and the REDI research by the World Bank[146], the results of which are summarized in the Note on infrastructure for growth Here we touch on selected important points. Specific suggestions are presented in the final section.

Infrastructure and competitiveness

Reliable and affordable infrastructure is critical for Colombia's competitiveness. The REDI study indicates that Colombia would need to invest around US$2.6 billion per year (or 3.2 percent of GDP) on infrastructure, to improve the productivity and competitiveness of the country. International gateways, mainly ports and airports, and, eventually, border crossings and the electricity sector present some of the most pressing needs. The share of the total infrastructure investment that could be financed directly by the private sector is around a third (or 1 percent of GDP). However, private sector participation is still hampered by constraints including: unclear prioritization among infrastructure projects by the Government; a lack of transparency; the instability of the legal framework for public-private partnerships; inadequate access to finance; and security concerns.

High logistics costs

The cost, time, and difficulties involved in moving materials along the production chain and in getting products to markets are excessive in Colombia. Much of the problem is geographical: production is concentrated in the mountainous interior, while around 85 percent of exports leave by sea. Logistics costs represented 18.6 percent of sales in 2003-2004, against an Andean average (excluding Bolivia) of 13.9 percent and U.S. average of 8.1 percent. The trucking industry, characterized by a regulatory framework in which perverse incentives dominate, is a major bottleneck that is difficult to resolve due to the high lobbying power of the involved parties, such as transport companies and truckers.

In order to introduce cost-effectiveness considerations, the logistics study included an exercise attempting to rank the actions based on fiscal costs and estimated impacts, in order to suggest an action plan for the Administration. A group of low-fiscal-cost/high-impact measures include the reform of the trucking industry, the revision of ports and El Dorado airport concessions (currently under way) and action in software activities, like customs. The group of measures with high fiscal cost but nevertheless with high impact includes some critical highways and investments in ports.

Informality and unfair competition

Informality and unfair competition remain a substantial problem stemming from multiple sources: the heavy tax burden, labor rigidities, money laundering activities, regulatory uncertainty, poor legal system, corruption, and still substantial bureaucratic inefficiencies.

[146] World Bank

The two most important factors behind the high informality seem to be the rapid increases in the minimum wage over the last decade and the heavy tax burden.

Tax evasion

Firms can save some 50 percent in labor costs by evading paying social security and other mandatory obligations. Due to VAT evasion, VAT productivity (measured as the revenues from the VAT as a percentage of final consumption divided by the average VAT rate) is close to 30 percent in Colombia, compared to some 70 percent in Chile and Nicaragua.

Rapid minimum wage increases

The increases in real minimum wage that occurred primarily between 1996 and 2000 were based on backward-looking inflationary expectations at the time of falling inflation. The World Bank Labor Market study for Colombia (2005)[147] shows that if the minimum wage had been kept constant at 1995 levels, unemployment for men and women would have been 7 and 4 percentage points lower in 2002, respectively, halving its actual level for men. The high minimum wage has its largest negative impact among those groups that supposedly were to be protected: the young and the least skilled. While some may argue that the high minimum wage pushes producers into the most productive and cost-efficient businesses, the major impact is to increase labor market informality and unemployment (Figures 9 and 10).

Figure 9. Unemployment and Minimum Wage

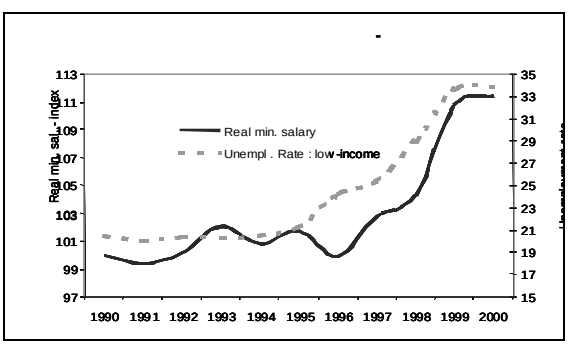
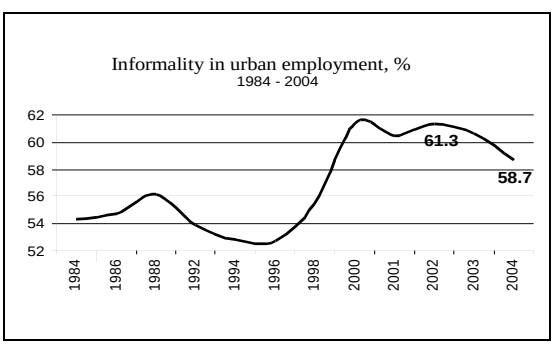


Figure 10. Dynamics of Informality



Source: DNP

Inflexibility in hiring and firing

Other labor market-related reasons for the high informality include employer inflexibilities in making hiring and firing decisions. According to the 2006 *Doing Business Report,* the average cost of firing an employee is equivalent to 44 weeks of salary. Although down from 49 weeks last year, the cost is well above the 33 weeks in OECD countries; the difficulty of hiring index, that measures easiness and limitations of using term contracts and how close the minimum wage is to the value added per worker, is 72 in Colombia, compared to 30 in

[147] World Bank (2005)

OECD countries. While Law 789 of 2002 introduced greater flexibility of working hours and adjusted downwards mandatory overtime compensation, this, clearly, was not enough.

Cost savings from informality

Unfair competition is closely linked to informality. The cost savings achieved through informality allow undercutting the prices in the formal sector. The effect is especially strong in the retail sector where illegal imports are a serious problem. The value of smuggled goods in 2000 has been estimated, by various sources, to be between US$1 and US$5 billion (6-30 percent of the formal merchandize imports). Contraband is a well-known way of money laundering. The joint efforts of the DIAN and major importers have resulted in cutting the contraband by as much as 50 percent in 2000-2002. Yet, of the 217 respondents to an ANDI survey who answered the question about the changes in the situation with anticompetitive practices and contraband in the course on 2003, only 18 percent indicated positive changes, while 56 percent saw no changes, and as many as 26 percent thought things were getting worse. In 2004, 45 percent of the 306 respondents indicated they were subjected to unfair competition, 57 percent of whom cited contraband imports as its major component.

- Policies aimed at broadening tax base and reducing tax rates may have a positive impact on reducing informality. It would be good to see informality reduced, in five years, to at least 40 percent from the 60-percent level it is at now.

- Applying measures to prevent adjustments of the minimum wage that exceed price and productivity growth is also important to reduce informality. For example, profound legislative changes to take the issue from under the umbrella of the Constitutional Court may be required.

- More profound changes in the legislation aimed at enabling greater flexibility are required. Currently, a joint Administration–Congress committee is analyzing recent developments in the labor market with the idea of drafting additional legislation in the future, when labor market reforms become politically feasible (i.e., at least after the elections).

- The Administration should ensure well-coordinated cooperation between the DIAN and other agencies involved in fighting contraband and money laundering. Cutting contraband further by 50 percent over the next five-year period would be a good target.

The national quality system

With more than 2,600 ISO-certified businesses, Colombia ranks second among all Latin American countries, far behind Brazil (4,000) but having surpassed Mexico and Argentina, and well ahead of Chile, Venezuela, and Peru. Nevertheless, there is still great potential for improvements. In this sense, three areas have been identified as critical to focusing efforts: (i) weak institutional design stemming from poor legal framework; (ii) lack of participation in international quality assurance bodies; (iii) relatively weak infrastructure for quality and metrology services, including development of specialized standards.

The government is actively working on this area, and is currently elaborating a CONPES document establishing a national policy on quality, including the proposition of public policy targets, deep organizational reforms in standards, reference laboratories, and certification and accreditation systems.

A weak accreditation system

The weak link in Colombia's quality certification system is accreditation, for which functions are dispersed and objectivity compromised. The Division of Technical Standards of the Superintendency of Industry and Trade (SIC) of the MCIT now accredits and supervises most certification bodies (independent organizations that assess and certify conformity with international standards), as well as testing and calibration laboratories. This arrangement has several shortcomings: (i) the other functions of the Division of Technical Standards raise conflicts of interest: it also accredits certification bodies for mandatory technical regulations, as well as enforcing compliance with those regulations. In addition, it offers calibration services; (ii) The current organization of SIC does not guarantee that the activities of the departments related to those other functions do not compromise the confidentiality, objectivity and impartiality of its accreditation services; and (iii) Other government agencies also have accreditation functions in some areas, such as INVIMA, the National Institute for the Supervision of Medicines and Food *(Instituto Nacional de Vigilancia de Medicamentos y Alimento*s). That the different accreditation functions are not clearly defined or delineated creates uncertainty for potential clients and generates conflicts between the various agencies involved.

Lack of international recognition

In addition, in the current system, accreditation by SIC has little international recognition, which has prompted ICONTEC to seek additional accreditation from bodies in other countries, for its quality certifications to be recognized abroad. This situation has led Colombian products to be certified in each country it wants to export, clearly affecting competitiveness of export companies. Whether or not a new entity is created, accreditation needs more resources, particularly to improve technical evaluation and pay the fees and expenses associated with membership of international bodies. The Government has allocated no new funding for accreditation since 1997. The National Metrology Institute is also under the umbrella of SIC. Consequently, expense accounts, such as participation in international metrology organizations (CIPM, OIML, CITAC, etc.), have to be approved by the Congress. As a result, the participation in these organizations is almost inexistent - in sharp contrast to practically all the rest of the countries in the region.

Lack of expertise

The local metrology network – including the enforcement of standards and measures in the local markets by mayors' offices and the like – suffers from both, the lack of expertise and the lack of proper equipment. Thus, consumer protection is at risk. At a national level, the metrology equipment, a large part of which was acquired under a German grant in the second half of the 1990s, is getting obsolete, with no appropriate funds allocated for its renovation (which is also a part of the institutional design problem).

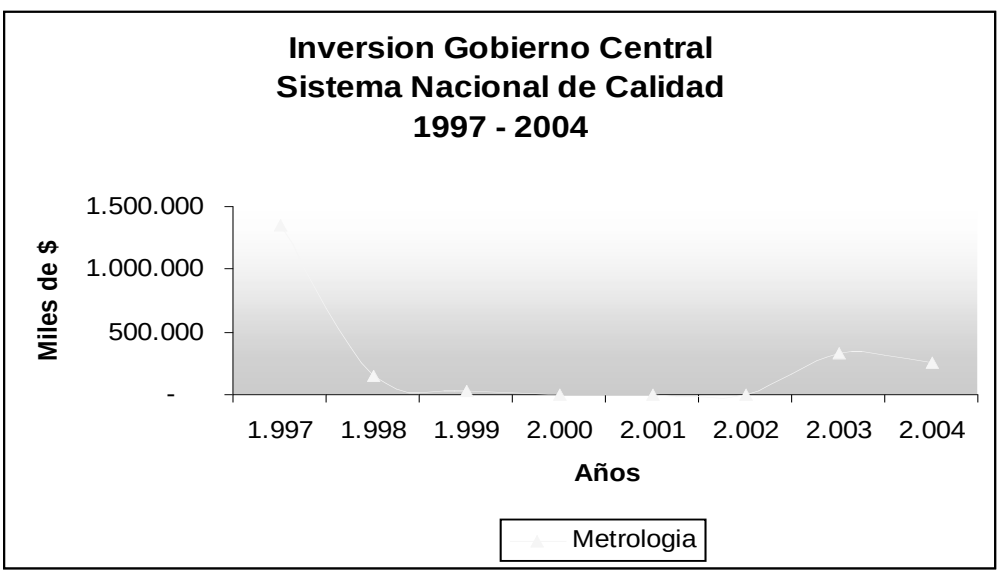
Demand for standards

As businesses in Colombia become more sophisticated, the demand for highly specific standards is growing. Special standards are needed in chemicals and other high-tech industries. This demand is currently not being satisfied, as better equipment and expertise are needed.

- The Administration should implement a legal and structural reform of the national quality system to avoid conflicts of interest, better identify responsibilities and ensure greater financial independence of the entities comprising the system.

- In order to ensure continuous progress in the area of quality assurance, the Administration has to ensure continuous financial support to the national quality system, which so far has been quite erratic, to say the least (see Figure 11).

Figure 11. Public Investment in Metrology



Source: DNP.

Policy recommendations

The Note described the most important business climate constraints in Colombia identified in earlier studies. The constraints included regulatory uncertainty; corruption; inadequate infrastructure; inefficient bureaucracy; lack of access to financing; high burden of taxation; crime; informality; and weaknesses in the national quality system. Despite the significant progress in Colombia's competitive position in the world, the reforms have so far been fragmented, and much remains to be done. A summary of recommended policies is presented in Table 2.

This Note includes several recommendations in each of these topics and improving the investment climate implies advancing in all of these areas. What the new administration might wish to undertake is tackle, in the 1st hundred days the issues that constitute binding constraints for several of the issues that are a priority to address and that require important political capital that it could afford to spend at the very beginning of its administration. For the 1st year, the administration might wish to tackle important priorities, but that require more preparation to launch. Throughout their mandate, the administration should work in areas that require longer maturation process.

Table 2. A Suggested Roadmap of Policy Actions for the Short and Medium Term

First 100 days of Administration	First Year of Administration	Administration Period
• Overhauling the tax regime, that will have a significant impact on the business environment and the fiscal stance of the country. It will also provide a level playing field by reducing informality and will reduce policy uncertainty. This should be done through a comprehensive legislative agenda with a longer-term vision (including stricter constraints on granting exemptions) • Enabling greater labor market flexibility which will improve the investment climate and reduce informality. Also applying measures to prevent adjustments of the minimum wage that exceed price and productivity growth. • Continuing with the participatory approach to policymaking for longer-term stability through consensus among major stakeholders, including through the 2019 Visión Colombia II Centenario and the Agenda Interna.	• Improving security • Continue efforts to reduce corruption through creating a level playing field and eliminating the opportunities for granting exceptions, further improving transparency and accountability; continuing the work at a local level aimed at greater transparency of the activities of local public offices; and furthering curtail money laundering activities, including through strengthening the Anti Money Laundering/Combating the Financing of Terrorism (AML/CFT) regulatory framework..	• Increasing access to finance through increasing the financial depth by strengthening the supervisory environment; overhauling the existing insolvency-related legislation (the prepared Ley de Insolvencia being a key instrument); promoting cooperation between banks and NGOs. • Improving country's infrastructure through fiscally-neutral policies to reduce the regulatory risk for private participation in infrastructure; greater private sector participation in the electricity and telecommunications sectors; increasing financing of the roads sector toward the level needed to ensure sustainable maintenance of the road network; and reforming the regulatory framework for pension funds could tap a major new source of local private finance for infrastructure. Improving the national quality system by implementing a legal and structural reform of the national quality and continuous financial support to the national quality system, which so far has been quite erratic.

References

Departamento Nacional de Planeación. 2004a. *Optimización de los Instrumentos de Desarrollo Empresarial.* Documento CONPES.3280. Colombia (April).

----. 2004b *Proyecto de Racionalización y Automatización de Trámites.* CONPES.3292. Colombia (July).

----. 2004c. *Agenda Interna para la Productividad y la Competitividad: Metodología.* CONPES.3297. Colombia (July).

----. 2005, V*isión Colombia II Centenario: 2019.*

Transparency International Corruption Research. (2004).

World Bank. 2004. *Colombia: Recent Developments in Infrastructure (REDI).* Washington, D.C.

----. 2005a. *World Development Report.* Washington, D.C.

----. 2005b. *Colombia Country Economic Memorandum: The Foundations for Competitiveness,* Report No. 32035-CO. Washington D.C.

----. 2005c. *Colombia - First Programmatic Business Productivity and Efficiency Development Policy Loan,* Report No. 33538-CO. Washington D.C.

----. 2005d. *Doing Business.* Washington, D.C.

World Economic Forum. 2003. *Global Competitiveness Report.*

----. 2004. *Global Competitiveness Report.*

----. 2005. Global Competitiveness Report.

Increasing Competitiveness through Science, Technology and Innovation[148]

Abstract: New technologies, new products and new production methods are major drivers of competitiveness. The Colombian National innovation system is fairly comprehensive and encompasses well-developed firms, individuals, government programs, and institutions. The public research system comprises ministries, oversight bodies, tertiary education institutions, sector research centers, and technology centers. Even though Colombia has innovative firms in several economic sectors, the country underperforms on innovation outcomes. Total investment in technology and research and development (R&D) is low and unstable. Private sector capacity and spending in R&D is limited, and the scientific and technological base is insufficient. In addition, public governance of the innovation system seems out of touch with need for increased emphasis and coordination. Lastly, while Colombia's quality certification diffusion is exemplary, its system for accreditation is afflicted with an unclear division of tasks between institutions, and an institutional setup that may limit its objectivity and internationalization. Given this diagnostic, we recommend the following priorities: (i) define science, technology, and innovation (STI) strategy and increase the importance of STI agencies in policymaking; (ii) strengthen public-private partnerships through, e.g., the creation of guidelines for division of intellectual property rights, and the establishment of funding programs for collaborative research between firms and public research centers; and (iii) accelerate investments in human capital, with special emphasis on an international evaluation and scaling-up of the national doctoral programs.

[148] This chapter was written by Andreas Bloom with the collaboration of Pedro Cedran and Isabel Sanchez.

Introduction

New technologies, new products, and new production methods are major drivers of competitiveness and growth. Science, technology, and innovation (STI) policy is a vital part of an integral strategy to reposition Colombian firms to successfully compete in the global economy. Thus, the importance of a coherent, effective, and well-funded STI system cannot be overstated. Such a system consists of an interactive set of national institutions, enterprises, and individuals whose activities contribute to the technological and economic development of the country. Successful innovation policies would allow the country to take better advantage of the large opportunities created by free trade agreements (FTA). Therefore, Vision 2019 correctly stresses the importance of a coherent, effective, and well-funded innovation system for economic growth and higher welfare of Colombians.

The Colombian innovation system

Background

Colombia's national innovation system is fairly comprehensive and encompasses well-developed firms, individuals, government programs and institutions. Nevertheless, it falls short on innovation outcomes.

Colombia underperforms on innovation outcomes. Colombia is granted 0.2 patents in per million capita by the US patent office[149]. This compares to 0.4 for Latin America, 52 for East Asia, and 91 for high-income countries. For a country of Colombia's income, it should file up to 50 percent more patents annually. Colombia falls short by a similar margin regarding investments in foreign licensing of technologies, a broader innovation measure (Figure 1).

Colombia features innovative firms in several economic sectors. Seven out of 100 Colombian companies invest in research and development (R&D), but only one out of seven 7 R&D-active firm applies for a patent in the US[150]. The innovative firms tend to be large and located in major metropolitan areas. The economic sectors with a higher proportion of R&D-active companies than the national average are petroleum and gas, chemicals, radio and TV, medical, other minerals, engines and turbines, other transportation, food, and machinery. The economic sectors in which Colombia obtains a higher share of patents than the sector's share of patents at a global level (an indicator of the Colombian sector's comparative advantage in innovation) are ordnance, industrial chemical products, food, petroleum and gas, engines and turbines, aircrafts and parts, and textile mill products.

In terms of quality certification diffusion, Colombia's performance is exemplary for the region. With 15 times more standards than in 1997, Colombia now boasts the second highest number of ISO-9000-certified firms in Latin America, after Brazil[151]. Certification against other quality and environmental standards is also widespread. The recent growth in certification in Colombia can largely be attributed to government support for certification and quality diffusion programs, particularly programs targeting middle, small, and micro enterprises. Quality certification services are overseen by the Superintendence of Industry and Trade (SIC), a government body attached to the Ministry of Commerce, Industry and Tourism. It accredits and supervises most certification bodies, as well as testing and calibration laboratories.

The public research system comprises tertiary education institutions, sector research centers, and technology centers. Public and private universities are the main institutions undertaking research and the training of researchers. These universities finance 39 percent of national R&D[152]. In addition, there are several sector-focused public research institutes funded by sector ministries, such as Agriculture and Social Protection, which also conduct research. Lastly, *Colciencias*, the main STI agency, funds more than 50 technological

[149] USPTO (2004)
[150] Colombian Innovation Survey (EDIT II), DANE (2005).
[151] World Bank (2005)
[152] UNESCO Institute for Statistics (2006)

institutes, the mission of which is to transfer technology and knowledge through technology services and R&D.

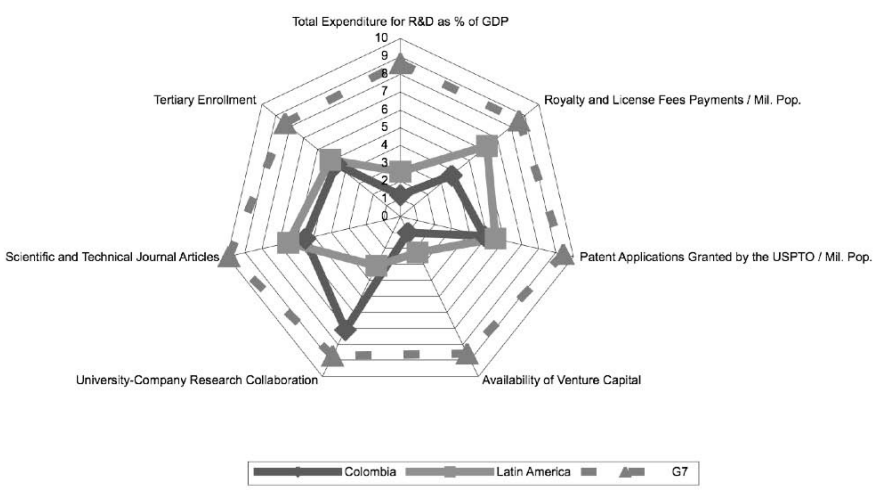
Science and technology policy is overseen by the National Science and Technology Council (Consejo Nacional de Ciencia y Tecnologia, CNCyT). The Council includes the ministers of Agriculture, Education, and Commerce; a representative of the Ministry of Labor; the rector of the National University, and the director of Colciencias. The CNCyT advises the President and guides science and technology policy. Since 1999, Ministry of Commerce, the National Planning Department, and Colciencias implement the umbrella program Plan Nacional de Productividad y Competitividad, which includes:

the *Fondo Nacional de Productividad y Competitividad*, managed by *Colciencias*. The fund (i) co-finances projects to enhance firm productivity; (ii) co-finances research projects in universities and research centers; and (iii) offers special credit schemes for small and medium enterprises (SMEs).

Proexport, funded by *Bancoldex* and *Funcoldex,* which provides guidance, financing, and technical expertise to exporters; and *Colombia Compite*, which facilitates increased interaction and exchange of information for innovation among the private sector, public sector, and academia in a wide range of economic sectors. The Ministry of Commerce administers this program in coordination with other ministries, such as Transportation and the Department of National Planning. In addition, the *Servicio Nacional de Aprendizaje* has smaller programs that help SMEs to improve the skills of their workforce in order to promote innovation.

Figure 1 provides a snapshot of the key indicators for the Colombian innovation system in comparison with the performance of the Latin American and Caribbean region and G-7 countries.

Figure 1. A Nascent Innovation System



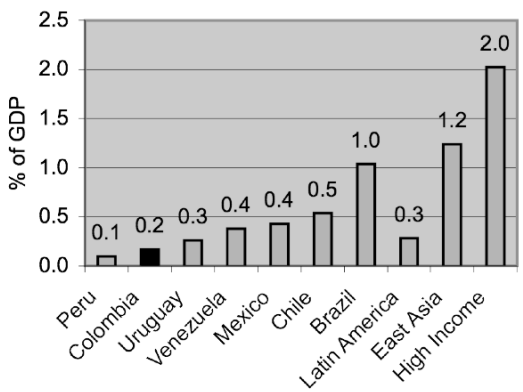
Source: *World Bank KAM database.*

Diagnosing the innovation system

Policymakers should address the following issues of the innovation system:

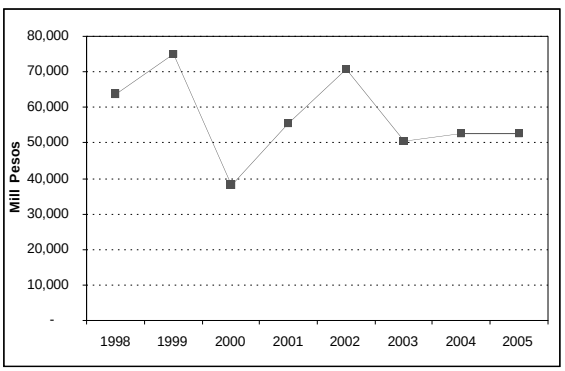
Investments in technology and R&D are low and unstable. In 2004, Colombia invested only 0.2 percent of GDP in R&D. This compares unfavorably with regional competitors, such as Brazil, Chile, and Peru (Figure 2). Returns to R&D for a country at Colombia's income level has been estimated at an impressive 80 percent if R&D funds are appropriately invested[153]. In addition, funding has not been consistent over time, which reduces its impact on the innovative capacity of both the public and private sectors (Figure 3).

Figure 2. R&D Expenditure



Source: World Bank KAM database.

Figure 3. Public Funding of Colciencias



Note: million pesos (current).

Source: Colciencias (2005).

Public governance of the innovation system seems out of touch with the need for increased emphasis and coordination. As the importance of innovation and knowledge has increased in the economy, the responsible agencies for theses areas should also receive greater emphasis in the government structure and budget. The main STI agency, *Colciencias*, which is responsible for implementation of programs to enhance scientific and technological capability, depends administratively upon the Department of National Planning (DNP). As an implementation agency, however, *Colciencias* seems to fall outside of the DNP's main role of analysis, coordination, and planning across government agencies. As a consequence, *Colciencias* has no independent budget and little direct voice in budget negotiations. This could contribute to fluctuations in public funding to STI, since annual budget negotiations occasionally neglect long- term funding priorities such as STI. Further, STI programs are spread across entities, and coordination could be improved. For example, while *Colciencias* is the main funding institution for science programs, significant research efforts are directed by sectoral ministries, such as the Ministry of Agriculture and Ministry of Social Protection, with little coordination and not necessarily employing best practices. It is uncertain to what

[153] World Bank (2004)

extend CNCyT supervises and coordinates these activities. For example, there appears to be no strategy for STI funding shared across government agencies.

Low private sector capacity and investment in innovation and R&D. Active involvement by the private sector in R&D is essential to building an advanced STI capacity. In fact, no country has undergone a successful technology transition without a significant contribution from industry. Private investment reaches 0.1 percent of GDP, which is similar to regional competitors, such as Mexico, but insufficient on a global scale. The main limiting factors are insufficient private-public collaboration, low awareness of current innovations, low education levels of employees, and reduced collaboration with suppliers.

Public-private collaboration is insufficient. According to a global survey of business executives, public-private collaboration in Colombia is rated 3.5 on a 7 point scale (Figure 1)[154]. This is the best in Latin America (Brazil and Chile are rated at 3.1 and 3.2). Yet, such examples are fewer than in high-income countries (average rate of 4.1). Informal conversations indicate that the principal obstacles seem to be lack of trust, different working cultures, and different motives for collaboration. These are common challenges in an innovation system, and can only be overcome by continually addressing the obstacles. Old practices and rigid rules in the management of public institutions are key inhibiting factors that affect policies on division of intellectual property rights, promotion, practices favoring teaching in universities, insufficient involvement of the private sector in the governance of public institutions, and lack of emphasis on commercializing research. Therefore, firms and employer associations also need to engage more in public-private partnerships. Further, the mobility of graduates and professors with cutting-edge knowledge is a key instrument for technology diffusion and knowledge sharing, which leads to bridge-building between the private and public sectors. Lastly, only a small number of government interventions such as *Fondo Nacional de Productividad y Competitividad,* actively stimulate collaboration.

The weak link in Colombia's national quality system is accreditation. The system is afflicted with an unclear division of tasks between institutions, and an institutional setup that does not favor internationalization and may compromise objectivity. These factors affect the international recognition of domestic certifications and impose a burden on exporters. The Superintendency of Industry and Trade (SIC) has accredited more than 70 organizations, which is commendable by regional standards. However, many of the SIC's clients are bodies charged with certifying and enforcing the compliance of technical regulations. This deviates from international practice and creates conflicts of interests. The SIC also offers other activities such as calibration services, but given the current organization of the SIC, there is no guarantee that the activities of the departments related to these functions do not compromise the confidentiality, objectivity, and impartiality of its accreditation services. More importantly, other government agencies have also been conferred accreditation functions in areas that have not been clearly defined. This hampers the growth of SIC's accreditation activities, creates uncertainty for potential accreditation clients, and generates conflicts among the different agencies involved in accreditation. Lastly, the SIC's accreditation department does not receive sufficient resources or have

[154] Global Competitiveness Report (2005)

enough autonomy to improve its technical and administrative performance and gain international recognition.

Colombia has a low scientific and technological base. The S&T base consists of advanced human capital and existence of cutting-edge knowledge in research institutions. The base determines the long run possibilities for exploiting S&T knowledge in the economy and is statistically significantly linked to private sector innovation. There are approximately 4,000 researchers in Colombia or 81 researchers per million (Figure 1). This compares to 243 for Latin America, 1,845 for East Asia and 3,181 for high-income countries[155]. Although a major expansion in the number of Colombian students has taken place the last three years, only 11 PhDs graduated in 2004[156]. Without a sufficient number of highly trained researchers in basic sciences and engineering, the quality of university graduates will decline and fewer researchers will take up employment in the private sector. Further, small and discipline-oriented research grants limit the effectiveness of the funding and appear unattractive to the best researchers. This is because (i) science has become extremely specialized requiring teams of researchers and expensive infrastructure and linkages to international research groups; and (ii) As most society and production related problems are multi-disciplinary, research similarly needs to be cross-disciplinary to better provide scientific and technological solutions to real life problems.

Policy suggestions for innovation-and knowledge-driven growth

Colombia would gain by putting in place policies that actively create incentives for the private sector to invest in innovation. Priority recommended actions are outlined below.

Increase spending on innovation, technology and R&D. Vision 2019 sets the goal of increasing public and private spending from the current 0.2 percent of GDP to 1.0 percent in 2010. Achieving this ambitious goal will require a significant increase in public funding to R&D. Without increased funding, institutional reforms and calls for collaboration would have limited effect. However, more resources alone will not necessarily produce the required results. Additional funds would have to be employed strategically, and followed by evaluations to assess their impact and guide future policies. Several aspects could be taken into account: (i) achieve a maximum leverage of private investments from public investment in order to reach the 1.0 percent-goal and to build private-public partnerships; (ii) provide funds for commercialization and outreach activities of universities and public research organizations; (iii) stimulate venture capital formation; (iv) ensure that all STI funding is transparent, peer-reviewed, and competitive; and (v) strengthen follow-up, monitoring and evaluation of STI funding.

Stimulate a cultural change within universities and firms towards public-private partnerships. Policies stimulating public researchers to engage the private sector and commercialize research could be put in place. In particular, institutional policies and national guidelines for division of intellectual property rights between the institution and

[155] World Bank KAM database.
[156] Ministry of Education (2006)

the researcher are important. Further, partnerships could be considered a necessity in strengthening regional clusters. This includes partnerships with technology and metrology bodies to spur adoption of standards. Lastly, several additional options exist for funding policies to encourage collaboration: (i) finance centers of collaborative research that require private co-financing and leadership; (ii) match private funds for purchase of public research; and (iii) reward private-public collaboration as a factor in allocation of institutional funding to universities and research centers. New programs should be preceded by policy analysis and followed by evaluations to learn about the impact and need for further initiatives. In particular, we would recommend examining whether existing funding programs could be adjusted to stimulate collaboration in order not to proliferate the number of funding programs.

Box 1. The Success of Collaborative Research Centers: Spain's CENIT

In September 2005, the regulations laying down the basis for approving subsidies within the CENIT Program of National Strategic Partnerships on Technological Research were approved. The Program aims at supporting public-private cooperation on research, development and innovation in areas of strategic importance to the economy. The Program provides financing for large scale integrated projects of industrial research with funding for initially five years to the tune of € 5 million annually. The participating firms are required to match public funding. Such projects need to have a strategic focus, be scientifically and technologically far reaching and must be oriented towards research into future technologies. Furthermore, projects must have a potential to be extended to the international level. The implication of this funding scheme is that each project has to be able to rely on considerable material and human resources from a variety of scientific and technological disciplines, fostering the integration of the public and the private sector.

Increase private sector capacity for innovation. Besides policies treated elsewhere, such as facilitating the start-up of businesses, reducing administrative red tape, and increasing access to finance, there are specific innovation policies that could improve private sector capacity: (i) increasing awareness of CEOs to new parameters of competitiveness such as quality, technology and innovation. The government and business associations could jointly organize seminars on technologies and research topics relevant to key business sectors or consider establishing technology foresight working groups; (ii) increase firm absorptive capacity through so-called ice-breaker programs that temporarily subsidizes employment of young researcher in businesses without R&D capacity (see Box 2); and (iii) concentrate R&D funding around topics relevant to sectors with R&D capacity, such as chemical industry, food, and engines.

Box 2. Building STI Capacity in Firms: Canada's Insertion Program

Lack of awareness of scientific and technological possibilities inhibits innovation in many companies. To boost S&T knowledge in firms, in particular SMEs, several OECD countries offer co-financing of young researchers to work in industry. The objective is to *break the S&T ice* and permanently increase S&T capacity of firms. The co-financing is temporary and declines in value over time, with the company financing an increasing share of the researcher's salary. A 2001 evaluation of a researcher insertion program in Canada – surveying 360 young researchers and 100 participating companies – found that 77 percent of supported *Icebreakers* were still employed in industry after the public support had ended, indicating that the program had long-lasting results of firms' S&T capacity.

Increase importance and coordination of innovation programs. It is probably not advisable to consolidate all science, technology, and innovation programs in one agency, since STI is cross-sectoral and should form a key element in the strategy of many sectoral ministries. Nevertheless, it is important to create a web of coordinated and co-financed programs to insure a coherent and effective innovation system that utilizes international best practice. This may be achieved through various complementary means: (i) invigorate the *Consejo Nacional de Ciencia y Tecnologia* to actively coordinate innovation policies; (ii) increase the importance of *Colciencias* within the government by making it an independent agency with its own budget reporting to the President; and/or (iii) improve coordination by promoting joint finance programs and elaborate a funding strategy detailing goals of each program and identify synergies and overlaps. This may be done, for example, through a new government strategy document, *Conpes,* within STI.

Box 3. Governance Reforms of STI: Policy Learning and Mexico's Reform

To address shortcomings of the innovation system, Mexico enacted in 2002 a new legal framework for its innovation system. The law elevated the Mexican STI council, CONACYT, from a decentralized public agency under the Ministry of Education to an independent government body with a separate budget line. It reports to the General Science and Technology Council comprised of nine Ministers and four representatives from the research community, and is chaired by the President. The governance reform created *fundos sectoriales*. Each sectoral fund is funded and administrated by CONACYT and a line ministry, such as Health and Agriculture, to finance R&D projects within that sector. The participation of CONACYT ensures that priorities and funding are coordinated across sectors according to national best practice. A recent OECD report on governance reform of innovation systems reviews how countries have responded to the need for increased emphasis of innovation and coordination within the innovation system. Above all, the report stresses the importance of policy learning within innovation. There is no silver bullet for reforming the innovation system—a dynamic innovation system requires continual reform fueled by evaluation, debate, and supportive policies.

To further improve its national quality system by reforming its institutional framework, strengthening supply-side capabilities and supporting demand for quality. The SIC's

accreditation arm could be revamped, with a clear separation from other functions and as a new impartial and independent legal entity that is able to sign international agreements and possibly be subject to private commercial law. In terms of its functions, Colombia's voluntary accreditation body should not be involved in mandatory accreditations and there should be a clear functional delineation between the voluntary accreditation tasks performed by the national accreditation body and mandatory authorizations performed by other bodies. These steps would allow the national accreditation body to join the main international and regional accreditation organizations and participate in mutual recognition agreements (MRAs) with a wide range of countries. Finally, accreditation needs more resources in Colombia, particularly to improve technical evaluation and finance membership in international bodies. Concerning the adoption of standards in the private sector, Colombia should learn from its success by evaluating the impact of recent domestic certification support programs, particularly in terms of productivity and competitiveness effects in certified enterprises. Moreover, support programs should be broadened to other types of internationally recognized certifications beyond ISO 9000. New approaches should also be considered to promote the adoption of standards in domestic supplier networks, such as partnerships between the public sector and large firms or other key players in the supply chains.

Increase the S&T base to ensure sustainability. Vision 2019 aims to double the number of researchers by 2010. Formation of this human capital is essential to underpin and foster a STI-driven private sector. To reach this goal, a substantial expansion of graduate and post-graduate programs is required. Therefore, *Colciencias*, the Ministry of Education, and accrediting bodies could continue to encourage expansion, while safeguarding quality. To foster world-class quality and relevance in research, the Administration should ensure that all public funding is competitive. This could include grants to existing institutions, such as public research centers under sectoral ministries. Alternatively, these centers could be required to obtain a certain threshold of funding through competitive funding or private co-financing. Investments in the S&T base could prioritize the areas of applied and cross-disciplinary research that focus on actual challenges in the Colombian society and economy. Lastly, accountability for funding must be strong, and future funding could be linked to past performance.

Box 4. No funding without Competition: United States
Los Alamos Nuclear Research Center

Leading science and technology nations finance R&D almost exclusively through transparent and open competitions. Even funding to sensitive research center goes into competition based on pre-defined and objective criteria. For example, the US Department of Energy launched in 2005 a request for proposals for running the world's most renowned nuclear center, Los Alamos. The grant was for 7 years with annual funding of around US$2.2 billion. The contract may be extended to 13 years according to performance. In tight competition with another corporation, the government selected a team made up of University of California and three large engineer and technology companies. The example shows the crucial importance for transparent competition to achieve better results, also for large center grants.

Prioritizing and sequencing policy recommendations

Improvements in the private sector's capacity to innovate can take place at a rapid pace, as shown by Finland, Korea, Ireland, and Spain. These cases demonstrate that building a coherent, dynamic, and efficient innovation system requires priorities, public-private collaboration, public investment, and policy learning. Innovation initiatives continuously require data collection, evaluation, debate and adjustment in order to improve. In setting priorities, the new Administration should focus on initiatives that (i) define the STI strategy and increase its importance; (ii) strengthen public-private partnerships through enhancement of policies and creation of funding programs, and (iii) accelerate investments in human capital. Within its first year, the Administration could consider:

Improving the STI policy framework by:

- bringing STI policy to the forefront of priorities, by elaborating and debating a Science, Technology and Innovation Strategy that increases the importance and capacity building of STI bodies;

- reviewing and modifying the incentive structure and institutional guideline for intellectual property rights for public researchers and institutions to commercialize R&D and interact with the private sector;

- gradually increasing competition for public STI resources, in particular for center grants. Since the increased competition could be perceived as going against the interest of the established research community, it should be combined with a clear justification for change, public debate and additional funds; and

- establishing an international evaluation and accreditation of doctoral programs.

Increasing private and public STI capacity by:

- fostering collaborative research around strategic economic sectors through private-public partnership. This could be large agricultural producers co-financing a relevant research agenda jointly developed by firms and public research institutions;

- stimulating commercialization of research and technology development through competitive funding to prepare research results for private sector funding, and possibly provide limited venture capital funding to boost private investment in STI; and

- accelerate Colombia's production of PhDs. Without accelerated production of quality human capital, Colombian research centers and firms will be unable adapt technology or become innovative based on S&T. Such acceleration should build upon the existing success and strengthen the international component of doctoral programs and enhance linkages with the private sector.

References

Colciencias, 2006. *Presupuesto de Ingresos y Gastos,* http://www.colciencias.gov/

Departamento Nacional de Planeación, 2005. *Visión Colombia II Centenario: 2019,* Bogotá.

Departamento Nacional de Planeación, 2005. "Politica Nacional de Ciencia y Tecnología, 2000-2002", *Documento Conpes 3080,* Bogotá.

Departamento Administrativo Nacional de Estadistica, 2005. Innovación y Desarrollo Teconológico, Segunda Encuesta de Desarrollo e Innovación Tecnológica, Bogotá.

Ministerio de Educación Nacional, 2006, http://www.mineducacion.gov.co, Bogotá.

Observatorio de Ciencia y Teconología, 2005, http://www.ocyt.org.co.

UNESCO Institute for Statistics, 2006,: http://www.uis.unesco.org.

United States Patent and Trademark Office, 2004, Patent Statistics Report, http://www.uspto.gov/web/offices/ac/ido/oeip/taf/reports.htm ,Washington, DC.

Vestergaard, Jakob, 2005. Innovation and University Interaction with Industry in Colombia, unpublished study commissioned by World Bank.

World Bank, Knowledge Assessment Methodology (KAM) dataset.

World Bank 2005, Maloney, William F. and Perry, Guillermo, "Towards an Efficient Innovation Policy in LAC", Office of the Chief Economist for LAC, World Bank.

World Bank 2004, "Country Innovation Brief: Colombia", Office of the Chief Economist for LAC.

World Bank 2003, Colombia, The Economic Foundation of Peace, World Bank.

World Economic Forum 2005. Global Competitiveness Report 2005, Geneva, Switzerland.

The Financial Sector[157]

Abstract: An improved legal and regulatory framework, better supervision capabilities, and an overall positive macroeconomic conditions over the past five years have contributed to strengthening the financial sector In particular, the banking sector, having been severely affected by the financial crisis of the late 1990s, has recovered in terms of portfolio quality, profitability and prudential management. With issues of stability mostly addressed, the main policy challenge now is to foster deepening of the financial sector, as large segments of the economy still have only limited access to financial services, and the financial sector has increased its exposure to the government at the expense of intermediation toward the private sector. Policies in this area should concentrate on lowering the costs associated with financial sector activities, while ensuring that supervision continues to anchor financial sector growth on a solid foundation. This includes reviewing the impact that the tax on financial transactions is having on financial sector development, as well as the effect that interest rate caps and bankruptcy procedures has had on the supply of credit. As the sector seeks to diversify beyond banking as key intermediation mechanism, the new Administration should (i) continue to foster transparency and competition among administrators of the private pension system; (ii) develop an adequate regulatory framework for providers of annuities during the payout phase of pensions; and (iii) implement the recently enacted legal reforms seeking to promote the growth of local capital markets. As the financial system continues to move away from specialization and toward consolidation into conglomerates providing all types of financial services, consolidated supervision of these conglomerates will also be necessary.

[157] This chapter was written by Juan Carlos Mendoza with the collaboration of Augusto de la Torre.

Introduction

Most of the key challenges resulting from the crisis have been addressed. At the time of the financial crisis in the mid-1990s, the government was faced by two key challenges:

- reducing and extinguishing potential fiscal liabilities derived from the emergency measures taken during the crisis; and
- developing new regulatory and supervisory strategies that would lower the risk of a new crisis occurring, and create the tools to manage another crisis if one should occur.

The first challenge has been addressed through the process of liquidating most of the assets and banking institutions that were left in the hands of the government, as part of the restructuring and recapitalization of the banking sector. The reform process to address the second challenge has been anchored in Law 795/2003 which includes banking governance reforms and an enhanced framework to carry out consolidated supervision of financial groups.

Two priority challenges. Financial deepening and financial sector competitiveness will be at the top of the economic policy agenda. A positive macroeconomic performance, helped by historically low interest rates and high levels of liquidity, offers the Colombian authorities a window of opportunity to define and implement reforms in the financial sector that will boost the country's competitiveness and increase access to financial services for a broad cross-section of society. The role of the financial sector in mobilizing savings towards productive investments is essential to ensure continued job growth, particularly at a moment when negotiations of free trade agreements are expected to increase both opportunities and competitive pressures. Furthermore, access to financial services is, in many cases, the key to unlocking the potential of individuals whose entrepreneurial ideas require capital, as well as to enable families to save for unexpected emergencies or old age, or gain access to housing. Vision 2019, the Government's long-term strategy document,

highlights financial deepening as "an essential objective of the economic growth agenda, as low levels of credit constraint overall economic development."

The notion of financial deepening refers to the volume of financial intermediation as well as to the variety of financial services offered and the range of financial needs being addressed. The theme of financial sector competitiveness encompasses a broader set of issues, including efficiency in the production of financial services and the ability to offer a differentiated set of products that can address the needs of businesses and individuals. This Note gives an overview of the current state of the financial sector, including challenges facing the sector and the main areas for policy action.

Overview of the current situation and challenges

Recovery from the crisis. Economic growth, a successful recapitalization scheme and the improvement of the supervisory framework have helped the Colombian banking sector recover from the severe crisis of the late 1990s. The reforms following the crisis helped avert a generalized banking sector collapse and have since provided the Government with more effective tools to prevent or manage another crisis, thus minimizing direct fiscal costs and contingent liabilities should another crisis occur. Portfolio quality, solvency and profitability of the banking system have improved to pre-crisis levels: non-performing loans which peaked at 16.3 percent of the banks' portfolio in late 1999, stood at 3.4 percent in mid 2006. During the same period, the Return on Equity (ROE) increased from minus -32 percent to +20 percent. The Capital Adequacy Ratio (CAR) of the system stood at 13 percent in mid 2006.

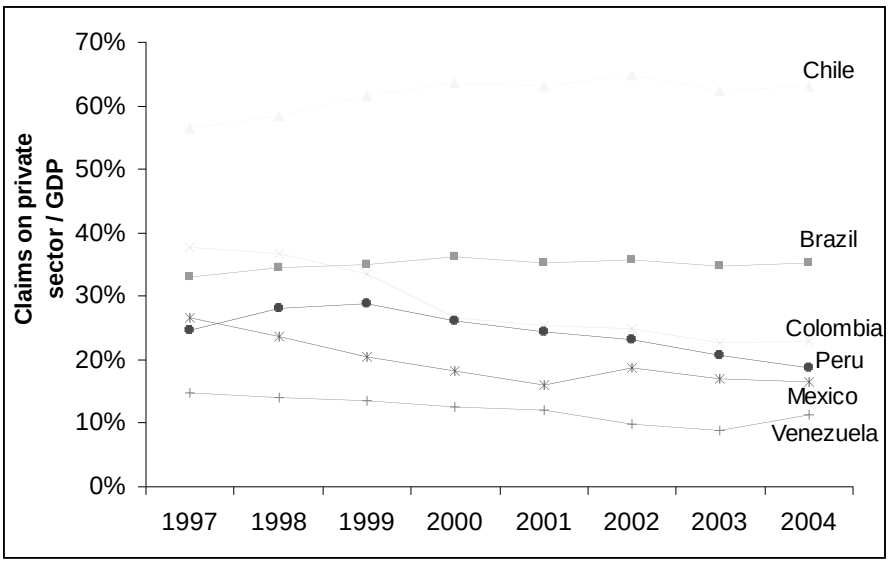
Moving toward consolidation. The financial system continues to move away from specialization and towards consolidation into conglomerates providing all types of financial services. The Colombian financial system had historically developed under a specialized model. However, during the last decade, the system gradually evolved towards a more universal banking structure ("*multibanca*") via a process of consolidation and entry of foreign financial intermediaries that has been partly supported by new laws promoting the merger of commercial banking and other financial activities. At the same time only around one half of the 105 credit institutions at the end of 1998 were still in existence as of mid-2005; the remainder were merged, purchased by commercial banks or closed, primarily as a result of the 1998-99 crisis. Most of the burden of adjustment fell on the smaller and more specialized entities (i.e. financing and leasing companies, financing corporations and housing banks) that followed very distinct and heterogeneous business models.

Intermediation. Intermediation to the private sector has fallen while average lending rates have stabilized after a period of decrease. Credit to the private sector has fallen as a share of GDP, and there is little sign of a real recovery in lending to businesses. Claims on Colombia's private sector dropped steadily from 27 percent of GDP in 2000 to 23 percent in 2004. Though this level is higher than several Latin American peers such as Peru or Mexico, Colombia still trails behind Chile (63 percent) and Brazil (35 percent). As a share of total domestic credit, claims on the private sector fell from 75 percent in 2000 to 67 percent in 2004, reflecting the credit expansion of the public sector. The total loan portfolio has started to expand recently in absolute terms, even adjusted for inflation. But the fastest growth has come from the consumer segment, not the productive sector (Figure 1). This stalling in the development of the financial sector is particularly acute in the housing finance area. The

total mortgage portfolio of banks stands at about 6 percent of GDP, about half of the level where it was before the crisis of the late 1990s. Despite a recent boom in the construction sector, Colombia still faces a large housing deficit and the financial sector is playing only a very limited role in providing financing for new construction. The average lending rate has stabilized in nominal terms at about 16 percent per annum during the last two years, slightly below the Latin American average of 17 percent.

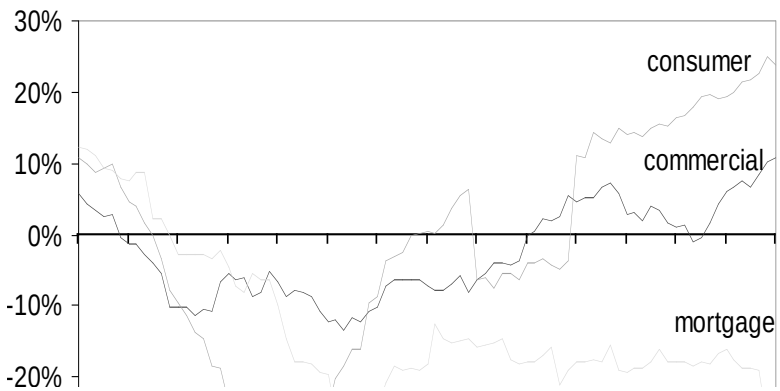
Figure 1. Evolution of Credit in Colombia

Credit to the Private Sector (percent of GDP)



Source: IMF.

Annual Growth of Real Total Loan Portfolio



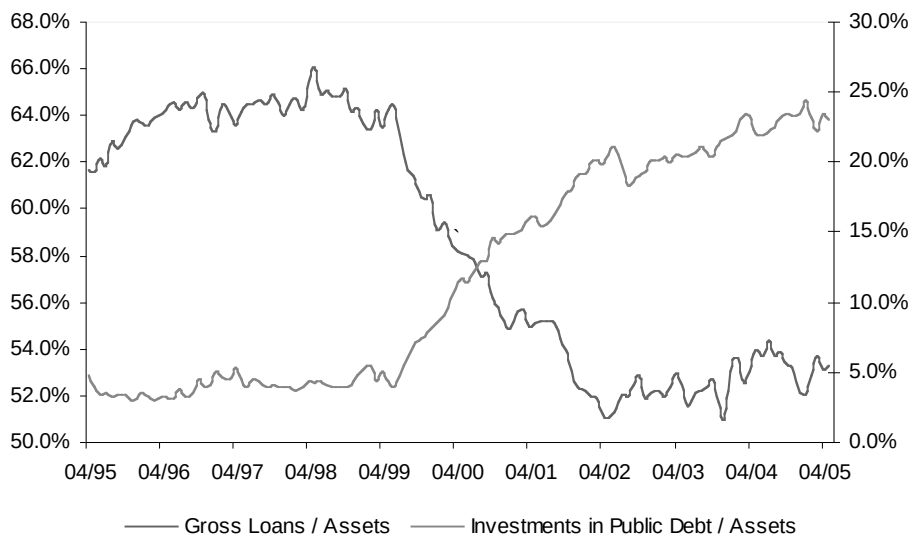
Source: Asobancaria, World Bank analysis.

Use of financial services. Individuals' use of financial services has declined. Furthermore, disintermediation is evident from a slight decline in the prevalence of bank accounts: in 2003, there were 28.0 savings accounts and 4.4 current accounts per 100 people in Colombia, down from 30.5 and 4.7, respectively, in 2000[158]. In addition, cash in circulation (held by the public) has increased, from 48.5 percent of the monetary base in 1998 to 70.8 percent in 2003.

Increased exposure to government bonds. The financial sector has increased in exposure to government bonds and moved away from the real sector. Since the crisis, banks have found themselves unwilling to lend but extremely liquid, while demand for domestic financing by the government has increased. The resultant replacement of private sector loans with government bond holdings in bank balance sheets has altered the nature of the risk confronting the banking sector and represents a lingering legacy of the crisis. The fiscal costs of the crisis and the lower demand for credit, as elsewhere in Latin America, have increasingly transformed credit risk exposure into sovereign risk exposure, as there are elements of crowding out by the public sector (Figure 2). Private pension funds, now with almost as many assets as the banks, are holding the maximum amount of government assets that regulations allow them to have.

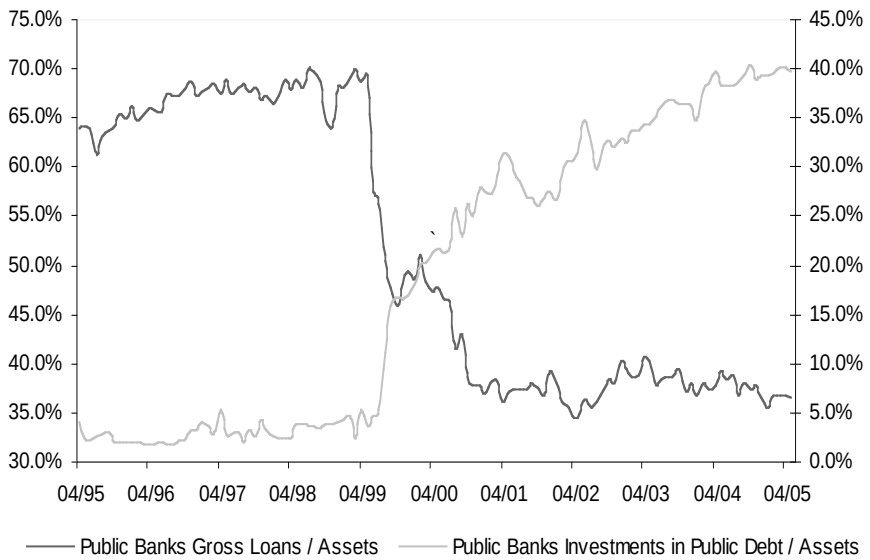
Figure 2: Composition of Domestic Credit and International Comparison of Public Sector Debt

(a) Composition of Banks' Assets

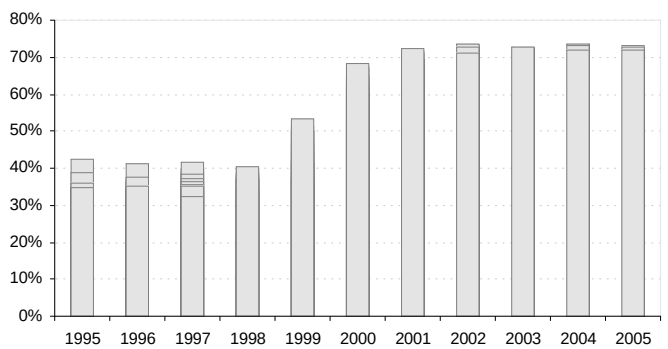


[158] Asobancaria Monthly Reports

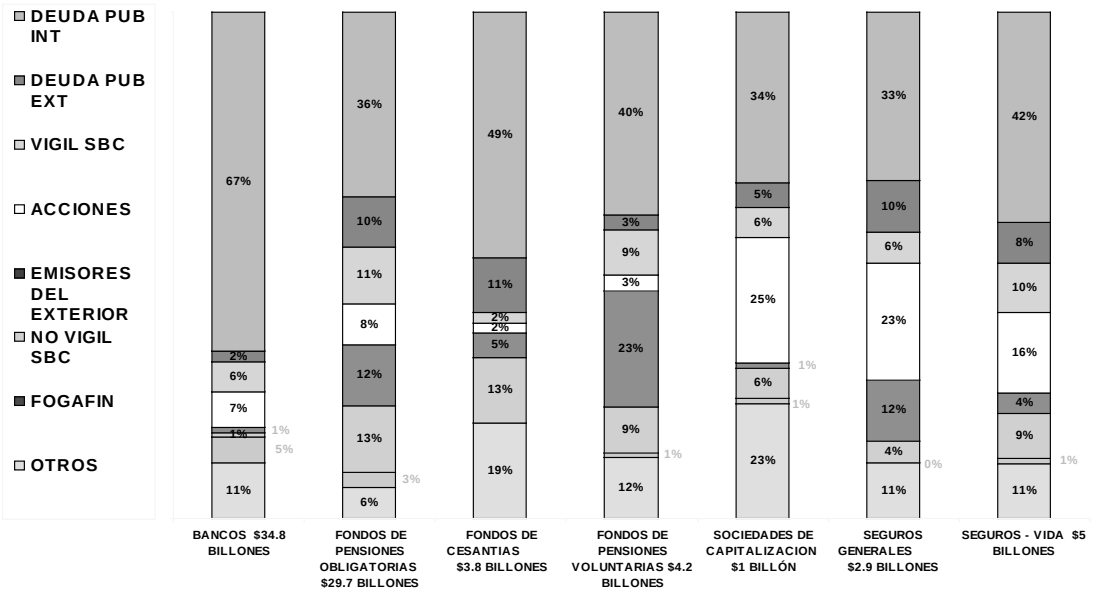
(b) Public Banks' Composition of Assets



(c) Public Debt as a Percentage of Banks' Investment Portfolios



(d) Distribution of Assets in the Financial Sector



Source: Superintendencia Financiera, World Bank Staff

Private capital markets. The development of private capital markets has lagged and remains a relatively small source of financing for firms. In the last three years, yearly issuance of private bonds have averaged about US$1Bn/year though this has been concentrated mostly in three or four large issuers. Only about five percent of financing of large firms comes from domestic capital markets (compared to 12 percent for Mexican firms, for example). Firms limit the use of capital markets as an alternative source of financing in part due to the high transaction costs associated with issuances, reluctance to deal with disclosure and corporate governance requirements and the lack of awareness of the advantages of this source of financing. One of the consequences of this underdevelopment of the capital markets is that companies rely mostly on short-term finance, either from suppliers or from the banking system. Capital markets is the ideal mechanism to extend loan tenors and reliance on short-term financing tends to decrease the competitiveness of Colombian firms by limiting the time horizon of their investments.

The private pension system. Assets held by the private pension system have grown to about 20 percent of GDP, but fulfillment of the expectations associated with the system remains mixed; and limited industry competition and uncertainty regarding payout phase mechanisms may hinder its development. Part of the rationale behind the reform carried out more than a decade ago was that the creation of this system (in particular, the "second pillar") would generate a source of long-term financing. However, government debt remains the largest asset class held by pension funds. Given that an important component of this debt goes to fund pension liabilities accrued to the government under the "old" system, this second pillar is in practice funding the old pillar. The private pension administrator industry is characterized by very low levels of competition, with all companies having an

identical commission structure and where return levels have very little correlation with size of each fund. This suggests little competition on price or returns. In addition to the negative impact this lack of competition may have on current affiliates, it hinders further development by diminishing efforts to grow non-mandatory contributions or to foster the use by administrators of more sophisticated financial instruments, which would both optimize returns for affiliates and facilitate capital markets development. As affiliates under the current private pension system begin to retire, the lack of a developed annuities industry will become evident, a situation exacerbated by inadequate existing regulation for life insurers and the dearth of capital markets instruments that would facilitate the design of annuities products.

Key policy issues for action

Deepening the financial system. Increasing the depth and efficiency of the financial system will require lowering the costs associated with financial sector activities, continuing implementation of policies for markets development while ensuring that supervision continues to be strengthened. Current restrictions to financial activities, including different forms of financial taxation, directed investments, limits on interest rates and inefficient insolvency procedures, need to be addressed to allow increased intermediation and lower borrowing costs. The newly proposed *Banco de Oportunidades*, which in spite of its name will not be a bank but a set of policy strategies that the government will implement to foster financial sector deepening by addressing some of these restrictions and facilitating financial transactions, constitutes an effective initial step that, however, still requires further development and consensus among the different government agencies involved as well as the financial sector. The recently approved Capital Markets Law needs to be implemented to facilitate the development of the longer-term instruments that borrowers and investors, particularly pension funds, demand. Finally, the enormous gains in the areas of financial sector supervision and regulation that Colombia has made in the last five years need to be consolidated.

The taxation framework. The taxation of financial transactions needs to be reviewed to ascertain the impact it is having on financial sector development and fiscal resources. While other factors may also be at play, the imposition of the tax on financial transactions coincides with the beginning of the process of disintermediation. The tax (now at 0.4 percent) may have altered the composition of the monetary base and impeded the smooth functioning of the payments system. As has been the case in other countries, the efficiency of the tax decreases very rapidly as individuals either leave the financial sector of identify mechanism to avoid taxable transactions. At a moment when there are initiatives to promote the use of the financial sector to thwart tax avoidance (e.g., promoting the use of electronic retail payments mechanism to lower the level of value-added tax evasion), disincentives to using the formal payments system generated by the transaction tax could ultimately reduce total net tax income. Given current fiscal constraints, reforms involving taxation have been difficult to carry out, and the lack of net impact analysis of fiscal revenues of financial sector taxation policies has made the policy discussion more complex.

Credit policies. Policies, including Constitutional Court decisions, meant to protect creditors may actually be limiting the supply of credit to those who need it the most. In particular, the caps on interest rates can constraint the supply of credit for higher-risk activities. The Constitutional Court decision in 2000 imposing a ceiling on mortgage lending has limited

the re-activation of housing lending. As long as this cap exists, this segment of the market will not really recover without additional support, such as housing subsidies, as banks are unable to adequately price their risks. In addition, the anti-usury cap specified in the Commerce Code sets interest rate limits that make unlikely further expansion of lending to riskier activities of primary importance for economic development, such credit to small and medium enterprises.

Consumer protection. An alternative to interest rate caps could be enhanced consumer protection rules in the financial sector. International evidence suggests that interest rate caps not only limit the supply of credit by regulated institutions, but that they ultimately drive borrowers into using unregulated lenders, many of which charge interest well above the rates that would be charged by regulated institutions if they were allow to appropriately price their risks. A better alternative could be to continue improving the requirements for effective rates disclosure by financial institutions, a process that has already been initiated by the *Superintendencia Financiera* but which needs to be extended to all financial products, particularly those that can be more complex for new borrowers, such as mortgages. Building the necessary political consensus to move ahead in this reform area is, however, a complex task that will require educating policymakers, the judiciary, and the public about the negative impact of current interest rate caps.

Reorganization and insolvency procedures. Credit to the private sector would benefit from the revision of the legal framework for reorganization and insolvency procedures. The current insolvency mechanism, Law 550/99, was approved as a temporary measure during the last financial crisis, and sought to protect debtors against financial creditors at a moment when a severe economic meltdown had to be prevented. However, in the longer term, this has created a disincentive to financial institutions to reactivate lending, given the uncertainty associated with recovering debts that the current Law generates. The slowness of the reorganization process also affects the viability of companies that could emerge from this process. Of the 901 cases of corporate filings for reorganization that have occurred in the period 2000-June 2003, only 27 percent have successfully reached a reorganization agreement. Only 22 cases have successfully completed the restructuring program and have effectively returned to ordinary activity. The Companies Superintendency (*Superintendencia de Sociedades*) has been working on a draft bankruptcy law that, among other things, will reduce the time required for restructuring and liquidation procedures and align the processes with international standards. Law 550/99 has been extended temporarily until the end of 2006 and thus there is currently a window of opportunity to finalize the design of a more effective insolvency mechanism. The recent submission to Congress of a new Insolvency Law is the first step in this direction, and the Administration should ensure that this initiative is not deformed during the legislative process.

Private pensions. The efficiency and viability of the accumulation and payout phases of the private pensions funds need to be improved to ensure better alignment of incentives between pension administrators and affiliates. This will require a series of regulatory changes seeking to foster increased competition and price transparency by pension fund administrators during the accumulation phase. The set of issues associated with the payout phase is more complex. The main financial instrument used in this phase, an annuity providing a stable periodic cash flow to retirees, remains underdeveloped in Colombia. This is in part due to the fact that recent retirees still had the opportunity to move back into the fully funded "old" system. However, as the system matures, it will become essential that

local financial markets can support the type of longer-term financial instruments that insurance companies will need to fund these annuities. Furthermore, the regulatory and supervisory framework for these insurance companies needs to be upgraded, particularly given the insolvency risk that could be associated with a new product, for which these companies may not have the necessary risk management skills.

The Securities Law. The process of implementation of the new Securities Law needs to be finalized as an element necessary for capital markets development. Growth of the private fixed-income and equity markets depends on many factors, and the Administration should have realistic expectations with respect to the short-term impact of the Law. However, implementation of the Law is an important step in this direction. In particular, the issuance of decrees implementing the Law, a process already underway, needs to be finalized particularly regarding issues related to the new *Superintendencia Financiera* supervisory powers; procedures for the custody and settlement of securities; qualification of financial market intermediaries; and investor protection rules and corporate governance rules. While in the very short term, some of these changes may actually impose higher costs on market participants, the framework provided by the Law ultimately increases the attractiveness of Colombian capital market issuances to investors, which should lead to lower financing costs and longer tenors.

Superintendencia Financiera. The ongoing merger process that created the *Superintendencia Financiera* needs to be conducted in a way that not only limits disruption, but also promotes progress in governance and technical capabilities. Successful implementation of the merger will require that the new body receive additional resources to develop infrastructure, organizational arrangements, procedures, and professional skills consistent with the new strategy. The technical and organizational challenges for the final implementation of the plan remain significant if the ultimate goal of the merger – improved consolidated supervision – is to be achieved. In particular, the design of new internal processes should seek to avoid the potential for creating silos in the new organization, which would prevent a more integrated view of the risks facing the supervised institutions. Furthermore, the two institutions have, in the last few years, fostered the development of a group of technically solid individuals. One of the main risks in the merger processes is that the *Superintendencia* may lose this human capital if the process becomes too disruptive.

Consolidated supervision. To fully reap the benefits from the creation of the *Superintendencia Financiera,* further progress is necessary in the development of consolidated supervision of financial conglomerates. The regulatory and supervisory functions need to continue developing to reflect the evolution of the financial sector structure toward financial conglomerates, as the walls separating different financial services are brought down, since the tearing down of these walls allows the spread of risks among components of the conglomerates. The *Superintendencia*, including the newly created *Delegatura* for Conglomerates Risk, needs to be provided with an adequate regulatory framework to ensure that supervisors can have access to all the information necessary to assess the total risk of a conglomerate. The *Superintendencia* also needs to continue developing the integrated risk measurement tools necessary to monitor the increasingly complex risk structure of conglomerates.

Enforcement of credit contracts. In the longer term, the Government should continue to address broader issues surrounding the enforcement of credit contracts. Particularly with

respect to housing finance, the perceived legal instability derived from court rulings which can void certain credit contracts, as well as the slow execution of credit guarantees, has constrained the supply of credit. Addressing this issue can be complex, as it implies the need to both create a more solid creditor rights framework, and to enhance the capabilities of the courts to enforce contracts more speedily.

Rural Competitiveness and Poverty Reduction: A contribution to the construction of the Internal Agenda for Agriculture and the Rural Economy in Colombia[159]

Colombia's rural sector has enormous growth potential and can contribute to rural poverty reduction and national political stability. This potential, however, has long been overlooked. Increased trade opening deriving from international agreements presents new challenges and opportunities for making use of this potential. On the one hand, it opens new prospects for products with a comparative advantage, from which the poorest rural sectors may benefit. On the other hand, it subjects importable products to greater competitiveness, from which negative effects may result if there is no increase in domestic competitiveness and no production reorientation. Taking advantage of export opportunities, improving competitiveness, and reorienting production require a strong ***Internal Agenda.*** *The purpose of this Note is to contribute ideas to the Internal Agenda under construction by the Colombian Government. We recommend that three aspects be considered for this Agenda: 1) increasing and restructuring public agricultural expenditure, focusing it on the provision of public goods instead of private subsidies, in order to more broadly benefit rural areas and especially to allow the disadvantaged to participate in the new opportunities; 2) reorienting the system of policy incentives in favor of products with a competitive advantage and export potential, in a manner that may benefit small producers, which require greater efficiency in factor and product markets; and 3) correcting the agricultural sector bias of rural policy toward a policy focused on territorial competitiveness that would include not only agriculture but the entire rural economy. In line with this, we propose that fiscal efforts to respond to the challenge of liberalization focus on enhancing competitiveness with equity rather than on direct income support to farmers. Three lines of investment are advocated: on public goods to raise the general competitive conditions of rural areas; on farm modernization to help previously protected farmers to be competitive; and on special programs to improve the competitive conditions of small farmers.*

[159] This chapter was written by Jose Maria Caballero with the collaboration of Matt McMahon, Natalia Gomez and Alvaro Balcázar.

Introduction

The rural sector is key to Colombia's future, but its large growth potential has long been overlooked notwithstanding its significant effects on the rest of the economy given the ability of agriculture to involve other sectors and to impact income, poverty, migration, and security. A recent World Bank study (de Ferranti et al, 2005) shows that the contribution of the rural economy to overall growth and poverty reduction is much greater than its share in GDP. The potential impact on poverty is especially high in Colombia due to its comparative advantages in labor-intensive agricultural activities. An agricultural take-off based on such advantages would strongly affect employment, wages, and ultimately rural poverty. The new opportunities could benefit both large- and small-scale agriculture, the key challenge being to effectively connect small farmers with the opening of opportunities for rural competitiveness. Also important in the Colombian context is the effect that strong, equitable rural growth would have on the institutional and political stability of its countryside[160].

The signing of the Free Trade Agreement (FTA) with the United States makes it urgent to focus policy attention on the rural economy, for competitiveness conditions will drastically change, and there is a risk that inequalities may deepen. The trade opening of the 1990s was partial and incoherent, and lacked the necessary continuity to promote a take-off of the rural economy and contribute to equity. Hence, it is now perceived as a lost opportunity (see Jaramillo, 2001, and Brizzi *et al* 2003). This was partly the result of trade opening not being accompanied by strong investments in rural public goods and of measures to make product

[160] The National Planning Department of Colombia has prepared a long term development strategy called *Colombia Visión 2019*. The document recognizes the historic contribution of agriculture and the rural sector to the economic development of the country, as well as its current potential to promote growth. The strategy proposes using the comparative advantages of agriculture to generate new opportunities to benefit the poor, promote the legal occupation of the territory, and improve security conditions. A number of challenges are indicated with which those discussed in this Policy are stronly consistent. They include: a) increased competitiveness and access international markets; b) more efficient land use; c) access to financial services for the rural poor; d) technological innovation; e) diversification of rural incomes; and f) institutional strengthening for an efficient performance of product and factor markets.

and factor markets more efficient, and facilitate access to them by small farmers. It would be useful to learn from this experience and consider it in the design of the Internal Agenda to accompany the FTA[161]. But even if the treaty is finally not carried through, the Internal Agenda will continue to be important because of the need to harness the potential for development and well-being latent in the rural sector.

The objective of this Policy Note is to contribute some ideas to the Internal Agenda under construction by the Colombian Government. Before doing that, it is useful to point out two things. The first is that by rural economy we refer not only to agriculture but to the multiple activities of the rural population, including those of rural cities. Second, Colombia is extraordinarily diverse, with a great variety of regions and rural areas. The Internal Agenda must recognize this diversity, and the implementation of general policies must result in specific measures and investments that make use of the different potentials of the various rural territories.

This note follows on a similar one (Brizzi *et al,* 2003) written in 2002 as part of a wider collection of policy notes prepared by the World Bank to contribute to the policy discussion following the May 2002 Colombian Presidential Election (Giugale *et al*, 2003). Many of the themes in that note are still relevant today and reoccur in the present one. In particular, much of the diagnosis of the situation of agriculture and the rural sector, the potentials of Colombian agriculture, the need to improve the operation of factor markets to align incentives with comparative advantages, and to directly address the issues of small farmers and the rural poor, flagged in the 2002 note, are also mentioned here. The present note, however, focuses on the elements considered central for the internal agenda, and opens a new theme--the need to correct the agricultural bias of rural policy. The situation in the Colombian countryside has improved since the previous note, with recovered agricultural growth and better security in rural areas. Conditions for successful agriculture and rural development policy are hence more favorable today, and there is also the urgency of a policy overhaul to respond to the FTA.

What type of Internal Agenda?

At the time of writing this note, the FTA with the US had been finalized and was waiting for approval by the legislative branch of both countries. Intensive activity was going on within the Colombian Government to build an internal agenda for the agricultural sector to mitigate the potential negative impacts of the agreement and better exploit its opportunities.

It is in this context that the *Agro, Ingreso Seguro* program was presented to the country in broad terms by President Uribe in early March 2006. The program includes measures of direct support to producers (per hectare for some products and per ton for others); special investment support through the ICR as well as sanitary support for chicken and pig producers; and preferential credit to switch to a different line of production. Supports are

[161] The Government of Colombia, under the coordination of the DNP, is preparing a policy strategy aimed at strengthening the competitiveness of Colombia's economy to allow the country and its productive sectors to take advantage of the opportunities and address the challenges presented by the signing of a FTA with the United States. This exercise is known as the *Internal Agenda.*

intended to expand over a period of ten years. The annual value announced is 500 billion pesos, equivalent to US$ 218. This amount is around 85 percent of the 2005 budget of the Ministry of Agriculture. Of this total, 70 percent (350 billion pesos) is earmarked to go to direct income support to farmers.

Three aspects are important in an internal agenda to prepare for trade liberalization: (1) to make the best possible use of the new trade opportunities, (2) to limit the impact on the incomes of previously protected farmers, and (3) to ensure that the gains, both from trade opening and from the internal agenda measures put in place to respond to it, increase equity rather than reduce it by bypassing small farmers. We believe that a broad series of measures centered on increasing competitiveness and calibrated to reach not only medium and large but also small farmers is the best way to address the above aspects. An effective internal agenda along these lines would need to modify agricultural and rural policy in three directions:

Increase and restructure agricultural public expenditure to bring its level in line with the sector's potential, and to redirect expenditure in subsidies to private goods toward the provision of rural public goods of general benefit.

Redirect agricultural policy toward products with comparative advantage, so that incentives go to products which are competitive rather than to those which are not. Special efforts are needed to promote the competitiveness of small farmers to help them become rural entrepreneurs. This requires promoting efficiency in product and factor markets.

Correct the agricultural bias of rural policy toward a policy of territorial competitiveness which includes not only agriculture but the entire rural economy.

In correspondence with the above reorientation of policy, we advocate in favor of concentrating the internal agenda efforts in expanding three types of rural investments: (1) public goods (like research and extension, infrastructure, SPS protection, food safety and quality enhancement systems, market information systems, and factor market improvements), (2) farm modernization to help previously protected farmers to become competitive, and (3) special programs to improve the competitive conditions of small farmers.

It is clear that there are political difficulties in such a policy reorientation, which may affect powerful interests, and that the increase and composition of rural expenditure advocated in this Note competes with other uses of public funds in a period of severe fiscal restrictions. In particular, the three lines of investments indicated above compete strongly for funds with direct income supports to farmers. We believe, however, that the best way to assist previously protected farmers to be successful in a liberalization context is to help them become competitive in their current line of activity when the underlying conditions are favorable, or to switch to other lines of activity in which the country enjoys comparative advantage. This is not achieved through income support via direct transfers, but through the type of investments advocated in this Note.

Compensatory income support schemes, like for example the PROCAMPO program in Mexico, are often favorably assessed when compared with border protection or price supports, because they are delinked from the price system and hence not carriers of market

distortions. This is correct, but there are other green box instruments which are equally delinked and seem much more appropriate for an economy such as Colombia's. The investment lines mentioned above are that type of instruments. In comparison with them, direct income supports have several shortcomings. First, they are extremely difficult to discontinue, tending to become a perpetual rent to some sectors of farmers[162]. Second, they are regressive, favoring large farmers more than small ones[163]. Third, they are not conditional on farmers improving their competitive performance, and therefore are likely to slow down the adjustment process to the new market conditions[164].

European countries and the US, which are the main users of income support programs, may pay their farmers a rent which abstracts from equity and competitiveness considerations, but it is doubtful that a country like Colombia can afford this. The figures involved are large. In the case of PROCAMPO, the subsidy amounted to around 5 percent of agricultural GDP for the average of 2001-04. This percentage applied to Colombia gives a figure of US$ 539 million for 2004, which is more than double the budget of the Ministry of Agriculture in 2005. Even the US$ 153 million currently earmarked for direct supports to farmers under the *Agro, Ingreso Seguro* program, seems a very high figure when compared for instance with the US$ 169.3 million of investment budget of the Ministry of Agriculture in 2005.

The risks therefore should be flagged of direct support payments to farmers crowding out investments which are essential for promoting competitiveness with equity of the Colombian agricultural economy, and of becoming a perpetual and regressive rent to some sectors of farmers. The type of internal agenda that we advocate in this Note is hence centered on helping farmers to be in a condition where they can compete, not on supporting them to keep going in activities where they cannot.

Challenges and Opportunities

The Colombian rural sector:

Is rich in natural resources and comparative advantages. According to IGAC (2004), lands suitable for agriculture total 9.6 million hectares, of which only about 4.5 million are cultivated. Added to these are 9.2 million hectares suitable for grazing and nearly 28 million hectares suitable for forestry[165]. According to the IIASA/FAO land use data, Colombia has 7.1 hectare of very suitable, suitable and moderately suitable crop land per unit of agriculture laborforce, compared to 1.6 in Chile, 1.7 in Peru and 2.3 in Mexico (IIASA/FAO, 2002). Due to different soils, climate, and biodiversity, a broad range of activities have

[162] Thus, for instance, it is increasingly becoming clear in Mexico that PROCAMPO will not be discontinued when its time comes up in 2008. In the political campaign for the July 2006 Mexico presidential election, the candidates of the three main parties have offered not to discontinue the subsidy.

[163] In the case of PROCAMPO, in 2002, 51 percent percent of the subsidy went to households in the top 3 consumption deciles, and 28.2 percent to households in the bottom 3 consumption deciles. (World Bank calculation based on ENIGH 2002). Regressiveness would likely be much higher in Colombia because of the much more skewed distribution of cropping land in Colombia than in Mexico.

[164] Using again the Mexican example, we should recall that PROCAMPO has been accompanied by a parallel program, *Alianza para el Campo*, oriented to on-farm modernization investments.

[165] Not including 25.5 million hectares for conservation (natural forest) and 40.1 million hectares of special management (natural parks, indigenous reserves, and the collective titles of Afro-Colombian communities).

comparative advantages: perennial crops such as coffee, oil palm, and forest species; various flowers, fruits, and vegetables characterized by their high density value and intensive use of labor; and livestock products such as milk and beef. The growth of these activities strongly promotes other, nonagricultural activities such as processing industries, services, commerce, and transportation, and through them the diversification of the rural economies, whose effects on employment, income, and well-being may exceed the direct impact of agricultural growth[166].

Has strong social and economic importance. The rural population is around 39 percent if one uses a definition based on a demographic density of fewer than 150 inhabitants per km^2 and more than one hour's distance to a large urban center (Chomitz, Buys, and Thomas 2005). Agricultural GDP is 13 percent of the total, but the rural economy as a whole (not including the mining or energy sectors), may represent about 20 percent of GDP[167].

But, in turn, the rural sector is the principal scenario:

- ***Of poverty.*** The incidence of poverty is highest and deepest in rural areas. In 2003, 69 percent of the rural population lived below the poverty line and 35 **percent** below that of extreme poverty. 42 percent of the poor resided in rural areas[168].

- ***Of the most serious and persistent conflicts in Colombian society:*** violence, illegal crops, drug trafficking, land concentration, displacements.

- ***Of limited opportunities for progress and well-being,*** thus favoring the different factors that generate conflict.

- ***Of underemployment and low productivity.*** According to DANE, in the first part of 2005 rural unemployment and under employment respectively reached 8 percent and 33 percent. In 2003 labor productivity in the rural sector was 47 percent of that in the urban sector[169].

- ***Of deficient land utilization.*** According to IGAC, 33 percent of land is used deficiently, in terms of both over- and under-utilization at different degrees of intensity[170]. Lands suitable for agriculture are generally used below their potential, while cattle raising uses more than three times the land suitable for this purpose.

And of a weak institutional presence in large regions, despite the improvements in recent years.

---

[166] John W. Mellor, 1999

[167] This is because nonagricultural activities contribute about 37 percent of the rural population's income, as shown by the Mission Against Poverty, based on the 2003 Quality of Life Survey.

[168] Data from the Mission Against Poverty.

[169] Measured as the ratio between GDP per economically active person in the rural sector and GDP per economically active person in the urban sector in 2003, using DANE GDP and EAP figures.

[170] Source: IGAC and CORPOICA. 2002.

The rural sector:

Shows a trend toward the stagnation of agriculture, despite its potential. Agricultural growth has been characterized by its volatility and by a long-term downward trend. During the 1970s the average annual growth was 4.5 percent, in the following decade it was close to 3 percent, and in the 1990s it only reached 1.1 percent.

Also shows strong regional differences. There are major gaps among regions in terms of indicators of well-being with no clear trend toward a reduction of these differences. According to the 2003 Human Development Report, the gap in the Quality of Life Index between Bogotá, the Valle and Atlantica Regions (mainly urban zones), on the one hand, and Chocó, Córdoba, Nariño, Sucrem, and Boyacá (mainly rural zones), on the other hand, varies from 20 to 30 points on a scale of 1 to 100.

The image that emerges from this brief diagnostic is one of a rural sector with a significant presence in the economy and society, which is the fundamental scenario of the poverty and conflicts that grip the country, and has a large and long-overlooked potential to contribute to national development and stability.

Colombia has recently signed a FTA with the U.S., has already signed trade agreements with MERCOSUR, and has shown interest in beginning negotiations with the European Union. Due to their productive structure, several sectors will find it difficult to face international competition. This may be the case of grains and soybeans. Other sectors such as flowers, palm oil, milk, and cacao are likely to be winners, due to their comparative advantages. Other sectors may also benefit but their profits are subject to effective access to international markets. This is the case of fresh fruits, vegetables, aromatic plants and spices, and beef. For these sectors, plant and animal health conditions and compliance with international protocols and standards of quality and safety are essential. Together, the balance between threats and opportunities appears highly favorable for Colombia. The Internal Agenda is essential for the opportunities created by trade agreements to become a reality, to ensure that the necessary readjustments are made as quickly and efficiently as possible, and to allow the potential benefits to be spread equally among the entire population, including the small farmers. The principal challenge of public policy is to reduce poverty through the effective participation of the poor in the benefits of agricultural and rural competitiveness.

It should be noted that in recent years progress has been made in the conditions and policies of the rural sector. First, the improved security situation in rural areas has had a positive effect on the functioning of markets and public services. Linked to this is a recovery of agricultural growth: agriculture grew 3.1 percent in real terms in 2003, 2.1 percent in 2004, and 3.0 percent in 2005. Despite very modest resources, new and interesting systems have been put in place for research, innovation, and technology transfer related to agriculture. The institutional organization of productive chains and the information systems linked to them have been promoted. Several programs are underway to help small farmers become entrepreneurs and link them with national and export markets. A new agency specializing in rural development, INCODER, has been established, albeit with a limited budget, to bring together services previously scattered among various agencies. Finally, there have been improvements in loan recovery and the rural financial system. These and other

advances offer a good starting point for the Internal Agenda, but important challenges still need to be addressed. They are presented below. Annex 1 presents a matrix of the key recommendations suggested in this Policy Note.

Harnessing the Potential of Colombia's rural sector in favor of the Poor.

Restructuring and Increasing Rural Public Expenditure

The structure of public expenditure has been strongly biased against the rural sector. Consequently, there is a wide gap in the allocations of public goods between rural and urban areas, resulting in a disadvantage in terms of opportunities for the rural population, and particularly for the poor. For example, according to the 2003 Quality of Life Survey, the gap in terms of the educational level of the economically active population in rural and urban areas is more than four years. The rate of school attendance between the ages of 12 and 15 is 22 points lower in rural areas; illiteracy among persons over the age of 15 is 14 points higher; health and social security coverage, in which Colombia has shown significant progress since the mid-1990s, continues to be 15 points lower in rural areas. The lack of roads or the deficient conditions of roads relevant for rural connections to markets[171] hinder the population's access to public services, makes these services more costly, makes products more difficult to sell, and limits economic opportunities.

From 1996 to 2005, the budget allocation of the Ministry of Agriculture and Rural development (MADR) and its dependent entities was highly volatile, with a downward trend, especially in its investment component. From a budget of US$829.5 m in 1996, it fell to US$256 m in 2005. The investment component decreased from US$711 m to US$169 m.

Table 1

Colombia: Budget from Ministry of Agriculture and Rural Development, 1996 – 2005
Millions of dollars

Total	**829.6**	**583.1**	**418.6**	**323.8**	**239.6**	**325.3**	**290.0**	**169.9**	**184.7**	**256.0**
Investment	710.8	450.1	256.1	160.3	111.2	214.8	185.5	88.3	117.0	169.3

Source: DNP and Ministry of Finance and Public Credit, from 1996 to 2002. Budget Law from 2003 to 2005.

The antirural bias of expenditures and in the provision of public services has implications for equity and efficiency, and limits the growth potential. The inadequate provision of public goods discourages private investment in farm and rural non-farm activities, given its complementarity to public investment. Many comparative advantages do not materialize due to insufficient support services such as research, technology transfer, agricultural and livestock health, and food safety. Access to international markets has been limited by non-tariff barriers in developed countries but also by Colombia's own deficiencies in plant and animal health, food safety, and in the logistic and information systems. Thus, Colombia has only obtained health risk approval in the United States for *uchuva* and *pitahaya*, while four other fruits (*granadilla*, *lulo*, passionfruit, and *feijoa*) and four vegetables (paprika pepper, celery, and chard) are in the process of being approved. These figures contrast with the 58

[171] According to the Ministry of Transportation, in 2003 there were only 100 meters of tertiary and secondary roads per km^2.

Colombian fruit species that according to the Ministry of Commerce, Industry and Tourism have market potential in the U.S.

In addition, the composition of rural public expenditure is little efficient. A large proportion of funds are allocated to subsidies and income transfers to producer groups with a strong capacity to exert pressure, at the expense of the provision of public goods. In the 2005 investment budget of MADR, out of US$108.2 million 62.5 percent is aimed at private subsidies, particularly for large producers, 7.8 percent at programs to support small farmers, and 7.5 percent at technology and technical assistance programs[172].

Roads are a vital public good for the competitiveness and growth of the rural economy. Bravo-Ortega and Lederman (2005) have estimated the impact of different public goods on productivity in the agricultural sector of Latin America and the Caribbean in the 1990s, and in the rest of the world between 1960 and 1999. Among various factors (decreased illiteracy, irrigation, roads, telephony, credit, and electricity), roads showed an appreciable difference, constituting the factor with the greatest impact. A 1 percent increase in road density generates an average increase of 0.42 percent in the agricultural productivity of Latin America and the Caribbean countries.

It is important to promote **road development** in Colombia, in accordance with the needs of agricultural and livestock production and the rural economy as a whole. This implies that simultaneously with the development of the primary network, the density and quality of the secondary and tertiary networks should also be increased. According to data from the Bureau of Infrastructure and Sustainable Energy of DNP, in 2003 the country's road network consisted of 16,000 km of primary highways (14.8 m/km^2), 64,000 km of secondary highways (57.5 m/km^2), and only 47,000 km of tertiary roads (42.3 m/km^2). This limited amount of tertiary roads reduces rural competitiveness and limits growth.

With regard to **human capital**, efforts to increase the coverage of primary education in the rural sector should continue. A good program in this regard is *Familias en Acción*, which provides a direct payment to mothers subject to their compliance with commitments regarding nutrition, education, and health care for their children. This type of program helps to decrease the high levels of early school dropout rates in rural areas by compensating a portion of the opportunity costs of school attendance.

It is essential to reverse the trend of decreasing resources for the **innovation and adoption of technology**[173]**,** and to consolidate the institutional capacity of the agricultural technology innovation system. The existence of specialized product research centers where producers participate in the financing of research is a valuable asset for the country. The system needs to be strengthened with more public resources allocated through competitive funding schemes. Colombia already has encouraging experiences in this area through the Technology Transfer Project (PRONATTA), continued in part by the Agricultural Transition

[172] Ministry of Finance and Public Credit. General Budget Law of the Nation, 2005. (Exchange rate: Col $2.300 per US$1.)
[173] In 2002 all components of the agricultural and livestock science and technology system, including agricultural and livestock health, received US$54.5 million, 27.2 percent of MADR's budget, reducing its allocation to US$34 million (18.6 percent of MADR's budget) in 2005.

Project now starting. Paying attention to the regional science and technology agendas is essential for regional competitiveness. It is also necessary to invest in the training of new researchers because the country has been suffering from a decline in the professional capacity of the research community for about fifteen years. Programs like those promoted by CENICAFE in alliance with foreign universities, merit consideration. A feasible goal for the next four years is to allocate public resources to agricultural and livestock research and technology transfer equivalent to at least 1.0 percent of agricultural GDP, which is close to the Latin American average. As mentioned before, much of the possibility of making many of Colombia's comparative advantages effective lies in the **development of the animal and plant health and food safety system**. It is therefore vital to strengthen the scientific-technical capacity of the system and the effectiveness of its operation, as well as the coordination between the public and private sectors. This should be one of the priorities of the Internal Agenda, with or without the signing of the FTA with the U.S. The health risk evaluation system, the preparation of mitigation and quarantine protocols, and campaigns to train and advise producers on good agricultural practices, merit special emphasis. The Agricultural Transition Project seeks to address these needs, but the resources allocated are insufficient for the scale of these needs.

Reorienting Agricultural Policy and Incentives to Benefit Small Farmers

Comparative advantages and opportunities for small farmers

Colombia's comparative advantages in agriculture lie in products from perennial crops (palm, rubber, cacao, fruits, etc.), in high-value, labor-intensive, perishable products (e.g., flowers, vegetables, potatoes, fruits, cotton in some regions), in some livestock products (milk, beef, poultry, and pork), and in forest plantations (tropical woods). On the other hand, Colombia shows comparative disadvantages in grain and oilseed production, which are characterized by low labor use per hectare and per unit of value, and high coefficients of imported inputs[174].

In contrast to its pattern of comparative advantages, Colombia's agricultural support policy is based on trade protection to products with comparative disadvantages. An estimated 90 percent of support to agricultural comes from border protection[175]. In recent years, direct support has been given to specific sectors, including compensation to flower and banana producers for the revaluation of the exchange rate, and payments to cotton producers for minimum price guarantees. Border protection has implications in terms of efficiency and equity. The cost of price protection falls on consumers, especially on the poor, and the effects may be regressive. A recent study (Balcázar et al, 2004) based on a general equilibrium model found that the protection received in 2001 by producers of yellow corn, sorghum, and soybeans made it possible to generate US$42 m of value added in these crops, but "*…consumers had to sacrifice a consumption of livestock products (meats, eggs, and dairy products) and other processed foods (such as fats and oils) equivalent to US$145 m.*" The same study showed that protection generates significant social costs from the standpoint of

[174] See: World Bank, 2003a.
[175] Ministry of Agriculture and Rural Development, 2004.

employment. The number of direct, full-time agricultural jobs lost because of protection of forage grains is estimated at 6,650. Agricultural products enjoying border protection represent 10 percent of the total cost of the consumption basket and 34 percent of the cost of the food basket[176]. Fabio Sánchez (1999, p. 10) estimated a 0.5 elasticity of poverty to the price of food in 1999. Border protection may also be regressive because poor peasants produce only small quantities, their production is less marketable, and are often net food buyers. The social cost of trade protection may greatly exceed its private benefits because of: (i) losses in efficiency due to the protection of sectors with no comparative advantage, (ii) less production and employment in productive chains, especially in the case of agricultural products that serve as raw materials for other goods, (iii) greater food vulnerability for the poor, and (iv) possibly, less sectoral employment.

Trade policies have been giving favorable prices signals to import competing crops, discriminating against products with export potential. Table 2 compares the indicators of comparative advantage and nominal border protection. While products with comparative advantage (DRC<1) have low levels of protection (NPC<1), products with comparative disadvantages have high levels of protection. For protection to be aligned with comparative advantage, the correlation between DRCs and NPCs should be negative. The correlation coefficient, however, is positive and equal to 0.57. Moreover, other support instruments such as credit and state intervention in domestic markets generally excluded the non-tradable agricultural sectors in which there is a larger presence of small farmers.

Table 2

Colombia: Comparative advantage coefficients and nominal protection per products 2001

Products	DRC	NPC	Products	DRC	NPC
Non irrigated rice	5.33	1.80	Milk	0.68	1.11
Barley	5.33	1.50	Chicken	0.67	1.17
Soya	2.92	1.64	Cacao	0.66	0.72
White corn	2.64	1.67	Passion fruit	0.64	0.65
Irrigated rice	2.49	1.85	Coffee	0.60	0.59
Wheat	2.13	2.11	Eggs	0.57	0.86
Yellow corn	1.88	1.91	African palm	0.56	1.24
Industrial yucca	1.78	3.38	Sugar cane	0.55	1.92
Sorghum	1.61	1.57	Potato	0.49	0.76
Traditional dry bean	1.10	1.07	Light tobacco	0.39	0.62
Cotton	1.02	1.15	Lulo	0.35	0.66
Pork meat	0.84	0.98	Mango	0.29	0.27
Industrial dry bean	0.83	1.11	Banana	0.29	0.62
Beef	0.82	0.79	Dark tobacco	0.27	0.48
Pitahaya	0.82	0.59	Citric	0.26	0.71
Industrial potato	0.79	0.95	Papaya	0.18	0.27
Green asparagus	0.73	0.57	Maracuya	0.17	0.26

DRC: Domestic resources cost. NPC: Nominal protection coefficient. Source: World Bank 2003.

[176] According to weights in the DANE's 1988 basic Consumer Price Index.

Table 3 shows the distribution of land between crops with and without comparative advantages, and their contributions to agricultural employment and income. Crops with a comparative disadvantage occupy one-third of the land contributing 10 percent to the employment and 13.5 percent to the output value of the crop sector. In contrast, export crops and crops currently non-tradable but with CDR<1, have nearly the same land share but contribute 4 to 5 times more to employment and 3 to 4 times more to output value.

Agricultural trade policy should aim at the progressive suppression of distortions. This requires using the Andean Price Band System (SAFP) as a stabilization mechanism only, suppressing its protection component. A system based on minimum prices for importables could eventually be adopted, with the calculation based on production costs in countries that are international price leaders. For exportables, price and income stabilization funds would be an option, in view of the valuable experience of the coffee fund, but avoiding compensating export price falls with domestic price increases.

Table 3

Colombia: Land assignation and Agriculture employment, 2004

Products	Cultivated area		Daily wage		Production Value	
	Thousands of hectares	percent	Thousands	percent	Millions of dollars	percent
Crops with DCR>1	1,373.4	33.8	34,367.1	10.6	1,183.2	13.5
Crops with DCR<1	1,507.4	37.1	163,711.1	50.3	3,931.3	45.0
Export crops	1,177.5	29.0	127,450.7	39.2	3,627.6	41.5
Total Agriculture	4,058.2	100.0	325,528.9	100.0	8,742.2	100.0

Source: Own calculations based on data from the MADR.

Price protection should be replaced by assistance to producers to facilitate their conversion to competitive activities or the introduction of the technical changes needed to achieve competitiveness. This requires defining criteria to determine the level, conditions, distribution, and duration of the supports. The distribution should be gradual, with levels decreasing as the scale of production increases. The instrument could be a combination of credit facilities, technical assistance and subsidy, and should be subject to a restructuring commitment, either technological in the same crop to achieve competitiveness or through a change to crops with comparative advantages. The subsidy part should be granted for the time estimated to be necessary to reconvert, and linked to the type of investment needed. Farm modernization should be a strict condition to access the support.

Factor market efficiency and of access to small farmers

For the growth potential of Colombia's rural areas to become a reality, small farmers must be included. Institutional conditions of access to productive factors have generally excluded small farmers from the growth processes promoted by technological revolutions or international market opportunities. There is a latent risk that small farmers may be excluded from the opportunities currently created by globalization and the eventual signing of the FTA with the U.S. Mexico's experience is instructive in this regard: NAFTA produced a strong growth in Mexico's agricultural exports to Canada and the US but small farmers did not receive the support needed to take part in the export boom and benefited little from it[177].

Most of the agricultural products in which Colombia has a comparative advantage are labor intensive. Thus, in principle, there are no economies of scale in primary production. Small- and medium-scale farms may be competitive in these products but need access to financial, technical, and organizational resources. There are successful programs promoting the competitiveness of small rural farmers. MADR's Support to Productive Alliances program and the Productive Projects program of the Presidential Agency for Social Action and International Cooperation are examples of the possibility of creating these conditions. These programs offer incentives to promote alliances between small farmers and processing and marketing companies. Both win with such alliances, as in the case of oil palm, fruits, and cacao, among others. These alliances, especially those promoted by FINAGRO, the Investment Fund for Peace, and USAID's alternative development programs, facilitate access to financing, technical assistance, training and improved crop management, as well as reliable markets for products. Many small farmers could change their noncompetitive traditional crops for others with comparative advantages and become small-scale entrepreneurs with the support of such programs.

Land Market. Land policy studies have indicated the restrictions on agricultural growth imposed by insecure tenure and a bad distribution of land[178]. Efficient land use requires conditions that facilitate the mobility of property rights, so that land can be utilized in more productive activities and by more efficient users. The efficient functioning of the land market is essential for this purpose.

Various factors influence the persistence of high land concentration and extensive forms of land use. First, commercial incentives have been favorable to activities that use land extensively, at the expense of labor-intensive agriculture. Also, land taxation has been and remains at very low levels, facilitating the speculative concentration of property. Finally, violence, which has caused displacement and forced sales through the use of threats and terror, and drug trafficking, which leads to large-scale land purchases to launder money, complete the map of this dilemma.

In the case of small farmers, there is vulnerability in land tenure deriving from the armed conflict and the lack of property titles. Under these conditions, there are few opportunities

[177] See "Mexico: Rural Poverty Study," World Bank, 2004.
[178] See, for example, Isabel G. Lavadenz and Klaus Deininger, 2003.

for land access through the market, which hinders the mobility of land as a production factor. Lease markets are active in terms of participants but not of area (15 percent of farmers participate, but the average area leased is 2 hectares, compared to 28 hectares owned by those who do not participate[179]). Sales occur mostly among intermediate levels, and thus have little effect as a means of subdividing large properties.

There are on-going efforts to improve the functioning of the land market and facilitate small farmers' access to land, which should be strengthened. Especially relevant are to accelerate the transfer of property titles, streamline the expropriation of lands acquired with illegal money, update and expand the coverage of municipal cadastres, and strengthen the capacity of rural municipalities to administer these cadastres. Accelerating the process of expropriation of lands acquired by drug traffickers or under violent pressure discourages speculative land concentration signals that legitimate property rights are protected. The program promoting land protection for populations displaced or at risk of displacement and the monitoring of property transfers in zones with a strong presence of armed groups, is a good instrument to protect property in the face of forced sale or violent encroachment, and should be strengthened.

Well defined and protected property rights create opportunities to support administrative decentralization and rationalize soil use. The real estate tax strengthens municipal finances and increases fiscal autonomy while penalizing land speculation. There is a legal framework allowing municipalities to use the real estate tax to obtain revenue, but most rural municipalities lack the technical or political capacity to administrate it effectively. Cadastre coverage should be increased and the capacity of rural municipalities to update their cadastres and effectively administer the real estate tax should be strengthened.

Financial Services. Rural credit in Colombia benefits a limited number of rural producers. Sources agree that only some 10 percent of rural producers have access to credit from formal financial entities, and some 20 percent utilize deposit services[180]. These rates are lower than those of countries with similar levels of development. Banks typically lend to medium- and large-scale rural producers, while small farmers and non-farm rural producers mostly resort to informal sources (money lenders, relatives, and friends) receiving small, short-term loans at high interest rates.

This limited coverage is in contrast with a physical presence of the financial network adequate for the existing needs. Financial institutions operate a broad network of offices and branches that cover over two-thirds of the country's municipalities and over 83 percent of the rural population. This physical coverage compares favorably with countries whose per capita GDP is considerably higher than that of Colombia (e.g., Mexico).

The contradiction between physical presence and limited access to financial services is mostly explained by the inadequate financial services offered by formal institutions compared to the type of demand from rural producers. Even institutions with a major presence in rural areas (such as Banco Agrario, Bancolombia, Megabanco, and others) have

[179] Idem.
[180] Quality of Life Survey 2003 and World Bank. 2003 (b).

been reluctant or slow to develop innovations that would allow them to adapt their services to rural conditions, especially to those of small farmers and low-income rural households.

To address the limitations of the rural financial market, public policies and interventions use ineffective tools and outdated approaches. The National Agricultural Credit System is structured around FINAGRO, which acts as a fund to rediscount bank loans. The rediscount system operates as a tax on the financial system's liabilities and introduces market distortions without achieving broad access by rural producers to financial markets Subsidies in the interest rate of loans rediscounted in FINAGRO, and the way in which investment incentives (ICR) and access to guarantees (FAG) are linked to the rediscount scheme, limit the market's potential to expand coverage and develop appropriate rural financial services. In so far as the incentives offered by public interventions are linked exclusively to credits rediscounted in FINAGRO, there are very few possibilities and incentives for loan agencies to develop financial products and services that are in line with the needs of the rural sector.

Expanding the coverage and improving the quality of financial services in rural areas requires revitalizing public intervention. FINAGRO constitutes a valuable institutional asset for the development of rural financial services. It has strong professional links with the banking system, has the know-how to evaluate the performance of rural financial institutions, and shows solid managerial capacity. Moreover, the limited coverage and scope of financial services vis-à-vis the rural economy does not derive from the availability of funds but from the little willingness of financial entities to issue loans and develop financial services adequate to rural needs. FINAGRO could be more effective as an instrument to promote the coverage and quality of financial services rather than as a second-tier agent to rediscount agricultural loans and as administrator of the ICR and FAG. A change in this direction would entail reorienting the revenue stemming from the current tax on the liabilities of the financial system (i.e. the Agricultural Development Titles). This revenue should go to promoting innovations and the development of service capacity of rural financial entities (banking and non-banking) rather than to rediscounting loans. Such an adjustment in FINAGRO's role should take place through a gradual migration process during which the institutional capacities required for promoting and developing rural financial services could be built or consolidated[181].

The Banco Agrario is another institutional asset with enormous potential as an innovator in rural financial services—especially microcredit[182]—suitable for small farmers and low-income rural households. Under its new role, FINAGRO could offer encouragement to help the Banco Agrario design and implement these new areas of financial services, an initiative likely to have a demonstration effect on other banking institutions. Sustainable examples of this type of development are widely documented in Brazil (the Banco do Nordeste's *Crediamigo* program) and in Ecuador (the Banco Solidario), among others.

[181] More specific recommendation on FINAGRO's transition to a new role are presented in World Bank, 2003: *Colombia Rural Finance: Access Issues, Challenges and Opportunities.* Report No. 27269-CO. In Spanish in DNP: *Planeación y Desarrollo* Vol. XXXV, Número 1, enero-junio 2004.

[182] Currently, the Banco Agrario is developing a pilot microcredit plan financed by a small World Bank grant (IDF Grant), whose partial results are promising.

The cooperative system offers a promising institutional basis for the expansion and improvement of financial services in rural areas in Colombia. The experience of Ecuador, where a major development of credit cooperatives took place following the 1999 financial crisis, is instructive[183]. Many of Colombia's cooperative organizations have direct relations with agricultural and nonagricultural activities and membership ties with the rural population. They also provide inputs and market and/or process products. There are currently 11 funds specializing in rural microcredit, operated by private foundations, cooperatives, and community organizations in over 10 departments.

In addition, the government has diversified financial instruments for small rural farmers through programs such as PADEMER (Support to Rural Microenterprises) and Support for Productive Alliances, albeit with relatively limited resources. Support for alliances between organized small farmers and processing and marketing companies or input suppliers, has made it possible to establish effective channels of access by small farmers to financing and specialized technical assistance, supported by marketing contracts that complement the collateral offered through the Agricultural Guarantee Fund (FAG). The institutional structure of these alliances improves risk assessment and reduces the costs of administering the credit portfolio. These new instruments have worked well for industrial crops but are difficult to implement for crops such as fruits and vegetables, despite their growth potential in the domestic and foreign market.

Several legal, regulatory, and judicial reforms related to the operation of the financial market should be considered. One is to adjust the caps on interest rates (established to prevent usury rates) to the conditions and transaction costs of small-scale credit in rural areas. The current definitions dissuade the development of microfinancing services in the rural sector. In addition, the legal framework must be revised to allow moveable property to be used as admissible loan collateral.

The management of agricultural risks requires also some adjustment of instruments. There is very limited scope and coverage of financial instruments that help mitigating production and marketing risks. The principal public instrument to manage risks is the FAG, which offers coverage for bank loans discounted in FINAGRO. The modernization of agricultural risk assessment requires the broader adoption of innovations to reduce transaction costs and distribute more efficiently risks in output and prices. A careful evaluation should be made of the subsidy needed so as not to distort the creation and consolidation of these instruments in the market. Parametric insurance systems offer interesting advantages that should be explored.

Technology. Failures in the markets for agricultural technology and technical assistance give rise to the exclusion of small farmers. Although the development of the research and transfer system is characterized by a growing diversification of suppliers and the use of competitive resource allocation systems, the institutional consolidation of achievements and successful experiences has been very limited. The UMATAs represented a valuable experience to decentralize technology transfer, aimed especially at small farmers. However,

[183] See "Strategy for Rural Development in Ecuador," World Bank, 2005.

due to the lack of links with the research and innovation system, and to their political use by local authorities in some cases, they are being replaced by a new type of institution: the Provincial Centers of Agribusiness Management (CPGAs).

The CPGAs are conceived as entities that bring together different actors: small, medium, and large farmers who demand support services; providers of specialized services for productive chains, i.e., providers of agribusiness technical services and consulting firms; public policy instruments (FINAGRO, Bolsa Nacional Agropecuaria); and local and regional public entities dealing with agro-rural development. In principle, the focus of their work should be on the productive chain, concentrating on those with the highest competitive potential in the corresponding region. This is a promising institution but, due to its location and nature, it may be too distant from the needs of small farmers. Moreover, small farmers' demands for technical assistance and extension are often more generic than specialized. The UMATAs have shown to be capable of aligning the supply of extension services to the needs of small farmers, and should be considered complementary and not in opposition to the CPGAs. Jointly with the development and consolidation of the CPGAs, there is need to revitalize the UMATAs and turn them into professional organizations. The incentives and working conditions of their professional staff should be improved, and there should be adequate training and backstopping programs as well as central schemes to promote networking and evaluate performance and results. In any case, a key problem for technology dissemination in rural areas is the totally insufficient amount of funds allocated by the Colombian State for this purpose.

Correcting the Agricultural Sector Bias of Rural Policy

Colombia's rural policy has traditionally been guided by an agricultural sector view that equates "rural" with "agriculture," disregarding the significant presence of non-farm activities in rural areas. These activities generate income that is essential to the livelihood of the rural population, and constitute a significant basis for the overall competitiveness of rural areas. The current agricultural bias of public policy limits the understanding of the complexity of rural development and underestimates the challenges of effective interventions to benefit the rural population as a whole.

The rural policy focus must be renewed to make better use of all the resources (natural, economic, social, institutional, cultural) available in the territories, as well as all local capacities (public, private, and community), using innovative forms of organization that devolve to local stakeholders the responsibility of promoting and managing local economic development. The challenge is to correct the agricultural bias of rural policy, considering: (i) a multisectoral focus that encompasses the various stakeholders, sectors, and economic activities (farm and non-farm) present in the territory; (ii) a broader concept of rural areas that includes small rural cities and facilitates relations with intermediate cities, where commercial ties are established and goods and services flow from and to rural areas; and (iii) the recognition that there are numerous territories with different assets and unique needs, each requiring different type of interventions.

This new focus demands a set of flexible interventions that respond to the characteristics of each territory. These include:

- ***Support for the creation or consolidation of new forms of local organizations to manage territorial development.*** These organizations should serve as platforms for building consensus among public, private, and civil society actors in the territory as to potential and options for local economic development. They should agree on a territorial development strategy, with a long-term vision that exceeds political-electoral periods and offers continuity. The European LEADER Program, which promotes the formation of Local Action Groups, offers a valuable example of these territorial organization schemes.

- ***Specialized technical assistance.*** Preinvestment resources are needed to finance the specialized technical assistance required by these new types of organizations. This should include the design of territorial planning instruments that give more content to conventional local planning tools like the municipal and regional development and land use plans. Experience shows that these plans tend to be mere formal requirements rather than expressions of true commitment by local actors to long-term local development actions and goals.

- ***Pilot investments in the territory.*** The financing of pilot "flagship projects", capable of giving focus to the idea of territorial competitiveness and encouraging private sector, civil society and local government investments in activities connected to those projects.

- ***Provision of public goods.*** The focus of the public sector should be on providing public goods such as legal security, road infrastructure, education, basic health care, information, and technology, to strengthen the competitiveness of the territories consistent with their local development strategy.

These interventions should be supported with national public resources. Their purpose would be to act as an incentive for the introduction of the territorial approach to rural development. The support for new forms of organization to manage the development of rural territories should be seen as an incentive for local co-financing.

Summary Table of Recommendations

Three key areas for the internal agenda		
1) Public expenditure	**2) Agricultural policy**	**3) Rural policy**
General Recommendations		
Increase public expenditure so that its level is in accordance with the sector's potential to contribute to the country's growth and well-being.	**Redirect agricultural trade policy,** gradually eliminating protection for products with comparative disadvantages and focusing it on those with comparative advantages and export potential.	**Correct the agricultural bias of rural policy** and renew the focus toward one of competitivess for rural territories.
Correct the antirural bias of the public expenditure structure.	Promote **more efficient operation of factor markets** and rural products, especially to benefit small farmers and improve the competitiveness of their farms and help them to become entrepreneurs.	
Minimize expenditure for private subsidies to individual sectors and redirect these resources to the provision of public goods in rural areas.	Strengthen institutional and technical capacity in strategic support services such as research, technology transfer, agricultural and livestock health, and food safety.	
Several Specific Recommendations		
Increase and decisively direct expenditure toward: - **Rural roads** (greater development of the primary network and greater density and quality of the secondary and tertiary network) -**Human capital** (increased coverage of primary education) - **Technology** (development and innovation, and adoption by producers)	a) On trade policy: - **Turn the SAFP** (Andean Price-Band System) into a mechanism solely for stabilization, eliminating its protection component. - **Gradually replace price protection with aid** to producers, subject to technological conversion or aimed at nonagricultural rural activities. b) On the participation of small farmers and their access to the factor market: - Expand alliance models that promote the competitiveness of small rural farmers in factor markets and facilitate their access to productive resources (e.g., Support to Productive Alliances by MADR and the Presidential Agency for Social Action and International Cooperation). c) With regard to the factor market: - Land: - streamline the assignment of titles and processes for expiration of ownership; strengthen the capacities of rural municipalities to administer their cadastre; expand the land protection program for populations that are displaced or at risk of displacement.	Consider: - a **multisectoral focus** that encompasses the various sectors, stakeholders, and economic activities (agricultural and nonagricultural) present in the territory - a **broad concept of the rural area** that includes small rural cities and facilitates their relationships with intermediate cities - the **plurality and diversity** of rural territories that require different interventions for each territory.

	- Financial Services: - introduce innovations and incentives for financial institutions, allowing them to adapt their services to rural conditions; - promote various regulatory reforms related to the financial market (i.e., interest caps for rural credit, using moveable property as admissible collateral, etc.); - begin a gradual process to move FINAGRO toward a role of promoting and developing financial services in rural areas; - expand the scope and coverage of instruments to mitigate risks (market, production). - Technology: - increase the competitive allocation of public resource for c&t; - ensure access to rural extension services for small farmers.	
Several Specific Targets for the Next Four Years		
Allocate at least 1.0 percent of agricultural GDP to agricultural research and technology transfer.	- Land: - update the rural cadastre. - consolidate a regional early warning system to prevent threats to the legitimate rights of rural land ownership by illegal armed groups. - Financial Services: - develop a rural microfinance section within the Banco Agrario to serve as a pilot for other banking institutions; - encourage FINAGRO to play a more active role in promoting the coverage and quality of rural financial services, through the design of incentives for banking and nonbanking intermediaries, in order to create innovative financial services adapted to rural conditions; - break the exclusive linkage of public sector incentives to credits rediscounted in FINAGRO. - **Technical Assistance:** consolidate the CPGA scheme and complement it with the revitalization of UMATAs as professional rural technical assistance organizations, in which the working conditions and professional development of their members are defined, and provide adequate training programs as well as central schemes for support and evaluation and to promote networking.	Allocation of a percentage of the national sectoral budget to rural territories as an incentive to the promotion of the territorial focus of rural development, aimed especially at: - Creating or consolidating new forms of public-private-community organization for the management of local economic development; - **Providing specialized technical assistance** to these new organizations for the planning and management of local development (at preinvestment level); - **Cofinancing "symbolic" productive projects** of a pilot nature that contribute to the competitiveness of rural territories.

References

Adolfo Brizzi, Natalia Gómez y Matthew McMahon. 2003. "Agricultura y desarrollo rural". En: Marcelo M. Giugale, Oliver Lafourcade y Connie Luff (Editores). *Colombia Fundamentos Económicos de la Paz.* Bogotá, Colombia. Banco Mundial-Alfaomega.

Carlos Felipe Jaramillo, 2001. "Liberalization, Crisis and Change: Colombian Agriculture in the 1990s". *Economic Development and Cultural Change*. Vol 50 (1): 821-846.

Marcelo M. Giugale, Oliver Lafourcade y Connie Luff (Editores), 2003. *Colombia Fundamentos Económicos de la Paz.* Bogotá, Colombia. Banco Mundial-Alfaomega.

Isabel G. Lavadenz y Klaus Deininger. 2003. "Políticas de tierras". En: Marcelo M. Giugale, Oliver Lafourcade y Connie Luff (Editores). *Colombia Fundamentos Económicos de la Paz.* Bogotá, Colombia. Banco Mundial-Alfaomega.

Carlos E. Cuevas y Lisa Taber. 2003. "Financiamiento rural". En: Marcelo M. Giugale, Oliver Lafourcade y Connie Luff (Editores). *Colombia Fundamentos Económicos de la Paz.* Bogotá, Colombia. Banco Mundial-Alfaomega.

David de Ferranti, Guillermo Perry, William Foster, Daniel Lederman y Alberto Valdés. 2005. *Beyond the City. The rural contribution to development.* Washington, D.C., World Bank.

World Bank. 2003a. Colombia: Agricultural and Rural Competitiveness. Report No. 27523-CO.

World Bank. 2003b. Colombia Rural Finance. Access Issues, Challenges and Opportunities. Report No. 27269-CO. November 2003.

Klaus Deininger, Raffaella Castagnini and María A. González. 2003. *Comparing Land Reform and Land Markets in Colombia: Impacts on Equity and Efficiency.* Washington, D.C., World Bank.

Ministerio de Agricultura y Desarrollo Rural. 2005. Política agropecuaria 2002-2006. Bogotá (documento no publicado).

IGAC y CORPOICA. 2002, Uso adecuado y conflictos de uso de las tierras en Colombia. Subdirección de Agrología, IGAC, Subdirección de InvestIgación de Sistemas de Producción, Corpoica, Bogotá, D,C, Volumen 4

Fabio Sánchez. 1999. La medición de la pobreza en Colombia. Agosto 1999, Bogotá. DNP-BID

Alvaro Balcázar, et al. 2004. Estudio del impacto en Colombia de la eliminación de la protección comercial a los granos forrajeros y la soya. IICA, Bogotá, agosto de 2004.

Ministerio de Agricultura y Desarrollo Rural. 2004. *El Agro Colombiano frente al TLC con los Estados Unidos.* BNA, Bogotá

Carlos Eduardo Vélez, Laura Rawlings, Vic Paqueo y Juanita Riaño. "El reparto del crecimiento, pobreza y desigualdad". En: Marcelo M. Giugale, Oliver Lafourcade y Connie Luff (Editores). *Colombia Fundamentos Económicos de la Paz.* Bogotá, Colombia. Banco Mundial-Alfaomega.

José Antonio Ocampo, María José Pérez, Camilo Tobar y Francisco Javier Lazo. 1998. "Macroeconomía, ajuste estructural y equidad en Colombia". En: Fabio Sánchez (Editor). *La distribución del ingreso en Colombia: tendencias recientes y retos de la política pública. TM Editores, Bogotá.*

John W. Mellor. 1999. *Faster, more equitable growth: the relation between growth in agriculture and poverty reduction.* Agricultural Policy Development Project Research Report No. 4. Abt Associates Inc.

Departamento Nacional de Planeación - Presidencia de la República. 2005. *"Aprovechar las Potencialidades del Campo"*, En: 2019 Visión Colombia II Centenario. Propuesta para Discusión. Editorial Planeta Colombiana. Bogotá, 2005

Departamento Nacional de Planeación. 2005. Agenda Interna para la Productividad y Competitividad de Colombia. Documento Metodológico Sectorial. Bogotá, D.C. Enero 2005.

The Infrastructure Agenda for Competitiveness: Sequence Matters[184]

Abstract: Availability and quality of infrastructure are critical for the functioning of an economy: both are key determinants of long-run growth and affect the overall level of competitiveness of the economy. In this regard, the declining levels of investment in infrastructure observed in Latin America since the 1990s have been a matter of concern. Colombia has been one of the few countries in the region that has managed to escape from this general trend, thanks to the ability to sustain minimum levels of public investment and to attract private resources. However, in spite of this good performance, investment in infrastructure has been declining in Colombia when compared to the peak reached in the mid-1990s. More important, investment needs are rising due to regional demands for government presence in conflict areas, and are likely to continue growing in the context of increased trade integration. Logistics corridors between main cities and ports still have substantial bottlenecks, jeopardizing the competitiveness of sectors facing increasingly external competition. In the transport sector alone, investment needs amount have been estimated between to 1.6 and 2.3 percent of GDP[185]*, while historical levels are 1 percent. The Government of Colombia has developed a comprehensive agenda for the infrastructure sector, covering the next 15 years. There is no doubt that this agenda is necessary for the country to overcome its barriers to competitiveness. However, in the near future, sequence is crucial in order to help accelerate economic growth and secure competitiveness of key sector, and this note aims at providing elements for establishing this sequencing.*

[184] This chapter was written by Jose Guilherme Reis with the collaboration of Tito Yepes and Fernando Lecaros.

[185] Based on The World Bank report "Recent Economic Development in Infrastructure" (2004). The first figure corresponds to the needs to improve the productivity and competitiveness, while the second includes needs to address social problems as well.

Introduction

Infrastructure services make an important contribution to the productivity and competitiveness of the productive sector, and hence to economic growth. Infrastructure has multiple impacts across the economy, with its relevance to production processes going well beyond what is captured directly by its share of GDP. Infrastructure in developing countries is consumed in approximately equal shares by households as a final consumption item, and by firms as an intermediate consumption item. The quantity and quality of productive infrastructure are important determinants of a country's competitiveness. Energy and telecommunications are strategic inputs into many productive sectors. Road transport networks play a key role in facilitating the movement of goods along domestic production chains; while the quality and efficiency of sea ports, airports, and border crossings play a critical role in enabling flows of international trade.

Colombia has been gradually opening up its economy to international trade, with the total value of exports rising from US$6.7 billion in 1990 to US$13 billion in 2004. It is estimated that the Free Trade Agreement (FTA) currently being negotiated with the United States could bring additional private sector-driven GDP growth and lead to significant changes in the volume of trade, with both imports and exports projected to grow at a faster pace than current trends.

The benefits that Colombia will ultimately reap from further integration, in general, and from the FTA in particular, will depend on the extent to which it is able to compete in international markets. Colombian authorities have been proactive in preparing the country for this freer trading environment, by undertaking a consultation process with different sectors and regions in order to develop an internal agenda that addresses the key barriers to competitiveness. Several important initiatives, such as Vision 2019, are underway, aimed at developing a common basis for diagnostics and policy intervention in the next 15 years. Within this agenda, improving infrastructure conditions is considered a key part of improving competitiveness in the context of greater trade integration.

Colombia has sustained one of the highest levels infrastructure finance in the Latin American region, with strong participation of both public and private sources. Colombia's investments in infrastructure are comparable to those of Chile, as well as to middle income countries in East Asia. This is primarily attributable to sustained levels of public investment, on the order of 2 to 3 percent of GDP. Although a late starter, Colombia has also had one of the largest private capital flows to infrastructure investments in the region, although a high proportion of investment still relies on public sources. The nature of private participation in infrastructure in Colombia differs significantly from that of other countries in the region, with a predominance of green field projects over asset divestitures, and relatively limited private investment in telecommunications. As a result, Colombia has become an international leader in providing high levels of access to basic social infrastructure. By regional standards, Colombia has very high coverage of basic household services (water, sanitation, and electricity) – higher than would be expected given the country's economic, social, and geographic conditions. Service coverage expanded more rapidly during the last decade in Colombia than in comparable Latin American countries, resulting in relatively equitable access across income groups.

However, Colombia lags behind its peers in the accumulation of productive infrastructure, in particular paved roads. Colombia's endowments of productive infrastructure are small in comparison with peers in Latin America and East Asia – smaller than would be expected given country's economic, social, and geographic conditions. Moreover, Colombia's relative position in productive infrastructure has been deteriorating steadily since the 1960s. Prices of Colombian infrastructure services are generally competitive; however, quality of electricity, telecom, and transport services lags behind in regional comparisons, although in the case of telecom there has been remarkable improvement in quality and access in recent years. An assessment of recent logistics performance shows that Colombia compares reasonably well with the rest of Latin America. Nonetheless, logistics costs are high when compared to Central America, let alone to the US and OECD countries, and unevenly distributed across firms, negatively affecting smaller firms to a much greater extent.

Moreover, the expected increase in trade flows will add pressures to the country's transport infrastructure. Some of the expected problems are bottlenecks and missing links in the main corridors (highways, railways, and fluvial transportation), as well as in gateways, ports, and airports, to which the best response would be an increase in public or private investments. Others are mainly regulatory problems, as in the case of the trucking industry. In some cases, as in ports, a combination of public provision of infrastructure and regulatory improvement is required. A different set of problems also requires regulatory and institutional reforms, as in the case of customs procedures and multi-modal coordination.

This Note concentrates on two areas – energy and transport – that have been identified as crucial for Colombia's future in previous World Bank studies[186]. Other sectors such as telecommunications, urban development, and water and sanitation should be also part of the agenda to *improve* competitiveness; however, transport and energy are critical for *securing* competitiveness. Energy is a strategic input for many productive sectors. Road transport networks play a key role in facilitating the movement of goods along domestic production chains, while the quality and efficiency of sea ports, airports, and border crossings play a critical role in enabling flows of international trade. The tight fiscal conditions prevailing in Colombia suggest that cost-effectiveness considerations are critical in any attempt to rank actions on infrastructure. We thus focus on relatively small investments and soft infrastructure measures that can foster participation of the private sector, while helping to accelerate economic growth.

[186] The studies are the Recent Economic Development in Infrastructure (2004), and *Infraestructura Logística y de Calidad para la Competitividad en Colombia* (2006). The previous set of Policy Notes on infrastructure, consolidated in the book *Colombia: The Economic Foundation of Peace* (2003), was also extensively used.

Transport and logistics: a short-term agenda for competitiveness

A number of Colombia's economic and geographical features make it particularly sensitive to logistics issues. Specifically, metropolitan areas (Bogotá, Medellín, Cali, Barranquilla, Cartagena, and Bucaramanga) produce more than 80 percent of Colombia's external trade and 75 percent of its GDP. The main centers of production and consumption (Bogotá, Cali, and Medellín) are located in the highlands, at considerable distance from the country's major ports on the Atlantic and Pacific coasts.

The expected increase in trade flows will intensify pressures on the country's transport infrastructure. Given the large distances and geographic conditions between the main production and consumption centers and the ports, the quality of the main logistics corridors takes on increasing importance. Additional bottlenecks may arise in some of the corridors due to high levels of traffic, which in turn would increase production costs and adversely affect the ability to compete. Although the responsibility for logistics in the value chain relies largely with private firms, the government plays a decisive role. Effective public sector action centers around, first, the regulation and provision of basic infrastructure services; and second, the promotion and coordination of business development in areas where complex institutional aspects are involved.

The general principles governing the strategy for the transport sector can be summarized as (i) better integration with the rest of the world; (ii) internal articulation of the transport system; (iii) development of multimodal infrastructure; and (iv) gradual improvement of infrastructure, given limitations of the public budget. The total estimated investment in the transport component of the transport and logistics agenda through 2010 is US$11.8 billion, or an average of 1.4 percent of GDP per annum. The total value of the agenda through 2019 is US$26.3 billion. The table in the annex presents the main agenda components.

Implementation of the Government's investment agenda will certainly take the country in the desired direction in the long term. But the current tight fiscal envelope suggests that cost-effectiveness considerations are critical in any attempt to prioritize actions on infrastructure. A report recently prepared by the World Bank[187] has focused on a subset of short and medium-term components to tackle the most important bottlenecks. This subset represents smaller public investment requirements with high potential near-term (2006-2010) impact. Total cumulative investments are estimated at US$2 billion through 2010, half of which would come from private investment.

[187] World Bank (2006)

Table 1. Short and Medium-Term Actions in Transport and Logistics, US$ million

Sector	Objectives	Public Investment	Private Investment	Estimated Total Investment
Roads	Road network bottlenecks and logistics corridors	$370	$900	$1,290
	Reform of sector regulation	$20		
Airports	Improve freight operation capacity at El Dorado airport	$10	$35	$45
Ports	Improve the existing port system	$30	$40	$470
	New port on the Pacific coast	$400		
Fluvial	Complete basic investment plan for Magdalena river	$20		$20
Railroads	Track La Loma – Cienaga		$140	$172
	Incentives to diversify products	$2		
	Missing links		$30	
Logistics	Development of logistic centers	$5	$15	$55
	Development of internal terminals		$30	
	Support to modernize SME logistics	$5		
Institutions	Coordination of operation and information in terminals	$3		$18
	Institutional design for quality standards	$2		
	Quality issues: international harmonization and integration		$5	
	Improvement in services to guarantee quality standards	$2		
	Promotion of quality culture	$6		
Subtotal		**$890**	**$1,200**	**$2,090**

Source: *World Bank (2006).*

Transport infrastructure and related services face bottlenecks and missing links in the main corridors (highways, railways, and fluvial transportation), as well as in gateways, ports, and airports. There are also regulatory problems, as in the case of the trucking industry. In some cases, as in ports, a combination of public provision of infrastructure and regulatory improvement is required. A different set of problems requires regulatory/institutional reforms, as in the case of customs procedures and multi-modal coordination.

In addition to cost, political economy considerations should be factored in when trying to establish an agenda for the sector. Issues such as reform of the trucking industry and coordination and information in terminals – notwithstanding their importance and the low cost of addressing them – emerge as the ones which will probably require more coordination and consensus building before they can be implemented.

Bottlenecks in main roads corridors

Colombia has made significant progress during the last decade in developing the roads network and rehabilitating the railroads, as well as in upgrading its ports and airports. Nevertheless, the country has many bottlenecks in those small but critical segments of infrastructure, which are: (i) disrepair or low specifications road segments creating long congestion or unsafe transit; and (ii) missing articulating nodes for different transportation modes. The most critical sections of the major highways are identified in the following table:

Table 2. Key Roads Bottlenecks

Corridors	Segment	Kms.	Service Levels[a]		External trade in tons. by 2010
			2003	*2010*	
Bogotá to Cali	Fusagasuga – Melgar	41	D	E	5,267
	La Tebaida – Armenia	12	C/D	E	5,460
Bogotá/Medellín/Cali to Buenaventura	Loboguerrero – Buenaventura	67	D	E	13,369
Bogotá to Caracas	Socorro – San Gil –	60	D	E	693
Bogotá to Atlantic Coast Bogotá to Medellín	Villeta – Puerto Bogota	33	E	E	6,151
Bogotá to Atlantic Coast; Medellín to Atlantic Coast; Medellín to Caracas	Puerto Triunfo – Puerto.	100	D/E	E	6,206
	Fundación – Cienaga	56	C/D	C/D	6,229
	Cienaga – Santa Marta	36	C/D	D/E	3,432
	La Gloria – El Difícil	247	D	D	19,126
Medellín to Costa Atlántica	Bello – T de Girardota	12	F	F	4,376
Zona Bananera	Turbo –Chigorodó	53	C/D	D/E	1,400
Cali/Bogota/Medellín to	Urban areas in Cali and	28	D	E	1,096

Notes:a) Current service levels were defined by the Ministry of Transport based on international standards. They range from A (the best) to F (the worst). Projections were made by a model that incorporates trade flows into the roads infrastructure. A basic version was developed by Roda (2005) for the World Bank.
Source: *World Bank (2006).*

Ports: institutional scheme and accessibility

The FTA will create additional demands on the existing port infrastructure, which already needs considerable investment in upgrading and expansion – particularly port terminals and their surrounding facilities. However, a second generation reform is necessary to provide adequate incentives to invest. Outside the terminals, it is necessary to improve both land and sea access. On the sea side, access channels to ports and inner harbors require dredging to allow access by larger vessels. On land, access to ports and the circulation of vehicles in urban pre-port areas needs to be improved.

The new port strategy approved by the Council of Economic and Social Policy (CONPES)[188] in 2005 defined a comprehensive and modern policy for the sector. The challenge now is to undertake the sequence of actions for its implementation. The main thrust of the new policy is to review the contractual scheme of the *Sociedades Portuarias Regionales (*SPRs), as well as the new institutional organization of the sector. The review of the contractual scheme should be a structured procedure to ensure the equal treatment of all parties through transparency mechanisms, dissemination, consultation, and appropriate analytical tools.

The current institutional setup is a mix of both tool and landlord ports schemes. A tool port is conformed exclusively by the terminal, which is operated by one firm. A landlord port, in contrast, refers to a port community that involves all terminals within the micro-region of a port, led by an authority that grants operation permits. The latter, today's standard in most efficient ports in the world, aims for competition among operators and among ports. In the former, there is competition only among ports. In Colombia, what is defined as the authority (SPRs) is also the main operator, but without influence on the port community, restricted to its premises that are concessioned. However, it is not a pure tool port scheme because there is a market for stevedoring services, which operates beyond the oversight of the SPRs.

The new port strategy aims for a more consistent scheme for the long run, which requires new roles for all agents in the port community and for all government entities. Important for consistency under these new conditions are coordinated decisions about dredging access channels, the promotion of adequate conditions for the development of private ports, the development of information systems, etc. Additionally, to reap the full effects of lower logistics costs, it will be necessary to improve access to ports from the interior of the country; and to address the problem of traffic congestion in both the Atlantic and Pacific ports.

A national policy for the trucking industry

The trucking industry is by far the most important mode of surface transportation, accounting for 79 percent of total freight by volume. However, the performance of the trucking industry is characterized by a high level of atomization and informality, and the equipment is, on average, 20 years old. The inefficiency of trucking operations has emerged as a key constraint for the productive sector, highlighting the need for comprehensive reform aimed at improving the efficiency and quality of service, and formalizing the industry with carefully attention to potential social impacts. Many specific issues need to be addressed, including the rate-setting framework, incentives for fleet modernization, technical regulations and enforcement, and the appropriate roles of different industry stakeholders. Both international experience and political economy considerations suggest prudence and a gradual approach, with reforms focused on a more deregulated market with strengthened quality standards as opposed to quantitative regulation; and on transformation of the current price regulation (*tabla de fletes*) into a system of price reference as an indicative mechanism to control informal practices. These changes will require a

[188] CONPES (2005).

parallel and complementary process of strengthening the public sector's capacity to regulate. The payoff from these reforms will probably take some time to materialize, especially because of the inevitable gradualism imposed by political economy considerations. The start of the reform process, however, should not be postponed, as this is a key step in solving the country's logistics challenges.

Logistics: cargo terminals and logistics zones

Primary responsibility for improving logistics practices rests with the private sector, with producers streamlining the feeding of supply chains and carriers adopting modern logistics operations. However, government also has an important role to play in adapting regulations (such as those governing container movements); training small and medium enterprises; investing in strategically located inter-modal transfer facilities and logistics centers; and, as noted above, promoting the efficient functioning of the trucking industry.

Development of a network of cargo terminals and logistics consolidation areas will be essential to improve logistics practices, particularly in the trucking industry. These are areas where traditional logistic functions are consolidated and complemented with other value added functions, such as packaging and inventory management. It is necessary to undertake a study to determine their optimal locations and develop business plans, but the five main cities and two port areas emerge as natural candidates. Additionally, a logistics hub could be located in the Magdalena Valley, functioning as a logistics consolidation center and inter-modal integrator. A project of this type would potentially be of interest to the private sector, if the Government were to supply needed land.

It is important to coordinate with local jurisdictions and to consider simultaneous implementation in different cities. This will require active participation by the state in establishing standards and contributing financing. A plan to define the business model of these terminals and their financing schemes should be the result of consultation with users of logistic services. Implementation should be aligned with local land and infrastructure planning and regulation.

Airports: improving the cargo terminal at El Dorado Airport

El Dorado, the country's largest airport (75 percent of air freight by volume), lacks a good logistics process for exports. The convergence of multiple agencies to control smuggling, drug trafficking, and national security at every stage of the export-import process has resulted in a complex institutional setup. These processes limit the competitiveness of Colombian products with export potential, such as flowers and fruits and vegetables. Given the complexity of coordinating the multiple agencies, airport logistics is most appropriately managed by the Government.

A government agency should be empowered to pursue a logistics program for the airport. This agency should hold unique authority to coordinate other agencies within the airport logistics area, maintain control of a single entry point for cargo, and be responsible for meeting performance indicators in terms of time and quality of service. It could contract out with private operators, regulate their performance, and provide inter-institutional coordination. The government is already taking proper and comprehensive actions on the scheme to operate and invest in this terminal.

The energy sector: securing power generation and coverage with lower tariffs

In the energy sector, the goal unveiled as part of Vision 2019 is to become a regional energy cluster, thus (i) guaranteeing the long-term supply of energy, with clear signals of price formation; (ii) developing opportunities for the introduction of bio-fuels, and (iii) harmonizing the regulatory framework for the expansion of the energy sector supply and distribution activities.

Power sector reforms in Colombia are now around a decade old, but electricity issues continue to present a major policy challenge. An assessment prepared by the World Bank in 2004 presents a comprehensive diagnostic of the sector and identifies as priority areas: (i) improving reliability of service; (ii) reducing vulnerability of transmission network; and (iii) reducing costs to industrial users[189].

Ensuring electricity supplies in the medium term and long term is perhaps the most important goal for the energy sector. The 1999 recession created a large capacity reserve, which has been reduced with recent demand growth; currently there is concern that future supplies are not being developed, at least in the magnitude required by expected future load. This has been a pressing issue for some time, given the absence of investment in new plants and the time required to build them. Recently, the Government has endorsed new power plants developed through public agencies, such as the Porce III hydroelectric plant, to be developed by *Empresas Públicas de Medellín,* which has been perceived as a return to Government-sponsored power production, particularly for hydroelectric facilities. This is a strong disincentive to private investment and goes against fair competition rules as demanded by the Public Services and Electricity Laws.

In order to avoid having the public sector take on major risks in electricity production, short and medium-term actions should include:

Stimulating investment in generation through market incentives. A capacity charge that remunerates generating plant has been in place since 1996, but it runs out in November 2006. This has created uncertainty regarding future private sector investment, which requires clear-cut remuneration conditions. The current scheme is considered unwieldy and unsatisfactory by the Government, due, among others, to its 'administered' characteristics. The regulator seeks to replace it by a market-based scheme; an alternative based on energy options has been developed and presented for discussion. The generators have expressed their skepticism regarding the options alternative and have proposed a capacity auction approach. A decision to adopt one or the other should be taken as soon as possible in consultation with stakeholders, to provide assurance to potential investors in generation and stimulate new supplies. In any case, short-term measures such as prolonging the current capacity charge for a limited time (e.g one year) should be avoided, as investors in the power sector require long-term and long-lived measures in order to commit their resources.

[189] World Bank (2004).

Affirming property rights. The Government has been involved in arbitration litigation with private developers, and has lost its case before the arbitration panel. Whether in the right or not, such litigation has conveyed a negative message regarding the environment for private sector investment in power supply. A policy establishing that Government would initiate-arbitration procedures only in well-defined situations could do much to improve the sector's image regarding its friendliness for private investors.

Transmission expansion is a second priority. The goal should be to support transmission expansion in line with demand and generating supply growth – as in traditional sector planning – while at the same time developing international interconnections to open up new energy markets. A few years ago, the transmission function was perceived to be in critical condition due to its vulnerability to terrorist attacks. The situation has much improved, but lines located in conflict areas are still disabled too frequently. Some of the questions to be addressed in this regard include (in addition to normal system expansion measures):

Strengthening transmission links to avoid the formation of monopoly pockets, which triggered regulatory intervention in the past (Regulation 34 suspended market mechanisms in such areas and is being challenged at the judicial level). Although such situations may be unavoidable when sabotage is involved, the measures to deal with them should not only impede the abuse of market mechanisms, but also to avoid an undue burden on the suppliers;

Exploring opportunities for international trade. Colombia is currently supplying more than 10 percent of Ecuador's power requirements, subject to a transmission capacity of 100MW, and increasing the transmission capacity would be mutually beneficial by providing an additional market for Colombian generators and substituting high-cost fuels in the Ecuadorian system. Further, an interconnection with Central America through Panama should be given serious consideration (ISA, the transmission operator, is a shareholder in the Central American interconnection project). In addition, a stronger connection with Venezuela, despite the latter's undeveloped commercial infrastructure, should be considered, given its important backup possibilities under emergency (drought) conditions.

A third priority, in line with the Government's long-run view, is support for the development of renewable energy. Wind, solar, and small hydro projects have been supported through tax exemptions, but judicial instability is not reassuring regarding the long-term prospects for this incentive. Further, there are no special regulatory considerations regarding the development of these alternative energy sources, whose potential has been studied and quantified. An energy sector policy for renewables development, to be followed by supporting regulation, would provide a framework for attracting further investment in this field (the Jepirachi wind project and the Amoyá hydro project are good examples of the potential of renewables).

The fourth priority area is related to pricing and subsidies. Electricity prices and the distribution of subsidies were determined by the 1994 laws that supported sector reform. The efficacy of subsidies has frequently been called into question, and analyses have shown that their distributional impact is about neutral. Subsidies are granted on the first 200kwh/month, and they could be better targeted by using SISBEN. Another effect of the subsidy scheme consists of imposing a burden of up to 20 percent on industrial users, which has negative competitive consequences on trade – particularly in light of the ongoing free

trade negotiations with the U.S. – although it must be recognized that modifying the 1994 laws could be controversial and risky. The issue of regulated subsidies should be revisited to identify possibilities for reducing the competitive burden they impose, as well as for improving their distributional impact.

Finally, there are some important measures related to the unfinished implementation of the energy model, especially the privatization of distribution companies. Several distribution companies remain in government hands, and their privatization has been impeded by their substandard performance in terms of energy losses, billing, staffing, and cost levels. Efforts to bring in the private sector, such as management contracts, should be supported.

Cross-cutting issues on regulation and governance

The Administration's ability to carry out these measures will depend on two basic conditions: (i) the re-engagement of private sector participation in infrastructure, and (ii) strengthened corporate governance in public enterprises.

As in the rest of Latin America, Colombia has been observing a reduction in private sector participation in infrastructure. A clear Government strategy to re-engage private sector would reduce public investment needs. Elements to be addressed are:

- *reduce of the regulatory risk.* Separate the roles of regulation and operation, particularly in the case of line ministers involved in both the regulatory commissions and regulated state-owned utilities;

- *improve institutional capacity* in the *Instituto Nacional de Concesiones* to develop and supervise concessions, and to expand their role beyond the roads sector, which makes up the major share of current projects;

- *improve institutional capacity* in the *Superintendencia de Servicios Publicos Domiciliarios,* which is in charge of supervising the performance of regulated utilities, and acts as an appeals body for consumer complaints;

- *define new strategies* to improve public support for private sector participation.

The investment decisions of large public enterprises are closely tied to the Government's overall fiscal position, as their expenditure commitments appear as part of the public balance sheet. The underlying logic is that those investments could ultimately be part of the public expenditure due to either bad decisions or commercial risk. However, affected enterprises claim that this arrangement jeopardizes their capacity to compete with private companies, which can borrow and invest without that burden. A way to tackle these risks is to reduce their opportunities for bad decisions and increase the probability of their succeeding in the commercial arena through better corporate governance.

Policy recommendations

The foregoing analysis identifies priority measures that will enhance the ability of infrastructure services to support the country's economic growth. A group of low-fiscal-cost/high-impact measures include addressing specific roads bottlenecks and reforming the ports structure. Also included in this group of measures are soft activities such as improving the quality of the Government's partnerships with the private sector; improving public utilities management, and reforming the trucking industry. The adoption of a short-term plan such as the one suggested requires a strong effort in terms of institutional coordination. These action all require an integrated approach and the establishment of clear leadership. In the following table we suggest a more detailed sequence of actions that could serve as a roadmap for policy action.

Table 3. A Suggested Roadmap of Policy Actions for the Short to Medium Term

Actions	First 100 days of government	First Year of government	Government Period
Main logistics corridors	Complete contracting to improve critical bottlenecks in main logistics corridors	Overcome main bottlenecks	Overcome all bottlenecks in the critical segments
Ports	Complete the revision of sector structure Reform regulatory framework to provide more investment incentives		Improve and upgrade sea terminal facilities
Cargo terminals and logistics zones	Study to determine specific location of cargo terminals	Master Plan for development. Pilot experiences.	Development of a cargo terminal network
Trucking industry		Reform of the trucking industry (price regulation, strengthen quality standards)	
El Dorado airport		Definition of a logistics plan	
Security of energy supply		Address options and policies for stimulating investment; improvement in regulatory framework	
Transmission		Address issues associated with Regulation 34	Increase transmission capacity with neighbor countries
Energy prices and subsidies			Revisit subsidy scheme to reduce the burden on industrial users and improve distributional impact.
Bio-fuels		Prepare an energy sector policy for renewables	
Private sector participation in distribution		Study of alternatives to bring in the private sector	

ANNEX

The Transport and Logistics Agenda for Colombia, US$ Million

Goal	Current Condition	Condition by 2010	Condition by 2019	Estimated Total Investment US$ Million
Transport Sector				
(1) Roads: Consolidate the road network	16.649 km main road network	18.640 km main roads	20.935 km of main roads	**$22,343**
	6.989 km of main roads paved and with high service standards	Increase road capacity in 1.250 km	Increase road capacity in 2.554 km	
(2) Airports: Modernization and integration of aerial infrastructure	15 percent of airports in high levels of services	60 percent of main airport in high levels of service	100 percent of main airports at high levels of service	**$1,944**
(3) Ports: Increase the capacity of port sector for public use	150 mill. ton/year of installed capacity for public use	200 mill. ton/year of installed capacity for public use	285 mill. ton/year of installed capacity for public use	**$495**
(4) Fluvial: Consolidate fluvial transport in the country's main waterways	39 percent of permanent use in the major waterways	55 percent of permanent use in the major waterways	80 percent of permanent use in the major waterways	**$527**
	3 percent of freight mobilized by this mode	7 percent of freight mobilized by this mode	10 percent of freight mobilized by this mode	
(5) Railroads: Articulate the existing railroad network	45.6 mill tons mobilized	60 mill tons mobilized	90 mill tons mobilized	**$709**
	1.424 kms active	2.321 kms active	2.501 kms active	
(6) Logistics: Develop logistics centers and border gateways	0 Logistics Centers	4 Logistics Centers	5 Logistics Centers	**$243.3**
	2 Border gateways	4 Border gateways	6 Border gateways	
Total Investment In Transport	**US$628**	**$11, 836**	**$26,360**	**$26,360**

Source: *Based on the presentation given by the chief of the National Planning Department at the II National Congress of Infrastructure in Cartagena, 2005; and on Vision 2019.*

References

Conpes (2005) Plan de expansión portuaria 2005 — 2006: Estrategias para la competitividad del sector portuario. (Documento nº 3342).

Departamento nacional de Planeación (DNP) (2006) Visión Colombia II Centenario: 2019.

Roda, P. (2005). "Desarrollo de un Plan Estratégico para eliminar Cuellos de Botella en la Infraestructura Física para la Logística en el Comercio Exterior".

World Bank (2003) Colombia: The Economic Foundation of Peace (2003).

World Bank. 2004. Recent Economic Developments in Infrastructure in Colombia (REDI).

World Bank. 2006. *Infraestructura Logística y Calidad para la Competitividad de Colombia.* Department of Finance, Private Sector and Infrastructure, Latin America Region.

Securing Social and Economic Progress through Fiscal Sustainability[190]

Abstract: When the last set of Policy Notes was issued, the new Administration was facing the threat of a macroeconomic crisis stemming from persistent fiscal imbalances, a rapidly growing public debt, and a high level of external financing. An analysis was prepared comparing Colombia's fiscal and external sustainability to that of Argentina, which had just entered a severe economic crisis. Would Colombia be next?

Since then, public sector balances have improved substantially, and the net public debt to GDP ratio has declined from 54 percent in 2002 to less than 43 percent at the end of 2005. Public sector liability from the pension system has also declined, from 191 to 148 percent of GDP, as a result of two sets of reforms. Simulations presented in the annex establish that a consolidated Central Government primary surplus of 2.1 percent of GDP to lower the public debt ratio to 30 percent of GDP by 2015.

Despite recent progress, continuing this favorable trend may be challenging, as temporary tax and intergovernmental transfer arrangements expire over 2006-2008. Fortunately, the favorable external environment has helped spur to strong economic growth over the last years, and growth greatly facilitates fiscal adjustment. Comprehensive tax reform and greater expenditure flexibility will be key elements for ensuring long-term fiscal sustainability. Two substantial benefits of long-term sustainability for the next generation of Colombians would be: (i) a much lower risk of an economic crisis reversing the made progress in poverty reduction, and (ii) the freeing up of substantial resources now devoted to debt service.

[190] This chapter was written by Christian Yves Gonzalez with the collaboration of David Gould and Steve Webb.

Introduction

Excessive budget deficits have been a major factor in virtually all economic crises over the last quarter century. Such crises can have long-lasting social and economic impacts. For example, young people leave school to help support their families, often never to return to their studies. Domestic and foreign investors lose confidence in the country's economy, leading to lower long-term investment and lower economic growth. When governments accumulate debt, they are passing on tax bills from current taxpayers to future generations. Therefore, the Colombian Administration needs to ensure sustainable levels of debt in order to secure economic prosperity for future generations of Colombians.

The chapter on public debt sustainability and management in the 2002/3 Policy Notes provided a thorough review of the history of public indebtedness up to the start of the Uribe administration. At the time, there was great concern that Colombia could slip into a crisis situation, driven by large fiscal deficits and the rapid accumulation of public external debt. Another chapter included an annex with a careful indicator-by-indicator comparison of Colombia with Argentina, which had fallen into a crisis that had terrible social consequences.

This Note focuses on more recent history, including reforms designed to improve the prospects for continued fiscal sustainability. It also summarizes an updated debt sustainability analysis, conducted as part of the 2005 Country Economic Memorandum. This analysis quantifies the key parameters and policy variables that impact fiscal sustainability.

Recent reforms to secure fiscal sustainability

The Administration has taken the necessary step for the short term – reducing budget deficits and slowing monetary growth – but there remains a substantial agenda of fiscal reforms. The rapid expansion of public sector spending throughout 1990s (from 25 percent of GDP in 1990 to over a third in 2002), combined with growing pension and other liabilities, led to a legacy of large deficits at the start of the Uribe Administration. As public spending surpassed the Government's revenue-generating capacity, the increasing fiscal deficit was financed with debt, both domestic and external, which peaked at 54 percent of GDP in 2002[191].

Public sector debt fell to less than 43 percent of GDP in 2005, and further declines are expected in the coming years, provided that the Administration continues to confront the fiscal challenges and prepare for vulnerabilities due to changes in the market and external economic shocks. The debt sustainability analysis finds that the government would be able to reduce its debt stock to 30 percent of GDP in 2015 which is a very manageable debt level, if the primary surpluses of recent years are sustained. Annex 1 summarizes the analysis of how the debt would evolve under various scenarios of shocks and policy responses.

[191] Net non-financial public sector debt.

One direct payoff from reducing the stock of debt to targeted levels is that the interest bill on the public debt would fall from about 5 percent of GDP to an estimated 3.5 percent of GDP in 2015. This would represent real resources that could be returned to society through tax cuts, used to benefit society through public investment, or used to lower debt further and continue the virtuous circle of debt reduction and interest savings. There would also be indirect benefits through lower interest rates, greater investor confidence, and higher levels of investment and growth. The latter impacts, however, are more difficult to quantify.

The Fiscal Responsibility Law

In June 2003, the Colombian Congress approved a Law on Fiscal Responsibility and Transparency (FRL), which provides a framework for fiscal sustainability. The FRL contains rules for fiscal stability, transparency, macroeconomic consistency, and fiscal discipline. It requires: (i) the establishment of yearly fiscal targets linked to debt sustainability and primary balance for the non-financial public sector; (ii) publication of the a yearly financial plan; (iii) annual reports of fiscal results to Congress; and (iv) inclusion of a fiscal impact analysis and source of financing within any new law affecting taxes or expenditures. Regulations for the FRL build on the earlier practice of publishing quarterly fiscal results, defining deficits on the basis of cash revenue and accrual of spending obligations, and defining debt to include floating debt. The FRL sets a target of eliminating *reservas presupuestales* in two years. The other part of floating debt, *cuentas por pagar*, will be counted as regular debt and will thus be controlled by the fiscal/financial plan. To discourage electoral cycles in fiscal policy, the FRL also prohibits any government from committing future spending (*vigencias futuras*) or increasing personnel spending in an election year. The FRL also does not allow sub-national governments to borrow unless they maintain primary surpluses. These measures have enabled the public sector to reduce its fiscal deficit.

In June 2004, the Administration presented its first Medium-Term Fiscal Framework to Congress, as mandated by the FRL[192]. The framework covers not only the fiscal and financial outcomes for 2003, projections for 2004, and plans for 2005, but also analysis and information on key issues such as quasi-fiscal activities and contingent liabilities, and the expected fiscal cost of all existing tax exemptions and deductions and of laws approved during the previous legislative session. The MTFF has been effective somehow in maintaining the Central Government's fiscal deficit below its target in 2005, mostly because it has a financial plan which is revised throughout the year which incorporates adjustment measures to meet the fiscal target in case these are necessary. The document has been disseminated widely and praised for quality and comprehensiveness, and has been used as a reference by civil society and international organizations (including the IMF) to conduct assessments of fiscal and macroeconomic projections.

The strategy for fiscal control in the FRL differs between the national and sub-national levels, because of their differing constitutional constraints on fiscal policy. For the sub-national governments (discussed in more detail below), the Constitution specifies that most

[192] The full text of the Framework, along with the presentation made to Congress, can be downloaded from www.minhacienda.gov.co.

of their revenue will come from transfers, and gives them little tax bases, which haven't been collected efficiently. Thus the FRL strengthens the ex ante restraints on sub-national deficits to complement the existing restraints on sub-national spending, established primarily in Law 617, passed in 2000. For the national government, where the severest fiscal problems have occurred, the FRL increases transparency and limits the deficit but still does not give the Ministry of Finance a hard budget constraint with which to enforce fiscal discipline in the face of special interest demands. For example, sub-national transfers could be increased to finance teachers' wages increases. The Constitution, debt obligations, pensions, and other legal entitlements specify almost all outlays for the national government, so the FRL focuses on limiting the deficits. This implies that adjustment must take place on the tax side, and this eventually may motivate political support for expenditure restraint.

Making pensions sustainable

Colombia has a constitutionally mandated pay-as-you-go pension system. Although the system was reformed in 1993, it still generates major deficits that need to be covered through large central government transfers. While the reform addressed issues of low contributions and overly generous retirement benefits, it did not take into consideration demographic changes (it calculated an average payout lifetime of 15 years, but it is now close to 26 years), and did not eliminate a number of very expensive special regimes.

In June 2005, Congress passed a constitutional amendment to make the pension system more sustainable, which is vital in order to close the deficit in the social security operational balance more quickly, and thereby reduce the transfers from the central government and enhance fiscal sustainability. This reform has reduced the net present value of pension liabilities by some 18 percent of GDP (166 percent of GDP to about 148 percent), but further reduction of fiscal pressures is needed to help ensure the sustainability of the system.

Sub-national government finances

The own finances of the sub-national governments have also improved, due to a series of measures introduced between 1997 and 2003 that aimed at controlling debt directly and through spending control. In the late 1980s and 1990s, the trend toward political decentralization was accompanied by more freedom for sub-national domestic borrowing. There was no effective ex ante control of cash advances from banks, and sub-national debt with the banking sector rose from 2.6 percent of GDP in 1991 to 4.6 percent in 1997[193]. To increase the central government's control over sub-national debt, the so-called Traffic Light Law of 1997 introduced a rating system for territorial governments, based on the ratios of interest to operational savings and of debt to current revenues. Highly indebted local governments (red light) were prohibited from borrowing, and intermediate cases (yellow light) were required to obtain permission from the Ministry of Finance. The Law was not fully effective, however, since some governments with a red light rating obtained new financing without permission from the Ministry of Finance. "Out of 21 departments that

[193] For further details, see Dillinger, Perry, and Webb (2001).

required permission for new loans in 1997, 10 received new credit without permission from the Ministry of Finance. In violation of the law, departments presented defective financial information, and the financial institutions analyzed it only superficially. In addition, the Ministry of Finance gave its authorization in cases where it clearly should have been denied."[194]

The importance of bank lending as a source of financing for sub-national governments in Colombia makes bank regulation an alternative way to control sub-national borrowing. The Superintendence of Banks altered its requirements regarding provisioning against nonperforming territorial loans. After sub-national government borrowing from banks expanded during 1993–94, the Superintendence required any sub-national loan with a maturity of more than one year to be classified as risky and to have some provisioning. The regulations were relaxed again in 1996, leading to two years of high borrowing. In 1999, the Traffic Light Law was strengthened to require banks to provision fully for the debt of any territory with a red rating, thus increasing the cost of those loans for banks.

Law 617 of 2000 was designed to further stabilize sub-national finances. This Law functions in many ways as a sub-national fiscal responsibility law, and initial evidence suggests that it is bringing about a structural change in fiscal outcomes:

- Primary current expenditure (most of which is wages) may not exceed non-earmarked current revenues, and should not exceed a fixed percentage, depending on the state or municipality category; governments must make across-the-board cuts in spending whenever effective non-earmarked current revenues are lower than budgeted;

- Expenditure for departmental legislatures is limited;

- Departmental and municipal central administrations are not allowed to make transfers to their public entities;

- Strict limits apply to the creation of new municipalities, and municipalities that prove nonviable are required to merge;

- When sub-national governments do not comply with the limits imposed by law, they must adopt a fiscal rescue program to regain viability within the next two years;

- To promote transparency, there is an extensive list of requirements for candidates running for election as governor, mayor, or legislator. These requirements also apply to their relatives.

The Fiscal Responsibility Law passed in June 2003 (see above) eliminates the intermediate yellow light category established by Law 357, thus putting tight fiscal restraints on sub-national governments that show signs of problems. The FRL also (i) requires that

[194] Echevarria et al (2002), pp. 22-23.

departments and large municipalities get satisfactory credit ratings from international rating agencies before they borrow; and (ii) prohibits the national government from lending to a sub-national government or guaranteeing its debt if it is in violation of Law 617 of 2000 or Law 357 of 1997, or if it is in arrears on any debt service to the national government. Indeed, a sub-national government with those fiscal violations may not legally borrow from any source[195].

The policy agenda for sub-national government finances, in summary, is to preserve the recent progress made in reducing deficits, allow them to borrow, and increase their spending efficiency and tax collection efforts[196].

Future reform agenda

Since 2002, the Administration has undertaken a number of lasting reforms that go beyond the natural fiscal improvements that follow the favorable economic cycle. The Fiscal Responsibility Law has helped the central government to plan for the medium term and to restrict borrowing by regional governments. In addition, the implicit pension liability has been reduced, and the Administration has reduced its exposure to the vagaries of the international borrowing cycle. These results have had an immediate impact on growth by lowering the costs of borrowing for both government and the private sector. Further efforts could lead to a continuation of this virtuous circle of lower public debt, lower country risk and borrowing costs, and higher and more stable economic growth. Below is an indicative list of priority high-impact measures that the next Administration, Congress, and Colombian society may consider to help ensure that this virtuous circle continues over the short and medium terms. These suggestions are broadly consistent with proposals put forth in Vision 2019.

Short term

- Keep the primary balance at or above 2.5 percent of GDP to debt to reduce vulnerabilities;
- Continue to lower external vulnerability through shift to local-currency debt;
- Continue past efforts to improve the structure of existing debt;
- Tax reform – the immediate need is to replace the revenue loss expected from the expiration of the temporary measures introduced by Law 863 of 2003 (including losses in import taxes that may come from the Free Trade Agreement). Equally important is to improve competitiveness by simplifying the current maze of tax exemptions, thus expanding the base and opening fiscal space for lower tax rates[197];

[195] The Fiscal Responsibility Law establishes that sub-national governments should have a ratio of primary balance to interest rate of greater than one.
[196] For a further discussion on tax collection see the Taxing and Spending in Colombia chapter.
[197] For a further discussion on Law 863 see the Taxing and Spending in Colombia chapter.

- Continue to rigidly apply the existing legislation that controls borrowing by sub-national governments, to limit their risks from excessive indebtedness.

Medium term

- Reduce the debt/GDP ratio to less than 35 percent, in order to reduce vulnerability and generate savings from a lower interest bill;

- Organic Budget Code reform to reduce earmarking and improve fiscal spending decisions.

References

Dillinger, William, Guillermo Perry, and Steven Webb. 2001. *Macroeconomic Management in Decentralization Democracies: The Quest for Hard Budget Constraints in Latin America.* Annual World Bank Conference on Development in Latin America and the Caribbean, 1999: Decentralization and Accountability of the Public Sector. Proceedings of the conference held in Valdivia, Chile, June 20–22, 1999 (2000): 85–105. Washington, D.C.: World Bank.

Echevarria, Juan Jose, Carolina Renteria, and Roberto Steiner. 2002. *Decentralization and Bailouts in Colombia.* Washington, D.C.: Inter-American Development Bank.

Ministerio de Hacienda. *Marco Fiscal de Mediano Plazo.* www.minhacienda.gov.co.

Technical Annex: Debt Sustainability Analysis

Debt Sustainability Analysis. Colombia's present level of net of external assets public debt, at about 42.8 percent of GDP (down from a peak of 54 percent in 2002) remains relatively high. But it appears manageable in the near term even when considering possible adverse economic shocks. Many recognize (including the government) that debt needs to decline further as a share of GDP, due to its high fiscal cost and the financing vulnerabilities to which it exposes the county. The government's target is to reduce the level of debt to 38 percent of GDP by 2015, but given the favorable external environment and the re-scheduling of the debt they could easily reach a target of 30 percent of GDP. We analyze the debt prospects in four different ways: (i) a baseline projection with historical average values of key parameters; (ii) an analysis of policy responses that would be necessary for the government to meet the debt reduction target of 30 percent of GDP in the face of possible economic shocks; (iii) projections of what would happen to debt ratios if economic shocks hit but there were no fiscal policy response, and iv) an analysis of the sustainability of total public plus private external debt. (A full description of the analytical work is available from the CMU).

The baseline scenario makes the following key assumptions:

- Historical average real GDP growth of 3.2 percent, which is below last year's growth of 5.1 percent;
- A primary balance of 2.1 percent. Last year it was 5 percent, but this includes three percentage point surplus from sub-national governments and public entities, which is not be readily available to service the debt;
- 30 percent depreciation of the real exchange rate, bringing it back to its historical average over a five year period beginning in 2005[198];
- An average implicit real interest rate on domestic and external debt of 6.3 percent, which is currently 6.4 percent.

In this scenario, the government achieves its target of reducing the debt ratio to 38 percent in ten years.

The second and third sets of scenarios add three adverse shocks to this baseline: an immediate depreciation of the real exchange rate by 30 percent in 2006 (instead of spread over 5 years), a reduction of growth to -2.1 percent for 2006 (two standard deviations from the average), gradually returning to its average by 2010; and a rise in the real interest rate to 8.6 percent in 2006, returning gradually to 6.3 percent by 2010. And there is also the

[198] Since about half of Colombia's debt is foreign, mostly in US $, the exchange rate has a large and instantaneous impact on the debt ratio. In the decline of the debt ratio from its peak of 54 percent of GDP in 2002 to 47.5 percent at the end of 2004, the 30 percent real appreciation of the exchange rate accounts for six of the eight percentage points of decline. The exchange rate is unlikely to retain all of this recent appreciation, so the government should continue with fiscal caution, despite the decline of the debt ratio.

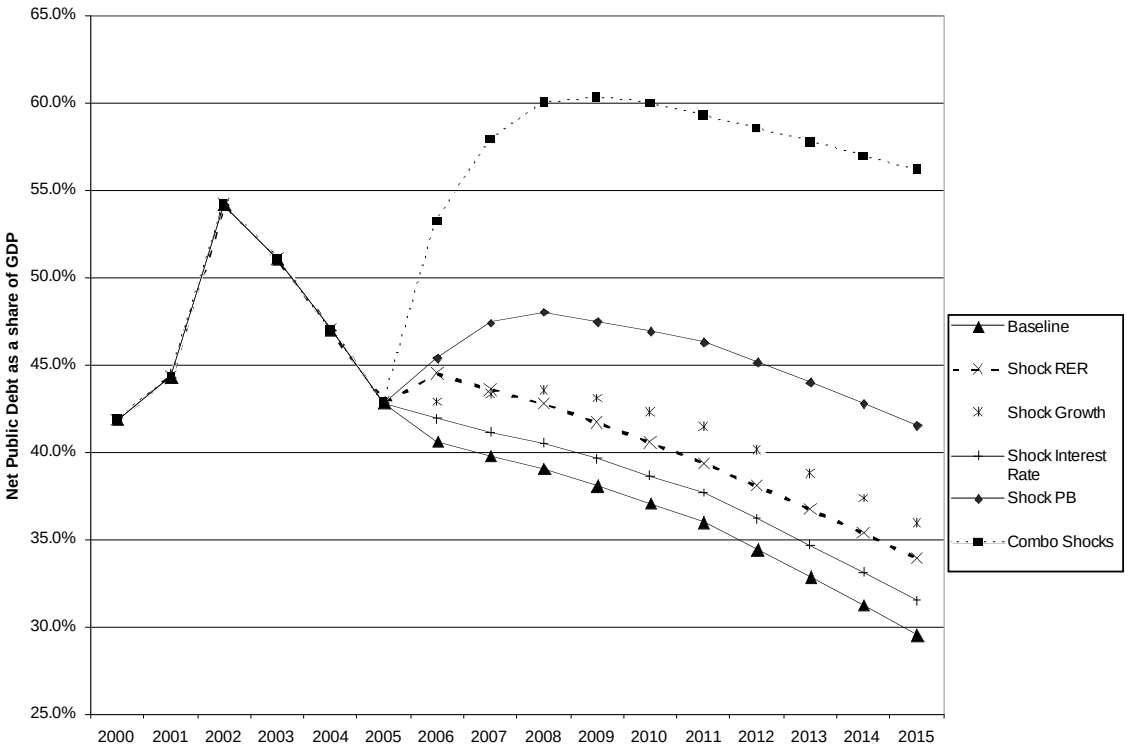
combination shock, where all three adverse shocks occur. If the government still wants to meet the target debt ratio of 30 percent of GDP for 2015, it will have to tighten fiscal policy from the baseline primary balance of 2.1 percent, up to 3.3 percent in the case of the combination shock.

Table 1 Debt Sustainability with Shocks and Policy Adjustment

Type of shock	Primary surplus required to achieve the target debt ratio (36 percent by 2015)
Baseline scenario (see above)	2.1%
Real effective exchange rate depreciation of 30 percent in 2006 with maintenance of other variables at the values described in the baseline scenario	2.5%
GDP growth shock: in 2006 of historical growth average minus two standard deviations (implies -2.1 percent growth). In 2007, historical average minus one standard deviation (implies 0.5 percent growth). In 2008, a growth rate of 1.5 percent is assumed, with 2009 of 2.5 percent. Afterwards the historical growth rate is assumed. All other variables are kept at the values of the baseline scenario.	2.6
Real interest rate shock. In 2006, we assume a real implicit interest rate of 8.6 percent. Afterwards, it gradually declines to 6.3 percent. All of the other variables are kept at the values described in the baseline scenario.	2.3%
Combination of all three shocks	3.3%

If these shocks materialized and policy remained passive, with primary balances unchanged at 2.1 percent, debt ratios would jump initially and then decline, but the government would not achieve its target for reducing the debt ratio to 30 percent of GDP. With each of the individual shocks, the debt ratio would be below 45 percent by 2015. With the combination of all three shocks, the ratio would peak at close to 60 percent of GDP in 2008, then slowly fall to about 56 percent in 2015. This level of debt is certainly high and would put considerable fiscal pressure on the government, but it is not explosive and could be contained by maintaining a primary balance of 2.1 percent of GDP, which is within the historical experience of Colombia.

Figure 3: Public Debt Sustainability Even Without a Policy Response to Shocks.



Analyzing the sustainability of the external debt requires a model that incorporates another set of key macroeconomic variables, such as Colombia's current account, and allows us to model another set of different shocks, particularly one to inward international capital flows. Total external debt service (public and private) remains one of the highest levels, as a percentage of exports of goods, services, and income, in Latin America. It has fallen from a high of above 67 percent in 2002 to more manageable levels of less than 40 percent now, but it is still just below Argentina's 42 percent.

Nonetheless, Colombia's total external debt profile (public and private) is likely to be sustainable. Total external debt is expected to decline to 24.2 percent of GDP under our baseline scenario**.** The primary risk associated with external debt sustainability is exchange rate risk. A depreciation of the real exchange rate in excess of 30 percent within one year would increase the total external debt to GDP ratio from about 28.2 percent currently, to over 41.1 percent but this is unlikely to generate a debt crisis,. Total external debt reached nearly 48 percent in 2001 without a crisis, in an economic environment that was less favorable than today. A transitory peak of 41.1 percent total external debt would put pressure on financing, but is expected to be manageable.

Table 2: Colombia External Debt Sustainability Framework (In percentages of GDP, unless otherwise indicated.)

	Actual											Estimate Projections					
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
External debt (nominal) 1/	27.8	28.5	32.0	32.3	37.3	42.6	43.1	47.7	45.8	48.1	41.6	37.3	37.3	37.7	36.6	35.4	34.5
o/w public and publicly guaranteed (PPG)	18.0	16.8	16.9	15.7	19.1	23.4	24.6	28.6	27.9	31.0	26.9	24.1	23.6	23.5	22.7	21.9	21.2
o/w private	9.8	11.7	15.2	16.5	18.2	19.2	18.5	19.1	17.8	17.1	14.7	13.2	13.7	14.1	13.9	13.6	13.3
Change in external debt	-1.3	0.7	3.5	0.2	5.0	5.4	0.5	4.6	-1.9	2.3	-6.5	-4.3	-0.0	0.4	-1.1	-1.1	-0.9
Identified net debt-creating flows	-3.2	0.7	0.2	-2.7	4.7	2.8	-2.5	-0.8	-0.7	0.7	-8.5	-3.6	1.3	0.6	-0.7	-0.7	-0.7
Non-interest current account deficit	2.5	3.0	2.6	3.0	2.3	-3.7	-4.0	-1.8	-1.4	-1.5	-1.6	0.4	0.1	0.3	0.1	0.3	0.2
Deficit in balance of goods and services	3.9	4.0	3.4	3.9	4.0	-0.7	-1.6	1.0	1.5	1.4	0.6	3.0	3.1	3.9	3.8	3.6	3.3
Exports	13.1	13.4	13.5	13.3	13.6	16.2	18.8	18.3	17.4	19.7	20.0	17.5	18.1	17.9	18.5	18.9	19.7
Imports	17.0	17.3	16.9	17.2	17.6	15.6	17.2	19.4	18.9	21.0	20.6	20.6	21.1	21.8	22.3	22.5	23.0
Net current transfers (negative = inflow)	-1.3	-0.8	-0.7	-0.7	-0.8	-1.7	-2.0	-2.9	-3.2	-4.1	-3.7	-3.3	-3.6	-3.7	-3.7	-3.5	-3.5
o/w official	-0.2	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.7	-0.5	-0.4	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Other current account flows (negative = net inflow)	-0.1	-0.2	-0.0	-0.2	-0.9	-1.3	-0.4	0.0	0.3	1.2	1.5	0.8	0.6	0.1	0.0	0.1	0.4
Net FDI (negative = inflow)	-1.8	-1.0	-3.2	-5.2	-2.9	-1.7	-2.9	-3.1	-2.6	-2.2	-1.6	-1.3	-1.5	-1.6	-1.5	-1.4	-1.4
Endogenous debt dynamics 2/	-4.0	-1.2	0.8	-0.4	5.3	8.2	4.4	4.1	3.3	4.4	-5.3	-2.7	2.7	1.9	0.7	0.4	0.4
Denominator: 1+g+r+gr	1.3	1.1	1.1	1.1	0.9	0.9	1.0	1.0	1.0	1.0	1.2	1.1	1.0	1.0	1.1	1.1	1.1
Contribution from nominal interest rate	1.9	2.0	2.1	2.4	2.6	2.9	3.2	3.1	3.1	3.0	2.7	2.5	2.6	2.6	2.6	2.4	2.4
Contribution from real GDP growth	-1.2	-1.3	-0.6	-1.0	-0.2	1.8	-1.3	-0.6	-0.9	-1.8	-1.5	-1.5	-1.5	-1.5	-1.4	-1.4	-1.3
Contribution from price and exchange rate changes	-4.8	-2.0	-0.8	-1.9	2.9	3.5	2.5	1.6	1.2	3.2	-6.4	-3.7	1.6	0.8	-0.5	-0.6	-0.7
Residual (3-4) 3/	1.9	-0.0	3.3	2.9	0.3	2.6	3.0	5.4	-1.3	1.6	2.0	-0.7	-1.4	-0.2	-0.4	-0.4	-0.2
o/w exceptional financing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Key macroeconomic assumptions																	
Real GDP growth (in percent)	4.4	5.7	5.1	5.2	2.1	3.4	0.6	-4.2	2.9	1.5	1.9	3.8	3.8	4.0	4.0	4.0	4.0
GDP deflator in US dollar terms (change in percent)	...	7.2	19.5	7.6	2.9	6.2	-8.2	-8.6	-5.5	-3.6	-2.4	-6.5	15.4	9.8	-4.1	-2.0	1.3
Effective interest rate (percent) 4/	7.8	7.1	8.4	8.2	7.9	8.3	7.5	6.8	7.2	7.1	6.4	6.5	6.6	6.9	6.9	7.1	7.2
Growth of exports of G&S (US dollar terms, in percent)	1.6	7.6	7.5	15.4	6.5	8.1	-5.5	4.0	12.8	-4.6	-5.7	9.8	21.9	0.0	3.0	0.9	8.6
Growth of imports of G&S (US dollar terms, in percent)	24.6	40.7	19.7	15.1	2.6	11.6	-5.5	-22.7	7.6	10.2	-3.0	8.1	17.3	14.0	2.7	5.1	7.5
Memorandym item:																	
Nominal GDP (billions of US dollars)	57.4	65.0	81.7	92.5	97.1	106.7	98.4	86.2	83.8	82.0	81.6	79.2	94.9	108.4	108.1	110.1	116.0

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - r(1+g)]/(1+g+r+gr) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and r = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Current-year interest payments devided by previous period debt stock.

II. Stress Tests for External Debt Ratio

	Actual											Projections					
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2005-10 1/											41.6	39.9	37.5	36.3	34.9	33.4	32.2
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2005-06											41.6	39.0	40.7	41.1	39.9	38.7	37.7
B2. Export value growth at historical average minus one standard deviation in 2005-06 3/											41.6	37.8	37.8	38.2	37.1	36.0	35.0
B3. US dollar GDP deflator at historical average minus one standard deviation in 2005-06											41.6	44.2	45.7	46.2	44.9	43.5	42.3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2005-06 4/											41.6	39.9	43.0	43.6	42.4	41.2	40.2
B5. Combination of B1-B4 using one-half standard deviation shocks											41.6	46.1	50.1	50.7	49.4	47.9	46.7
B6. One-time 30 percent nominal depreciation relative to the baseline in 2005 5/											41.6	51.3	51.3	51.8	50.3	48.7	47.5

Source: Staff projections and simulations.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline.

3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Disaster Vulnerability Reduction for Sustainable Development[199]

Abstract: Located on the Pacific Ring of Fire and situated on three mountain chains, Colombia is highly prone to natural disasters. Recent studies show that the impact of natural disasters is on the rise and is likely to affect the country's fiscal stability. This Note argues that Colombia needs to tackle the problem of natural disasters at its root by mainstreaming natural disaster risk management into its development process. The country needs to modernize the legislation guiding the activities of the National System for Disaster Prevention and Attention (SNPAD), and redirect its primary focus from emergency response to a more comprehensive risk management approach. To improve the effectiveness of the State's actions, SNPAD should define an efficient and sustainable risk reduction and financing strategy.

[199] This chapter was written by Francis Ghesquiere with the collaboration of Omar Dario Cardona.

Introduction

Colombia has had its fair share of natural disasters. In the last 25 years, the country has suffered from six major earthquakes, three volcanic eruptions, major landslides and avalanches, and extensive flooding. One study[200] estimates that more than 4 million Colombians were affected by major disasters between 1993 and 2000. Another study[201] estimates that the costs for the most significant Colombian disasters in the last 25 years ranged from US$45 million (in the case of the *Atrato Medio* of 1992) to close to US$1,600 million, or 2.2 percent of GDP (for the *Eje Cafetero* earthquake of 1998). A third study[202] shows that events related to the El Niño phenomenon caused losses in Colombia of about US$564 million in 1997 and 1998.

Colombia is also affected by recurrent minor disasters, triggered by persistent phenomena such as landslides, floods, forest fires, and droughts. Although rarely included in national statistics, these smaller but frequent events chronically and negatively impact development at the local and sub-national levels and affect the low-income socioeconomic strata of the population. In addition to causing a significant loss of life, they are a barrier to development and poverty reduction. During the period 1993-2004, 5.2 million people were affected by these events, or an average of 450,000 people each year. Table 1 shows the gross figures for damage and losses per medium-intensity event[203]. In light of the persistence of the smaller events in the country, municipal investments in risk management remain disconcertingly low.

---

[200] Echeverri Garzón (2002).
[201] Cardona and Wilches-Chaux (2004).
[202] CONPES (2001)
[203] DesInventar database, the Social Studies Network for Disaster Prevention in Latin America (La RED). This database has records for Colombia from the early twentieth century that are broken down by types of events, types of effects at the municipal level and frequency of occurrence, and also provides time and spatial statistics.

Table 1. Damage and Losses from Small and Medium-Intensity Events, 1981-2000

Period	Deaths	Persons affected	Dwellings destroyed	Dwellings affected	Hectares of crops damaged
1981-1990	3,643	2,824,832	19,780	14,400	1,011,655
1991-2000	2,477	11,140,127	49,835	157,711	1,526,363

Source: DesInventar *database (updated 2003).*

A study conducted for the Economic Commission for Latin America and the Caribbean (ECLAC) and the Inter-American Development Bank (IDB)[204] identifies and analyzes a total of 17,931 events (597.7 per year) recorded over a 30-year period, giving Colombia the highest average in Latin America – even higher than Peru (585.5) and Mexico (241.9), which both have high disaster occurrence indices.

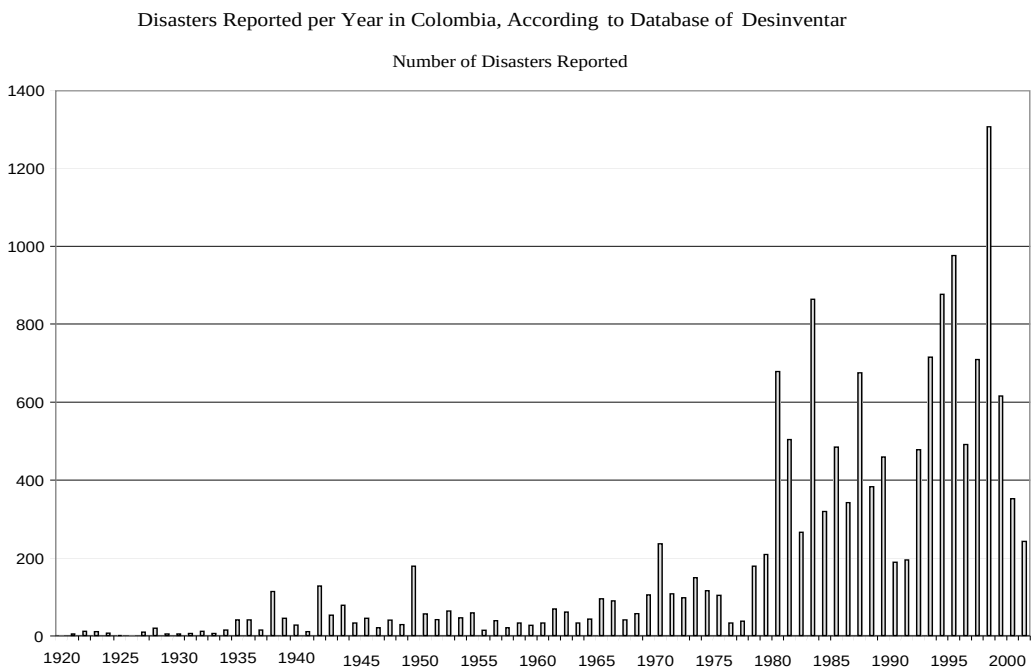
Infrequent high-impact disasters and frequent lower-impact events both have adverse effects on development. Extreme events leave a long trail of human casualties and significant economic losses, and can have significant fiscal implications in the absence of a suitable risk reduction and financial protection strategy. At the same time, smaller events that occur on a regular basis at the local level have a cumulative effect that is equally serious for the affected communities. These "minor" events repeatedly destroy livelihoods, set back local development, and perpetuate poverty. In both cases, low-income communities in urban and peri-urban areas are most affected because they are disproportionately located in areas prone to floods, landslides, and mud flows, and because their informal dwellings cannot withstand even minor seismic shocks.

Disasters on the rise

Figure 1 shows the increasing number of disasters reported in Colombia over the last three decades. This illustrates a definite rise in vulnerability, since, although some of this increase may be due to more reporting, to a great extent, the increased and cumulative vulnerability to natural and man-made phenomena is linked to the greater concentration of assets and population in areas at risk, a situation intensified by inequality and poverty. Indeed, a very large part of this growing vulnerability to natural hazards has been created by Colombia's high rate of urbanization, compounded by the location of major cities in areas at risk[205], and more serious consequences can be expected in the future. Global climate change, resulting in increased climatic variability, is likely to exacerbate the country's exposure to floods, erosion, landslide, and drought. Here again, the poor are particularly affected. The rapidly increasing population density in Colombian cities results in more and more poor settling areas of risk[206].

[204] Cardona and Yamín (2005).
[205] See Samad (2006), p. 12, and Visión Colombia II Centenario: 2019 (2005), p. 249.
[206] Samad (2006), p. 12.

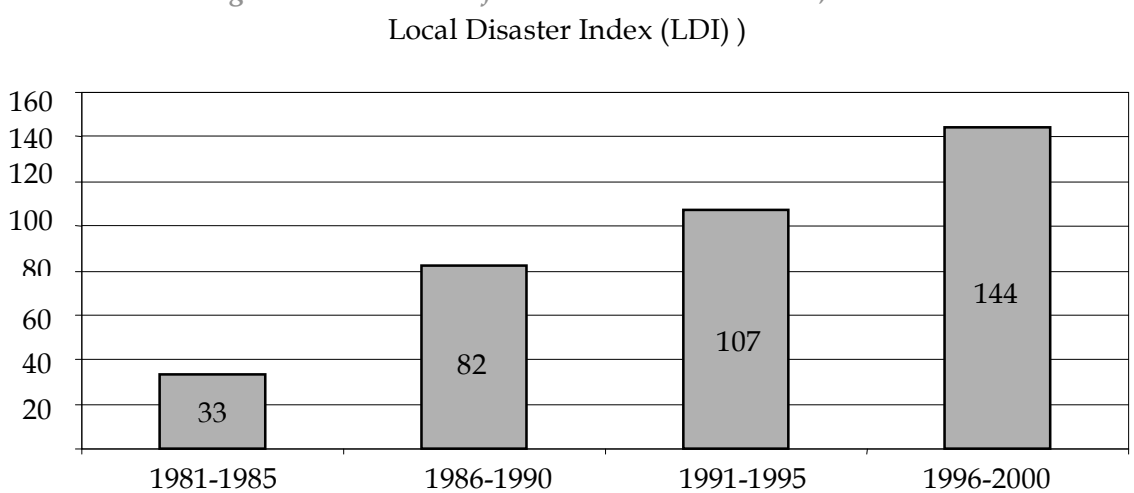
Figure 1. Reported Disasters, 1972-2000



Source*: ERN-Colombia (2004).*

Figure 2 shows the increase in Colombia's Local Disaster Index (LDI) from 1980 to 2000. The LDI[207] is an indicator of the incidence and distribution of the effects of disasters among all the municipalities of a country.

Figure 2. Evolution of the Local Disaster Index, 1980-2000



Source: Indicators of Disaster Risk and Risk Management Program for the Americas (2005).

[207] The LDI is taken from the framework of the Indicators of Disaster Risk and Risk Management Program for the Americas (2005).

The rise in the number and impact of natural disasters in Colombia is a source of concern. The significant increase presented in Figure 2 results from both an elevation in the number of events and their wide distribution throughout the country. The trend indicates a general deterioration of the resilience of communities around the country, and a significant increase of the Government's contingent liability related to disasters.

Financial exposure of the State

One study[208] estimates disaster-related contingent liabilities for the national government by calculating the probable loss[209] that could result from adverse natural events of specific return periods (100, 500 years or more)[210]. Table 2 presents estimates of the total contingent liabilities of the state as a percentage of GDP. The table includes the potential losses for the public sector (at national, departmental, and municipal level) and for the country's lowest income strata (socioeconomic strata 1 and 2). Damage to assets insured is subtracted from the total to give a clear picture of the state's net liabilities. The analysis shows that the probable losses for events of a 100 year return period are comparable to the government's pension liabilities for 2004. It also shows that exposure to an extreme event with a 500 year return period (equivalent to a probability of 2 percent in ten years) is in the order of 3 percent of GDP for the government and could reach 15 percent of GDP if private sector loses are included.

Table 2. Contingent Liabilities Due to Disasters, as Percentage of 2004 GDP

Probable losses	*L*100	*L*500	*L*1000	*L*1500	Ly
Total – USD million	9,006.02	14,602.00	17,003.14	18,368.22	1045.93
Government – USD million	1,850.50	2,923.21	3,384.27	3,647.44	225.67
Nat. gov. – USD million	647.68	1,023.37	1,184.49	1,276.60	78.98
Strata 1 & 2 – USD million	1,436.46	2,566.34	2,967.12	3,186.80	132.25
Total - percentGDP	9.19 %	14.90 %	17.35 %	18.74 %	1.07 %
Government - percentGDP	1.89 %	2.98 %	3.45 %	3.72 %	0.23 %
Nat.gov. - percentGDP	0.65 %	1.05 %	1.21 %	1.30 %	0.08 %
Strata 1 & 2 - percentGDP	1.47 %	2.62 %	3.03 %	3.25 %	0.13 %

Note: L refers to the Probable Maximum Loss (PML) per return period (i.e. 100 years, etc.) and Ly to the Average Annual Loss (AAL).
Source: Calculations based on Cardona, Yamín, and Arámbula (2005).

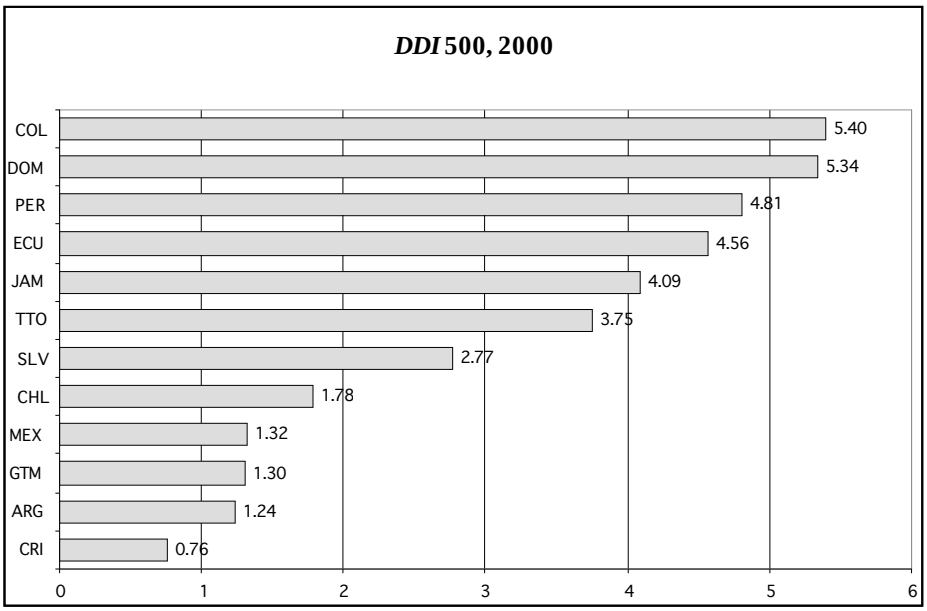
[208] Arámbula, Cardona, and Yamín (2005).

[209] Probable losses from adverse natural events are usually measured in terms of the Probable Maximum Loss (PML), which is an estimate of the largest economic loss likely to occur when a catastrophic event occurs. It is calculated using the ratio of event magnitude to expected damage. Note that it is a subjective measure, as it is defined by the insurer (for a given set of policies) depending on its resources and willingness to carry risk. See Munich Re (http://www.munichre.com/).

[210] The rate of return of a catastrophic event is the inverse of the exceedance probability, which depicts the probability that a certain level of loss will be exceeded on an annual basis. For example, loss associated with a return period of 20 years is likely to be exceeded only 5 percent of the time, or on average, in one year out of twenty.

Comparing potential losses from disaster events with government resources, recent analysis conducted as part of IDB's Indicators of Disaster Risk and Risk Management Program for the Americas[211] shows that the Colombian Government has the highest Disaster Deficit Index (DDI) among the countries that were evaluated (Figure 3). The DDI indicates whether domestic or foreign resources that could be made available in case of a disaster (including loans and foreign aid) would be sufficient to replace assets losses (direct and indirect) in case of disaster of a given return period. A DDI greater than 1 indicates a deficit on the part of the Government.

Figure 3. DDI in 500 Years, Colombia 2000



Source: *Indicators of Disaster Risk and Risk Management Program for the Americas (2005).*

Table 3 shows Colombia's DDI for events with return period of 100 to 1500 years (taking into account damage on buildings only). In all cases, the index is superior to 1, indicating that the Government would not have sufficient resources to finance the reconstruction needs resulting from these events.

Table 3. Disaster Deficit Index, Colombia 2003

DDI100	DDI500	DDI1000	DDI1500
1.28	**2.07**	**2.37**	**2.53**

Source: *Indicators of Disaster Risk and Risk Management Program for the Americas (2005).*

[211] IDB (2005). The DDI shows the relationship between probable losses (with indicated periods of return) and government capacity and the domestic or foreign resources available to it (its economic resilience). A DDI superior to 1 indicates that a government would not be able to replace the assets for which it is responsible.

This situation must be considered from a fiscal point of view, and suitable risk reduction and risk transfer alternatives must be explored. Failure to do so would result in increased exposure of the state and adversely impact the country's prospect for development, putting at risk Vision 2019's goal of maintaining macroeconomic stability[212].

Disaster risk management difficulties and challenges

Colombia is recognized as a Latin American leader in disaster management. The National Directorate of Disaster Prevention and Response (DPAD), created in 1988, coordinates actions within the National System for Disaster Prevention and Attention (SNPAD). The move from ad-hoc solutions to an institutionalized mechanism to coordinate all aspects of disaster management was a significant advancement. The adoption of a decentralized, inter-institutional, and participative structure, instead of the national authorities' old rescue schemes, was also a considerable improvement. Nonetheless, SNPAD's reach and effectiveness have been plagued by setbacks and deficiencies, a number of which are listed below:

- The change in the system's ascription, originally within the purview of the Presidency of the Republic, and now at the Ministry of the Interior, has reduced the system's importance with respect to the administrative systems and has detracted from its relation with the President, who is constitutionally in charge of public order;
- Relegated to a position of second order, the System's Directorate has not always been able to effectively coordinate the actions of government institutions. In some case, new initiatives have been implemented without any prior consultation with the institutions of the system. The Presidency of the Republic has itself limited the system's performance, as it has resorted to exceptional powers established in the Constitution (economic, social, and ecological emergency, Art. 215 C.P), to face disaster situations;
- For a number of reasons, the Directorate's emphasis has been primarily on preparedness and ex-post emergency response. Efforts at encouraging risk reduction activities have generally been uncoordinated and short lived. In particular, the system is poorly aligned with the State's land-use planning system. This limits its effectiveness and may have led to inefficient investments, as well as some redundancy of information and command and control channels;
- As it stands, the system's capacity to support large reconstruction operations is limited. In particular, the system's fundamental premise is reliance on local institutions at the moment of a disaster. Unfortunately, few municipalities to date have the capabilities necessary to confront major emergencies by themselves;
- The use and promotion of risk transfer mechanisms is only just beginning, despite its importance for the country's financial protection.

[212] DNP (2005); Visión Colombia II Centenario: 2019, pp. 121-136.

The need to update existing legislation

There is consensus in Colombia that the SNPAD needs to be modernized in order to harmonize its mandate with the fundamental principles of the 1991 Constitution. The system's current structure and resources confine it to the provision of an inadequate response to disaster risks. It also lacks the necessary institutional and financial mechanisms to address existing and future risks efficiently through effective corrective and prospective mitigation measures. Finally, the areas of risk financing and risk transfer, which have evolved in recent years, are absent from the system's mandate. It is clear that reforming the SNPAD does not mean the removal of mechanisms that are effective, or that the required changes are endemic rather than organizational in nature. However, fundamental changes are required if the system is to have a substantial impact on the country's exposure to disaster risk.

First, the concepts of risk and risk management should become the cardinal principles of the system, replacing those of disaster and calamity. This shift in emphasis does not mean that the SNPAD is moving away from its original goal of preventing, mitigating, and responding to natural disasters and other calamities where possible. However, it does mean shifting its primary focus to an earlier phase in the process, where the concepts of hazard and vulnerability are managed, as opposed to disaster and recovery. In the same way, the SNPAD and its actions must be more closely linked to the National Planning System (DNP) and aligned with the National Environmental System (SINA), as well as linked to the task of integrating disaster risk management into the local, regional, and national development programs. There is a need to adopt a radically different view of disasters, which are too often perceived as external occurrences beyond human control. Instead, disasters should be perceived as a manifestation of underdevelopment, or as the perverse effect of a development process that has failed to take into account environmental hazards, populations' vulnerabilities, and the inability of communities to confront these threats.

Without full integration of disaster risk into development planning, disasters will not only be inevitable but will strike with increasing frequency. The experience of recent years shows that a well-functioning National System for Disaster Risk Management could achieve greater coordination in line with the principles and provisions of the 1991 Constitution. Although studies have already been carried out and recommendations have been made, one of which has been incorporated into work recently carried out by the DNP and the DPAD with World Bank support, the final process of coordination and adaptation to modernize the SNPAD has yet to be initiated.

Need for a stronger emphasis on vulnerability reduction

The introduction of land-use planning in Colombia gave rise to the integration of risk reduction into territorial planning under Law 388 of 1997. A number of cities and municipalities are carrying out risk management in a sound and even exemplary manner. In many cases, detailed disaster risk mapping and risk assessments have facilitated effective

decisionmaking. Cities such as Manizales, Pereira, and Medellin have developed housing relocation and environmental projects, which include well-implemented mitigation efforts through activities coordinated with the community[213]. In Bogotá, numerous programs for the water, energy, and natural gas networks, as well as for municipal entities such as the secretaries of health, education, planning and the institute of urban development, among others, have led to significant investments for risk reduction in schools, hospitals, and bridges. See Box 1.

Box 1. The Sistema Distrital de Prevención y Atención de Emergencias in Bogotá

Bogotá District's system for prevention and emergency response has been very successful in integrating disaster risk management in its investments program. The system follows the national framework and has a Directorate for Prevention and Emergency Response (DPAE) that provides technical assistance to all the District's agencies and coordinates all the efforts of the system's members. Bogotá District has been able to mainstream disaster risk management in the investment programs of key agencies. Such is the case of the Health Secretariat, which is responsible for construction and maintenance of health facilities, and the Education Secretariat, responsible for educational facilities, which have now engaged in an ambitious program to strengthen their infrastructure of schools. DPAD is currently working with the DPAE to strengthen channels of communication between the national and local levels.

Unfortunately, the vast majority of municipalities have failed to efficiently consider risk in their development plans. The location and expansion of urban centers in areas at risk is one of the most significant sources of disaster vulnerability in Colombia, as illustrated in Table 4, which presents the estimated number of homes located in disaster prone areas for various regions of the country.

Table 4. Dwellings Located in Mitigable and Non-mitigable Risk Areas

Region	Dwellings located near river sources	Dwellings at risk			percent
		Mitigable risk areas	Non-mitigable risk areas	Total	
Atlantic	1,358,530	176,966	85,825	262,791	25.5 %
Oriental	1,182,475	162,657	13,034	175,691	17.0 %
Bogotá	1,807,312	122,720	5,746	128,466	12.4 %
Cauca Valley	884,271	73,115	50,234	123,349	12.0 %
Central	936,045	102,507	19,762	122,269	11.8 %
Antioquia	1,086,418	47,778	52,984	100,762	9.8 %
Pacific	316,347	43,913	46,169	90,082	8.7 %
Orinoco & Amazon	122,796	21,514	5,070	26,584	2.6 %
San Andres & rovidence	19,009	0	2,018	2,018	0.2 %
Total	7,713,203	751,170	280,842	1,032,012	100.0 %

Source: *DANE (2003). Calculations by DNP and Directorate of Urban and Environmental Policy.*

The Ministry of the Environment, Housing and Territorial Development and the National Planning Department have recently taken steps to address this problem. New policies to

[213] For example, the *Guardianas de la Ladera* (Guardians of the Hillside) program in Manizales.

support intervention in risk areas, including the resettlement of vulnerable populations, are being prepared. The use of subsidies to encourage the retrofitting of existing houses and housing construction in risk-free areas is being revisited. A new guide on the integration of risk into land-use plans has also been published in order to assist territorial entities, and will supplement the general documentation published since Law 388 of 1997. But much more remains to be done if the country's exposure is to be significantly reduced. It is critical to address budgetary constraints that have been a serious limiting factor.

Need for a financing strategy

The financing of SNPAD is marked with serious operational deficiencies. Its budgetary allocations are unpredictable and have trended downward over time. Its Calamity Fund (FNC) has insufficient resources. At the same time, the ordinary budgets of agencies that are part of the system are insufficient to address the increasing needs for risk mitigation and rehabilitation around the country. A more strategic approach to budget appropriation related to disaster risk would help the SNPAD to progress toward its fundamental goal of disaster prevention and response. Among possible approaches, recent development in risk modeling techniques could be used to estimate probable losses and help establish a financing strategy aimed at stabilizing budget appropriations while addressing the need for risk reduction investments. A combination of annual allocations, reserve funds, contingent loan funds, and other financial instruments[214] would greatly reduce the variability of budget appropriations related to disaster emergencies.

The development of a comprehensive financing strategy is also essential for the country's fiscal stability. While public policies on risk retention and risk transfer are still in their infancy, efforts by the national and some local governments have led to a considerable broadening of the scope of risk analysis and to the development of instruments that can be used to protect the state against losses resulting from natural disasters. The experience of national agencies, as well as that of Bogotá and Manizales, includes the use of risk transfer instruments to protect public infrastructure, and the promotion of collective insurance of private assets. Innovative mechanisms have also been used to subsidize the coverage of the poorest socioeconomic strata[215]. Although efforts have thus far been limited to pilot programs, these early examples demonstrate that the country would greatly benefit from renewed efforts to reduce and cover at least part of its financial exposure. Extension/full implementation of these programs would require the committed participation of the Ministry of Finance and Public Credit in developing an effective financial protection strategy for both the national and local governments.

[214] As catastrophes are infrequent high-impact events, there is a high variance of extreme losses from the expected loss. This "catastrophe load" can be dealt with by setting aside reserves (at least as high as the PML), by setting up annual allocations or contingent loan funds (loan given if a pre-determined event happens), and through other means, such as by tapping the international financial markets.

[215] Consorcio Evaluación de Riesgos Naturales (ERN) Manizales (2005).

Policy recommendations

A major disaster occurring in Colombia today would have significant fiscal implications for the State, and could pose serious setbacks to economic growth and poverty reduction. At the same time, smaller but recurrent events have a marked negative effect on local development. To reduce the impact of adverse natural events and mitigate fiscal exposure, Colombia needs to integrate the concept of risk management into its development process. This would involve:

- *updating legislation* to modernize and strengthen the existing institutional framework, with emphasis on risk reduction as a fundamental mandate of the SNPAD;
- *defining a disaster vulnerability reduction strategy* which prioritizes and facilitates the integration of disaster risk management in territorial planning processes; and
- *developing a comprehensive financing strategy*, including an enhanced risk assessment program to guide the efficient implementation of investments in risk reduction, and allow for the development of insurance mechanisms to cover private and public assets and protect the national budget.

These recommendations have been organized in order of implementability, starting with the more immediate actions that could be taken by the Administration and moving down to activities with potentially higher economic and political costs:

Update legislation to modernize and strengthen the existing institutional framework, with emphasis on risk reduction as a fundamental mandate of the SNPAD. This activity should be spearheaded by the DPAD, MHCP and the DNP.

- As soon as possible, strengthen the DPAD's ability to fully carry out its role as coordinator of the SNAPD. This would require a revision of its organizational structure and stabilization of its budget, including predictable appropriations to the FNC[216];
- Update the existing legislation to promote a National System for Disaster Risk Management, in accordance with existing needs, including the revision, public consultation, and legal processing of such legislation;
- Establish a clear accountability framework that better defines the scope and form of state interventions in case of disasters.

[216] Building capacity in related agencies will be an important complement to a strengthened SNAPD. Initial efforts in DNP, such as the institutional strengthening strategy partially funded by 'The Regional Andean Program for the Prevention and Mitigation of Disasters"/CAF is a good first step in right direction.

Define a disaster vulnerability reduction strategy that prioritizes and facilitates the integration of disaster risk management in territorial planning processes, under the guidance of the Ministry of the Environment, Housing, and Territorial Development.

Encourage proper incorporation of risk management into municipal, regional, and national development plans, with a particular emphasis on land use planning at municipal level;

- Establish a list of risk mitigation interventions strategic to the nation, and finance their implementation.
- Define policies and enforcement mechanisms to prevent the settlement of populations in risk areas, including the definition of resettlement policies in case of natural disaster risk and the promotion of programs to avoid resettlement in risk areas that have been vacated[217];
- Update building standards and strengthen compliance with these regulations in order to reduce physical vulnerability;
- Incorporate risk management themes into public education and information programs;
- Incorporate risk management into sector planning and assure its financing strategy[218], and
- Prioritize preventive resettlement and treatment of at-risk areas, consistent with a housing policy and services that are truly geared toward the poorest of the society.

Develop a comprehensive financing strategy, including an enhanced risk assessment program to allow the efficient implementation of insurance mechanisms to cover private and public assets and protect the national budget[219]. This activity should be directed by the DNP and the Ministry of Finance and Public Credit (MHCP).

- Continue to support the implementation of a detailed assessment of potential losses in the main cities, to guide mitigation activities and support the development of efficient disaster risk transfer strategies in key geographical areas and sectors. DNP is one year into the process of updating a data base on public assets and their vulnerability to natural disasters, and Manizales, Bogota, among other cities, have prepared risk maps;

---

[217] The emerging need for the resettlement of populations in the proximity of the Galeras Volcano could provide an interesting pilot for the definition of resettlement policies. DNP has begun to prepare resettlement policy guidelines for Galeras.

[218] See Visión Colombia II Centenario: 2019, p. 202.

[219] The Government has been authorized to for two loans from the World Bank to partially finance a program of reduction of fiscal risk of the National Government and the District of Bogota to natural disasters (Conpes 3318 of 2004 for the Nation and Conpes 3398 of 2005 for the District of Bogota).

- Establish a financing system suited to the needs of SNPAD that would allow for stable levels of investment programs and reserves. The system should allow for the use of resources, loans, and other available financial mechanisms;

- Establish a risk financing strategy to protect the national budget against disaster shock, employing the diverse financial instruments available in Colombia and in the international markets. The Nation has a US$150 millions contingent loan to cover the first layer of risk, and is currently studying other instruments such as catastrophic bonds and collective insurance policies;

- Review current legislation on the insurance of public assets in order to improve current practices and expand reach; and

- Encourage the use of insurance for public and private assets, among other means, through the use of collective insurance mechanisms.

Annex 1. The Case of Manizales

The City of Manizales in the coffee-growing region of Colombia provides a good example of how a combination of technical and scientific work, political and administrative will, and the community's acceptance can lead to successful initiatives. For the last 30 years, the city has invested heavily in the science and technology of disaster risk reduction. The administration has encouraged the diffusion of knowledge about the causes and factors that contribute to risk, and has supported the participation of citizens in the planning processes. In addition, Manizales has promoted respect for the environment and for the municipality's challenging geographic, topographic, and climatic conditions. This multi-disciplinary and inter-sectoral work has contributed to improving the quality of life, the vulnerability reduction of communities, and the protection of the economic and social development of the city.

The policies and actions of the local administration can be classified in four main categories: (i) risk identification; (ii) risk reduction; (iii) disaster response and reconstruction, and (iv) risk transfer.

Disaster risk identification has been characterized by the following elements:

- A network of accelerographs and of pluviometric stations that operate under an inter-administrative agreement with the Ingeominas and the National University of Colombia, are used to monitor hazards and alert the population in case of emergency. The Observatory of Volcanology and Seismology continuously watches the area's volcanoes and regional seismic activity;

- The city supports and strengthens the role of science and technology in the identification and evaluation of hazards, vulnerability, and risks. Geologic maps on erosive processes and areas at risk have been commissioned and are used for land-use planning. Proposals for the city's structural vulnerability reduction measures have been based on studies of hazards and risks. The city's seismic microzonation makes it easier for the building designers to efficiently apply the seismic building code;

- The concept of disaster risk management is part of the city's social programs. For example, the program "Guardians of the Hillside" involves head-of-family mothers in the maintenance of works for the stability of slopes, for which they receive payment. This also promotes training on risk management within the community;

- The concept of disaster risk has been incorporated into the formal education and there has been continuous work with the media to disseminate the message. The school program on disaster prevention is incorporated in the core curriculum of schools in the city.

Risk reduction, which basically corresponds to mitigation and prevention measures ex ante and is linked to development planning, has been characterized by the following aspects:

- The Municipality has been promoting the incorporation of risk into land-use planning in an exemplary manner, even before its introduction at the national level, first in its development plans and later in its territorial planning. The city offers environmental valuation to *Corpocaldas* with the purpose of financing permanent risk mitigation and disaster prevention activities;

- Manizales has had a Construction and Urbanization Code since 1981 that incorporates earthquake resistance requirements. This was the first code of this sort to be issued in the country;

- Since the 1970s, the municipality has been implementing a relentless program of slope stabilization. Most of the works have been implemented through Corpocaldas (previously CRAMSA) and the Secretariat of Public Works;

- The municipality has an ongoing investment program for the retrofitting of vulnerable assets. The municipality has used resources from different sources to strengthen key assets including as the Caldas hospital, fire brigade stations, the headquarters of Governor of Caldas, several schools, university buildings, and recently the Basilica Cathedral and Los Fundadores Theater;

- A large number of relocation projects have been implemented through associative programs for dwellings in high non-mitigable risk areas. The freed-up areas resulting from these relocation programs have been recovered and adapted to new uses with the help of the community.

Disaster management policy, which corresponds to ex-post measures such as emergency response, rehabilitation and reconstruction, has been characterized by the following:

- The city has a Municipal Emergency Plan (PEM) that directs the response in case of crisis and defines the operational procedures and the coordination mechanisms that facilitate inter-institutional action;

- Simulation exercises take place on a periodic basis and involve municipal agencies at all levels, as well as the local offices of national institutions;

- The municipal administration strengthens and supports rescue agencies through inter-administrative agreements that facilitate the response to emergencies;

- The city has a specialized procedure for damage evaluation in case of an earthquake, with the purpose of defining habitability and reparability in the shortest time possible. It has specific manuals, evaluation forms, and a computerized expert system for the evaluation of building safety;

- There are pre-defined and suitable administrative decrees for the demolition of buildings in danger of collapse;

- The city supports the temporary lodging of affected people, prior to the development of the social housing programs that result from post-disaster reconstruction or from the relocation of houses in areas of high risk.

Finally, the fourth policy of the management is the transfer of disaster risk, the objective of which is to protect the municipality financially when faced with losses to its public as well as to private buildings. It has been characterized by the following aspects:

The recently updated seismic microzonation of the city is used to optimize the municipality's financial protection strategies in case of damage to its public buildings, and to evaluate the risk of all private buildings, with the purpose of collective insurance;

The city has a mechanism of collective insurance through the property tax. This mechanism has recently been studied in a careful manner so as to improve its efficiency and the full coverage (though cross subsidies) of tax-exempted properties inhabited by the city's poorest population;

The most recent technological contributions in this field have been two-pronged: (i) the design and implementation of a software program for automatic calculation of the spectral acceleration for earthquake-resistant design; used in conjunction with (ii) the geographic information of the city's seismic risk scenarios for insurance purposes.

References

Cardona, Omar D., and Gustavo Wilches-Chaux. 2004. *Estudio sobre desastres ocurridos en Colombia: Estimación de pérdidas y cuantificación de costos.* Study commissioned by the Departamento Nacional de Planeación (DNP) and the Agencia Presidencial para la Acción Social y la Cooperación Internacional (ACCI), with assistance from the World Bank.

Cardona, O.D., and L.E. Yamín. 2005. *Disaster Risk Information from the Pilot Case Study: National Study of Colombia.* Economic Commission for Latin America and the Caribbean (ECLAC) and the Inter-American Development Bank (IDB).

Cardona, O.D., Yamín, L.E., and Arámbula, S. 2005. Definición de la responsabilidad del Estado, su exposición ante desastres naturales y diseño de mecanismos para la cobertura de los riesgos residuales del estado. Consorcio Evaluación de Riesgos Naturales-ERN Manizales.

Cardona, O.D., Yamín, L.E., and Arámbula, S. 2005. Estrategia para la protección financiera y la reducción del riesgo de los inmuebles públicos y privados de Manizales. Study done in the context of the Project Definición de la responsabilidad del Estado, su exposición ante desastres naturales y diseño de mecanismos para la cobertura de los riesgos residuales del estado. Consorcio Evaluación de Riesgos Naturales-ERN Manizales. ACCI, DNP, and the World Bank.

Consejo Nacional de Política Económica y Social (CONPES) 3131. 2001. *Plan de Finalización de la Reconstrucción del Eje Cafetero y Cierre del FOREC.* República de Colombia. Departamento Nacional de Planeación. Study supported by the Andean Development Corporation (CAF).

DANE (National Statistics Department) and ECV (Living standard measure survey). 2003. Calculations by DNP – DDUPA (Directory of Urban and Environmental Policy).

Departamento Nacional de Planeación (DNP). 2005. *Visión Colombia II Centenario: 2019.*

DesInventar database, the Social Studies Network for Disaster Prevention in Latin America (La RED). Last updated in 2003. http://www.desinventar.org/desinventar.html

Echeverri Garzón, Juan Carlos. 2002. Economía del Estado en Situaciones de Emergencia.

Inter-American Development Bank (IDB). 2005. Disaster Deficit Index (DDI), from the Framework of Indicators of Disaster Risk and Risk Management Program for Latin America and the Caribbean. Economic Commission for Latin America and the Caribbean (ECLAC), Universidad Nacional de Colombia - Sede Manizales (UNC) and Instituto de Estudios Ambientales (IDEA). http://www.iadb.org/exr/disaster/idea_ddi.pdf

Inter-American Development Bank (IDB). 2005. Local Disaster Index (LDI), from the Framework of Indicators of Disaster Risk and Risk Management Program for Latin America and the Caribbean. Economic Commission for Latin America and the Caribbean (ECLAC), Universidad Nacional de Colombia - Sede Manizales (UNC) and Instituto de Estudios Ambientales (IDEA).
http://www.iadb.org/exr/disaster/index.cfm?language=en&parid=1

Munich Re. *Natural Hazards and Insurance.* http://www.munichre.com/

Samad, Taimur. 2006. Colombia's Urban Challenge: Improving Housing and Infrastructure Services for the Urban Poor.

Risk Management in Colombia: Putting People at the Center Building on recent progress, addressing emerging challenges[220]

Abstract: The 1998/99 economic crisis, the worst in more than 70 years, had major and long-lasting effects on poverty and unemployment in Colombia, and made the Government acutely aware of the need to develop a social risk management strategy to protect its citizens from the worst consequences of job-related health hazards, old age indigence, and chronic poverty. Since 2002, the newly consolidated Ministry of Social Protection has made significant progress in developing and institutionalizing a Social Protection System. Despite considerable progress, however, the Government faces a number of ongoing and emerging challenges to fulfilling its social risk management agenda. This Policy Note identifies four priority areas of action necessary to achieve that goal: (i) strengthen the system's coherence and efficiency; (ii) increase coverage of unprotected groups; (iii) respond to changing economic circumstances; and (iv) address social protection financing challenges. This Note also identifies some key institutional challenges to reform and strengthening of the Social Protection System, and outlines a possible agenda for the new Administration's first 100 days.

[220] This chapter was written by Wendy Cunningham with the collaboration of Andrew Mason.

Introduction

This Policy Note is intended to bring to the attention of the incoming Government key challenges and actions that could strengthen its ability to support and protect its population from socio-economic risks.

The 1998/99 economic crisis, the worst in more than 70 years, had major and long-lasting effects on poverty and unemployment. The poverty headcount, which was at 50.9 percent in 1996, reached 57.5 percent in 1999 and 57.8 percent in 2002, returning to pre-crisis levels only in 2005. Unemployment, which had averaged 10-11 percent from 1983-95, peaked at 20 percent in 2000[221]. The crisis also uncovered perverse links between the existing system of social insurance and employment status, which left newly unemployed persons without protection at a time that they needed it most. This, in turn, revealed tremendous gaps in the country's social safety net, and led to the creation of a limited Social Safety Net (*Red de Apoyo Social,* or RAS). More profoundly, the crisis revealed the need for the Government of Colombia to rethink its approach to social risk management.

Following the crisis, the Government recognized the need to develop a coherent Social Protection System. To that end, the Government:

- Identified the structure for a consolidated Social Protection System (SPS), based on a unified *social risk management framework* (Box 1); and
- Created a single social protection institution from the Health and Labor ministries. The new consolidated entity, the Ministry of Social Protection (MSP),

[221] World Bank (2005b). These unemployment figures refer to Colombia's 13 largest municipalities. For the entire country, the figures are slightly lower. But the size of the impact of the crisis and the long period it took to recover to (near) pre-crisis levels are very similar whether using data from the largest municipalities of from the country as a whole.

established under Law 789 of 2002, is responsible for managing and overseeing the new Social Protection System[222].

Based on this framework, the Government of President Uribe has undertaken a number of measures to reform, restructure, and strengthen Colombia's Social Protection System. In addition to the new Ministry of Social Protection, which is organized to better address the cross-cutting and multi-sectoral nature of socio-economic risk and social risk management[223], the Government has also worked to: (i) improve the efficiency and targeting and extend coverage of the country's main *social assistance* programs; (ii) strengthen and extend the coverage of *social insurance* programs to workers outside the formal sector of the labor market; and (iii) strengthen *results-based management* of social protection through monitoring and evaluation[224].

This comprehensive Social Protection System is at the heart of the social policy articulated in Colombia's Centenary Vision 2019[225], which aims to reduce poverty and inequality and establish the conditions for equitable and inclusive economic development. The SPS is focused, in particular, on strengthening protection against the risks of unemployment and health shocks; on providing old age security; and on developing the human capital and skills among the poor and vulnerable, in order to increase their chances for employment[226].

[222] CONPES 3144 (Creation of a Social Risk Management System and CONPES 3187 (Institutional Development of the Social Risk Management System and a Social Protection Fund) were approved under the Pastrana Administration (December 2001 and July 2002, respectively) and implemented by the Uribe Government.

[223] For example, when the Ministries of Labor and Health were separate entities, some very good Ministry of Health initiatives, such as free health insurance for the poor without formal sector jobs, actually created disincentives to the labor market behavior preferred by the Ministry of Labor – workers would refuse formal sector jobs since they would lose their free health insurance! By joining these two ministries, risk management, rather than institutional responsibilities, is becoming the core of the country's social protection strategy.

[224] It is worth noting that the actions taken by the current Government of Colombia are consistent with several key recommendations laid out by the World Bank is its last compilation of policy notes for Colombia, *The Economic Foundation of Peace*, which argued for the establishment of a national social risk management system (World Bank 2003).

[225] As stated in the document: "The solutions to social problems are not only technical or resources; more than that, they are policy and institutional. More important than the amount of resources allocated to a goal is to ensure the norms, regulatory frameworks, institutional arrangements, and obtain the consensus necessary to implement effective policies."

[226] Presidencia, Planeta, Departamento Nacional de Planeación (2005).

Box 1. Social Risk Management – a Framework for Protecting Well-Being

Social risk management is the effort to limit the factors that negatively affect well-being over a person's lifetime. It has two primary objectives: (i) controlling the incidence of negative income shocks; and (ii) rearranging income across time to minimize the negative impacts of its loss. The framework has three basic components:
Risk prevention: measures that limit the occurrence of negative events, such as good macroeconomic policy (limiting the risk of economic crises), mosquito control (limiting the risk of malaria and dengue), and quality roads (limiting the risk of traffic accidents).
Risk mitigation: measures that limit the impact on well-being of negative events, such as increasing access to education, to enable individuals to better withstand economic crises; providing vaccinations to limit the effects of disease; and requiring the use of seatbelts, to decrease the likelihood of serious injury during a traffic accident.
Coping: measures to compensate for income or consumption lost due to the occurrence of a negative event, such as unemployment insurance for job loss, cash transfers to the elderly who paid into pension systems, and personal savings to pay for health care in case of injury or illness.
Three actors contribute to the portfolio of risk management tools: the individual, through private mechanisms such as family networks, savings, building human capital; the market through insurance mechanisms and incentives; and the State, through good macroeconomic policy, good regulation and enforcement, publicly funded insurance, and social assistance.
Ideally, private actors – the individual and the market – would manage risk, but the reality is that some individual decisions are not socially optimal and that some risk management tools cannot be provided privately or through markets, so there is a strong role for the State. Exactly whose risk the State protects, which elements of the risk portfolio the State supports, how it is financed, and how the State achieves this plan, are based on a multitude of country-specific characteristics that change over time. These include the existence of private coping mechanisms, the degree of poverty, the nature of risks, the health of markets, the financial situation of the public sector, social justice expectations, and Government capacity, to name a few.

Sources: *World Bank (2000); Becker and Erlich (1972); DNP (2002).*

The efforts of the current administration have begun to bear fruit. Specifically:

- Unemployment declined from its height of 20 percent in 2000 to roughly 12 percent by late 2004, with a portion of the gains attributable to the country's recent labor reforms (World Bank 2005b);

- Between 2002 and 2004, affiliation with contributory health insurance grew by 13 percent, and affiliation with occupational hazard (riegos profesionales) insurance grew by 16 percent;

- By 2004, non-contributory health insurance had been extended to more than 16 million people, up from slightly more than 10 million in 2002;

- From 2002 to 2004, more than 190,000 elderly poor people per year (roughly 30 percent of the target population) received social assistance pensions;

- Programs to alleviate the risks faced by vulnerable children aged 0-7 increased significantly through such programs as Familias en Acción (one million children covered), Desayunos Infantiles (also one million), and school feeding programs (2.7 million children); and

- Pilot programs were implemented to test new ways to protect against unemployment shocks (unemployment insurance); smooth labor market entry for hard-to-employ workers (public works, wage subsidy program, tax waivers, expanded apprenticeship programs); provide regular payments to urban families and displaced families who send their children to school and ensure regular health care (Familias pilots).

Despite these advances, social protection reform in Colombia is a work in progress, and the new Administration faces four key sets of challenges:

- Strengthening the coherence and efficiency of the emergent Social Protection System;

- Increasing program coverage, especially among the poorest, most vulnerable groups;

- Responding to a changing economic environment – including changes emanating from the forthcoming Free Trade Agreement with the United States – and new social protection needs emerging as a result of these changes; and

- Financing the country's Social Protection System in an appropriate and sustainable way.

The following section discusses these challenges in more detail. Section 3 examines the policy implications of these challenges for the new Administration, and highlights several short-term priorities that could be addressed in its first 100 days. The Note concludes with a brief discussion of potential political economy challenges involved in strengthening the Social Protection System.

A key message of this Note is that the new Administration has the opportunity to build on the considerable progress made in establishing a national social risk management system since the MSP was created in 2002; but that further progress will also depend on addressing emerging challenges in social protection and social protection financing.

Ongoing and Emerging Challenges

Strengthening the coherence and efficiency of the Social Protection System

Efforts to refine and operationalize Colombia's vision for social protection are ongoing in the Ministry of Social Protection through a extensive agenda of studies, debates, and policy discussions. The National Planning Department, through the *Misión para el Diseño de una Estrategia de Reducción de la Pobreza y la Desigualdad* (MERPD), is also undertaking a forward-looking strategy exercise. Nonetheless, further work is required to ensure the development of a coherent long-term vision for social protection and a clear strategy for achieving it.

Some elements of Colombia's vision are clear – for example, its commitment to universal health coverage – but other aspects would benefit from further definition. Among other things, it will be important to:

- Further define the role of universal versus targeted approaches to providing social protection[227];
- Clarify the benefits, costs, and feasibility of establishing a unified social protection system versus simply strengthening coordination across sectors and across a multiplicity of existing, differently designed programs[228]; and
- Analyze how to develop compatible sets of incentives across different programs within a single sector (e.g., contributory vs. non-contributory pension regimes, contributory vs. subsidized health insurance).

The way incentives are designed is particularly important to ensure that the Social Protection System does not contribute to de-formalizing the labor market – a issue of concern for a number of the countries in the Latin America region.

Once a coherent vision and strategy are developed, Colombia will face the increasing challenge of clarifying the institutional structure of its social protection strategy. Many agencies and programs still operate independently of the Ministry of Social Protection, leaving room for a range of inefficiencies, whether in the form of coverage gaps or duplication of efforts. The relationships and division of responsibilities between the MSP and the key social protection institutions that are under its auspices – the National Training Service (*Servicio Nacional de Aprendizaje* - SENA), the Colombian Institute for Family Welfare (*Instituto Colombiano de Bienestar Familiar* - ICBF), and the Family Benefit Association (*Cajas de Compensación Familiar* - CCF) – are also unclear. These institutions are also responsible for policy and/or regulation in their respective sectors, as well as for implementation, which creates operational inefficiencies and, perhaps, conflicts of interest.

---

[227] A "universal" approach provides the same risk management tools to everyone, regardless of their needs or ability to pay. A "targeted" approach only provides to those who meet certain targeting criteria.

[228] A unified system takes into account the incentives and outcomes of each piece of the social protection puzzle and ensures that they are complementary, as opposed to a system that allows for these differences to exist but smooths the tensions between them.

Lack of institutional coordination is particularly acute in the case of social assistance programs. While the MSP is responsible for defining the Social Protection System and managing its implementation (together with the Department of Planning - DNP), the Social Action branch of the Presidency (*Acción Social-Presidencia de la Republica*) is, at the same time, independently building a strong and effective social assistance program. Originally, Social Action housed the emergency RAS[229] and the complex social assistance programs for the displaced populations, but as these programs become permanent, the division of responsibilities between the MSP and Social Action are blurring. This is particularly true in the light of recent discussions to create in Social Action a process, being called *Colombia Solidaria*, whereby teams of social workers would guide poor, vulnerable families through the social assistance and social insurance programs until they can graduate to the social protection portfolio of the more general population[230].

Related to this effort, the successful and popular *Familias en Acción* program – the only survivor from the RAS – is envisioned to, under Vision 2019, become a permanent program to combat structural poverty. However, it is unclear how the program will fit into the SPS, particularly since other programs have similar structural poverty mandates.

Finally, increasing the coherence and efficiency of the Social Protection System will require a more systematic approach to results-based management of the sector, including consistent monitoring of program outcomes and evaluation of the impact of social protection interventions. As part of its commitment to results-based management, the Government has begun to strengthen it monitoring and evaluation capacity in the social sectors. This, in turn, has led to a rigorous impact evaluation of its conditional cash transfer program, *Familias en Acción,* and of a recent employment generation program, *Empleo en Acción*, as well as smaller evaluations of SENA and ICBF programs, among others. Most of these efforts have been undertaken on a somewhat *ad hoc* basis – although efforts to develop a more systematic approach to monitoring and evaluating programs and institutions are underway (with World Bank support). The next step will be to strengthen the linkages among the monitoring data, evaluation results, and policymaking.

Increasing coverage

Challenges also remain with respect to extending social protection to unprotected group, and closing significant gaps in coverage in many areas of risk. For example:

- About 36 percent of the population still lacks health insurance, through either the contributory or subsidized regimes;

[229] The RAS was created quickly in 2001 to provide temporary assistance to the population most affected by the 1998/99 crisis. The Presidency was the ideal home for this emergency safety net program, which was covered by the social mandate of the Presidency and could bypass the bureaucratic processes of the ministries.

[230] This program would be similar to the *Chile Solidario* program, which has been operational for several years.

- Most informal sector workers – nearly 55 percent of the Colombian workforce – do not have occupational hazard insurance;
- The unemployment subsidy program is a poorly targeted, small program only reaching 100,000 people (who may or may not be unemployed) each year;
- In 2005, about 57 percent of the economically active population was covered under the old RPM PAYGO or new RAI schemes – although only 27 percent of workers regularly pay in contributions[231];
- Support for the elderly extreme poor, while having increased, still reaches only about 30 percent of target population;
- Coverage of social assistance and efforts to invest in the human development of the poor, particularly among 0-7 year olds and special target groups (youth, indigenous and Afro-Colombians, the disabled) also remains low;
- While an estimated two million people have been displaced from their homes, few are benefiting from the many programs designed to help them integrate into their new communities or return to their homes[232].

These coverage gaps are largest among the poorest and most vulnerable groups. Affiliation with health coverage, for instance, is estimated at 83.6 percent for the wealthiest 20 percent of the population, but at only 47.7 percent among those in the poorest quintile[233].

Decisions regarding how broadly to extend coverage (i.e., universal vs. targeted), and in response to which risks, will depend to some degree on the new Administration's long-term vision and strategy for the Social Protection System. It will also depend on the country's fiscal situation and on choices about how to finance different forms of social protection (see below).

Responding to a changing economic environment and to changes in social protection needs

The response to a changing economic environment, and to changes in the need for social protection, represents a third set of challenges for the incoming administration vis-à-vis social protection.

An important example of the changing economic environment is the forthcoming Free Trade Agreement (FTA) between Colombia and the United States. Analyzing the expected short- and long-term welfare impacts of the FTA, the recent Country Economic Memorandum for Colombia[234] found that while most Colombians are expected to

[231] Casteñeda (2005).
[232] The Constitution guarantees Government assistance to this population so that they may integrate back into society. Social Action operates several programs to this end, but due to difficulties in identifying who the eligible population is, their frequent relocation, and their concern about being identified and registered , the programs are under-utilized.
[233] Nuñez and Cuesta (2006).
[234] World Bank (2005a).

experience welfares gain from liberalization, as many as 38.8 percent of all households and 41.5 percent of rural households may be adversely impacted by changes in agricultural prices (the net effect of consumption benefits and production losses). While the average size of losses to adversely affected households is expected to be small – well below 1 percent of household per capita income – the analysis indicates that some of the poorest rural families may experience economically significant impacts (upwards of 3-4 percent of per capita income, and more than 10 percent of per capita income among the worst affected in rural areas), at least in the short run. In this context, some kind of safety net intervention and/or trade adjustment assistance is warranted.

Questions about the impacts of the FTA and appropriate policy responses are nested in broader questions about the Colombian labor market, and particularly about the changing nature of unemployment. A key question involves the extent to which unemployment is predominantly structural or cyclical, and which policy or programmatic instruments ought to be in place to protect workers from income loss due to unemployment. Structural and cyclical unemployment require different policy responses: structural unemployment reflects mismatches between people's skills and the demand for labor in the economy, and warrants efforts to strengthen and perhaps re-orient people's job skills. On the other hand, cyclical unemployment typically warrants temporary income support – whether in the form of unemployment insurance or workfare – along with support in locating and/or making the transition to a new job. Policymakers recognize the need to strengthen protection against employment risks, but clarifying the most appropriate and effective instruments to address these risks in an evolving economic environment, which at the same time minimizing adverse labor market incentives, remains an important challenge. In addition to these challenges, the country remains at high risk for other economic, health, or natural disaster shocks. The 1998/99 experience showed the value of having in place a safety net that can emerge in times of crisis, and the development of such a program was a key recommendation of the Bank's Social Protection Policy Note for the new Uribe Government, as well as a topic of much discussion early in the Administration. Although the issue is no longer a priority due to the country's strong economic growth, negative shocks will occur again, so it is necessary to build SPS components into the SPS to help people weather the next crisis.

Addressing financing challenges

Data suggest that overall social protection spending in Colombia – with the exception of spending in public health – is not high by Latin American standards, and that spending on social assistance is low compared to other countries in the region. Nonetheless, in Colombia's fiscally constrained environment, the new Administration will face an important fourth set of challenges: how to finance an expanded Social Protection System. Several specific issues stand out:

- First, a number of existing social protection benefits are financed through payroll taxes, including health insurance, occupational hazard insurance, pensions, and a variety of other social protection-related services, such as training (through

SENA), child and family welfare (through ICBF), and recreation activities (through CCF). A recent World Bank study on the Colombian labor market found that payroll taxes, at 35-36 percent, are already high by regional standards[235].

- Second, many existing taxes, such as the CCFs, ICBF, and SENA, are earmarked to institutions, but not to particular social protection programs[236]. But questions remain as to whether this results in the right mix of programs and social protection benefits. Indeed, evidence from other countries suggests that employees do not always value (or expect to benefit from) the complete bundle of benefits mandated as part of their country's social security system. This, in turn, raises questions about the efficient utilization of the current envelope of resources collected under the umbrella of social protection.

- Third, concerns remain regarding the fiscal sustainability of Colombia's pension programs. In an effort to contain runaway spending of the old, albeit reformed, RPM PAYGO system, Colombia's Congress passed three reform laws between 2003 and 2005[237]. In 2005, pension spending was expected to reach roughly 6 percent of GDP and about 39 percent of current government revenues. The reforms have been a step forward in reducing long-term pension obligations through the elimination of special regimes and the 14th payment for high-salary workers; increasing the number of contribution weeks to qualify for pension benefits; establishing a ceiling on the size of pension payments; etc. (Most of these start in 2010/11). Nonetheless, the operational deficit of the RPM system and other public pension regimes is expected to remain at 4-5 percent of GDP over the next 20 years[238].

This discussion refers only to the financing of social protection programs currently available to formal sector workers under a labor contract. A separate but equally important challenge lies in finding the fiscal space to expand the coverage of social assistance programs to protect against both short-term shocks and long-term poverty and vulnerability.

---

[235] Breaking this down: the 1993 social security reform set health contributions at 12 percent of earnings, and pension contributions at 13.5 percent (14.5 percent for high earners), although the 2002 pension reform increased contributions by a further by 2 percent. Mandatory contributions to the CCFs constitute another 9 percent. Total non-wage costs of employment, including *cesantias* (individual accounts funded by the employer in the amount of one month's wage per year, which act as a kind of unemployment insurance), paid vacations, mandatory bonuses, and severance contributions, are even higher, equaling roughly 60 percent in 2004 (World Bank 2005b).

[236] CCFs receive 4 percent of payroll tax to spend on services for (formal sector) employees and their families, who pay into their selected CCF (there are 52 in the country). Services range from conditional cash transfer programs to recreational facilities to subsidized grocery stores. SENA receives 3 percent of payroll tax to fund training programs, research and development, apprenticeships, and microenterprise development, among other services, which are open to all Colombians, whether or not they pay into the system. ICBF receives a budget of 2 percent of payroll tax to fund social assistance for vulnerable segments of the population – children, elderly, youth, among others – who may or may not pay into the fund.

[237] These were Law 797 of 2002, Law 860 of 2003, and a Constitutional reform, *Acto Legislativo 01*, of July 2005.

[238] Acosta (2005), cited in Casteñeda (2005).

Policy recommendations

The four sets of challenges described above help to frame a forward-looking policy agenda for strengthening Colombia's Social Protection System. The priority actions needed to address each of these challenges are outlined below.

Strengthening the system's coherence and efficiency

Strengthening the coherence and efficiency of the Social Protection System will be important to both its effectiveness and financial sustainability. In this regard, it will be important to:

Further develop and refine the *vision* and *strategy* for the Social Protection System, clarifying:

- the role and extent of private coping mechanisms, at both the individual and the market level;
- the need for a universal or a targeted approach to risk management, which may differ by sector or program;
- the need for a unified or a heterogeneous system, building on what works in the current system and given political economy considerations;
- an integrated vision for providing social assistance, particularly for supporting vulnerable groups (e.g., displaced persons) and the scope for expanding operations into urban as well as rural areas.

Clarify the *institutionality* of the Social Protection System, including relationships among institutions, responsibilities for policymaking and program implementation, and coordination of programs:

- under the purview of the Ministry of Social Protection, and
- other institutions that are part of the SPS, particularly Social Action, with its programs for displaced populations and *Familias en Acción.*

Develop the tools for results-based management and a more systematic approach to *monitoring and evaluation* within the social protection sector, to enable identification of effective programs and service delivery models, facilitate reform of ineffective programs, and improve social oversight and transparency of the programs.

Efforts to clarify the vision, strategy, and institutionality of the social protection sector, and to identify effective service deliver models, will be particularly important in the short term in the context of developing and piloting the *Colombia Solidaria* model.

Increasing coverage

Given people's exposure to different types of risk – health risks, occupational risks, the risk of indigence in old age, the risk of long-term poverty due to lack of human capital – and the limited coverage of existing programs, coverage needs to be expanded to individuals and families who lack adequate social protection. This will require not only a clearer definition of when targeted versus universal programs are warranted, but also mechanisms to ensure that increasing coverage does not create incentives for de-formalization of the labor market. In this context, it will be important to:

- improve information on who is covered, and by which program(s), via full implementation of Colombia's Unified Beneficiary Database *(Registro Único de Afiliados* - RUAF);
- ensure, as part of the design of expanded social insurance programs, that:
- mechanisms exist to facilitate job mobility across sectors and across social protection regimes and programs;
- benefit structures across programs do not encourage wholesale movement out of the formal sector into the informal sector; and
- undertake studies to understand the reasons that individuals do not participate in the existing social protection programs, and identify mechanisms to facilitate their participation.

It will be important to ensure that programs are well-targeted to the poorest families, displaced persons, and others who lack access to private risk management mechanisms; and that mechanisms are in place to identify those who may have been missed by the standard targeting mechanisms.

Responding to a changing economic environment

Looking forward, the effectiveness of Colombia's social protection system will depend not only on expanded coverage and effective risk management instruments, but also on anticipating future needs in the context of a dynamic national and international economy. In this regard, it will be important for the new Administration to deepen existing analysis and understanding of:

- the likely poverty and social impacts of the Free Trade Agreement;
- the extent to which unemployment is predominantly structural or cyclical; and
- the types of safety net, insurance, and assistance mechanisms necessary to help people cope with the negative effects of a crisis.

Keeping in mind the lessons from the 1998/99 crisis and the subsequent development of a range of risk management instruments, it would also be useful for the incoming Administration to consider how to put in place the capacity for effective counter-cyclical

financing of safety nets and to identify programs that could be scaled up quickly – in the event of an aggregate shock or economic crisis.

Addressing financing challenges

The Administration's ability to implement a coherent and effective Social Protection System over the long term will depend on its ability to develop sustainable financing mechanisms. The more ambitious the social protection policy agenda, the higher the fiscal costs are likely to be; therefore, any vision and strategy exercise should include a costing exercise. Since payroll taxes are already high by international standards, and thus likely create disincentives to formal sector employment, it will be important *not* to increase payroll taxes as a means of strengthening and expanding the system. Instead, the first priority should be to identify avenues for *more efficient spending* of current resources. Some promising avenues include:

- improved information systems, such as the RUAF;
- improved targeting of social assistance programs, through the SISBEN[239];
- assess the costs and benefits of the programs funded through taxes earmarked to specific social institutions, including an assessment of worker demand for the existing package of social protection programs;
- use of the new Electronic System for Integrated Payment (SPUE - Sistema de Pago Unico Electrónico) to achieve more efficient and effective collection of existing labor taxes.

Once progress has been made in increasing the efficiency of social protection spending, analysis and policy dialogue should be undertaken to identify potential additional sources for financing the Social Protection System, as well as mechanisms for counter-cyclical financing.

Short-term priorities – a proposed agenda for the first 100 days of the new Administration

The policy directions outlined above set forth an ambitious agenda for strengthening an equally ambitious – and important – national system of social risk management, which will serve to support and protect Colombians from the damaging effects of a range of risks. To be effective, it is recommended that the Administration prioritize and sequence the proposed actions as follows:

- Refine and clarify its *vision* and long-term *strategy* for the Social Protection System, as presented in an approved CONPES document[240];

[239] The SISBEN (*Sistema de Selección de Beneficiarios* - System of Beneficiary Selection) is a proxy means-tested ranking system to identify the poverty status of each family in the population. It was developed to improve the targeting of social programs. The first SISBEN was created in the mid-1990s, but it was not sufficiently updated, leading to a process in 2005 that refined the formula for determining a family's SISBEN score and application of the new formula. Since the new SISBEN was collected, there has been an on-going debate about whether it is an adequate proxy means test for identifying program beneficiaries. This debate will need to be resolved before the new system is fully applied.

- clarify the *institutionality* of the system, particularly in terms of relationships, roles, and coordination across institutions and programs approved by said CONPES;

- expedite implementation of the RUAF and SPUE information systems to improve efficiency of both coverage and revenue collection;

- undertake additional analysis in several areas where deeper understanding is important for moving the social protection agenda forward in the short term, specifically with respect to:

- the expected poverty and welfare impacts of the FTA, and the interventions that are most likely to support and protect those adversely affected by the Agreement;

- the nature of the unemployment risk (structural or cyclical), in order to prioritize the types of instruments needed to address this issue;

- the likely fiscal savings to be realized from better coordination within the SPS and consolidation of duplicative programs;

- the likely fiscal costs and financing options available for extending coverage of several key risks, including unemployment, health, and social assistance;

the results of pilot programs that were implemented during the 2002-2006 period, including the youth apprenticeship program; the expansion of learning modalities by SENA; the *Familias en Acción* pilots in urban areas and for displaced populations; and the unemployment subsidy pilot.

A brief comment on the political economy of reform

The central political economy challenges for strengthening the Social Protection System reflect the multi-sectoral, multi-institutional nature of the sector. To move forward in a productive, sustainable way, it will be important to develop a consensus on the vision and institutional parameters of the SPS between the Ministry of Social Protection, the Planning Ministry, and other key ministries (e.g., the Ministry of Education). Moreover, because much of the social assistance agenda is implemented outside of the Ministry of Social Protection in autonomous or semi-autonomous agencies, it will be important to develop a consensus for further development and reform of the Social Protection System with key players in those agencies as well. And, finally, further progress on pensions, from a social protection perspective (i.e., ensuring broader old age security for the poor), will require effective dialogue between the Ministry of Social Protection and the Ministry of Finance on, among other things, the issue of financial sustainability.

[240] This action would necessarily build on the concepts defined in the CONPES 3144 and 3187, which first proposed this system.

References

Acosta, Olga Lucia (2005) "Incidencia Económica de la Deuda Pensional" presented at the *Encuentro Hacienda Pública y Derecho Tributario*, Bogotá, Colombia.

Casteñeda, Tarsicio. 2005. Social protection in Colombia: recent advances and issues for the future. *draft.* World Bank, LCSHS, Washington, D.C.

Núñez Méndez, Jairo and Laura Cuesta. 2006. Diseño del sistema de protección social. Misión Para El Diseño De Una Estrategia Para La Reducción De La Pobreza Y La Desigualdad, *draft*. Bogotá, Colombia.

Presidencia, Planeta, Departamento Nacional de Planeación. 2005. *Visión Colombia II Centenario: 2019, Propuesta para Discusión*, 2a edición. Bogotá, Colombia.

World Bank. 2003. *Colombia: The Economic Foundation of Peace*. Marcelo M. Giugale, Olivier Lafourcade, and Connie Luff (eds). Washington, D.C.

World Bank. 2005a. *Colombia Country Economic Memorandum: The Foundations for Competitiveness.* Report No. 32035-CO. Poverty Reduction and Economic Management Sector Unit, Colombia and Mexico Country Department, Latin America and the Caribbean Region, Washington, D.C.

World Bank. 2005b. *Colombia Labor Market Adjustment, Reform and Productivity: What Are the Factors that Matter?* Report No. 32068-CO, *Issues and Policy Brief* (volume 1 of 2 volumes). Colombia and Mexico Country Management Unit, Poverty Reduction and Economic Management Sector Unit, Latin America and the Caribbean Region.