PANAMA: LOCKING IN SUCCESS

A SYSTEMATIC COUNTRY DIAGNOSTIC

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The team is co-led by Friederike (Fritzi) Koehler-Geib (Sr. Economist) and Kinnon Scott (Sr. Economist). Ayat Soliman (Program Leader) provided overall coordination. In addition, the following people provided substantive inputs and guidance: Humberto Lopez (Country Director), Frank Sader (Principal Strategy Officer), Louise J. Cord (Practice Manager), Auguste Tano Kouame (Practice Manager), Maryanne Sharp (Country Operations Adviser), Oscar Calvo-Gonzalez (Program Leader), and Kathy A. Lindert (Program Leader). Peer reviewers are: Pablo Fajnzylber, Practice Manager; David Gould, Lead Economist; and Jennifer J. Sara, Director.

The table below identifies the full list of team members that have contributed their time, effort and expertise, and their affiliations.

CMU/Global Practice/Cross Cutting Solution Area/IFC	Team Member
Agriculture	Irina I. Klytchnikova, Norman Bentley Piccioni
Caribbean CMU	Francisco Galrao Carneiro
Central America CMU	Jovana Stojanovic, Kathy A. Lindert, Mary Rose Parrish, Maria del Camino Hurtado, Oscar Calvo-Gonzalez, Anabela Abreu, Sara Paredes Ponce, Meilyn Gem, Michelle Mccue, Sonia Molina, Desiree Gonzales
Climate Change	Luiz T. A. Maurer
Education	Rita Almeida
Energy and Extractives	Fernando Javier Anaya Amenabar, Javier Aguilar, Mark Lambrides, Susana Moreira
Environment and Natural Resources	Carter J. Brandon, Karen I. Martinez Ona, Klas Sander
Finance and Markets	Ana Fiorella Carvajal, Rekha Reddy
Global Partnerships	Ashruf Mohammad Megahed
Governance	Diego R. Dorado Hernandez, Francisco Lazzaro, Svetlana I. Proskurovska
Health, Nutrition and Population	Carmen Carpio, Christine Lao Pena
IFC	Angela M. Fonseca Arango, Eduardo Wallentin, Gabriel B. Goldschmidt, Irene Arias, Luv Jhangimal Khemchand, Sofia Stefanelli
LAC Chief Economist Office	Jaime R. de Pinies Bianchi
Macroeconomics and Fiscal Management	Jennifer Keller, Diana M. Lachy Castillo, Miguel Angel Saldarriaga Noel, Rong Qian, Silvia Gulino, Susana M. Sanchez, Jennifer Keller
Poverty	Mateo Salazar Rodriguez, Liliana Sousa, Bernarda Erazo
Social Protection and Labor	Edmundo Murrugarra, Emma M. Monsalve Montiel, Pablo Ariel Acosta
Trade and Competitiveness	Alejandro Espinosa-Wang, Jose Eduardo Gutierrez Ossio,
Transport and ICT	Lincoln Flor, Shomik Mehndiratta, Doyle Galegos
Treasury	Concepcion Aisa Otin, Hector Ibarra Pando
Urban, Rural and Social Development	Armando Guzman Escobar, Agustin Maria, Carmen Bernardo Garcia, Catalina Marulanda, Dianna M. Pizarro, Kimberly Vilar, Yoonhee Kim, Luis-Felipe Dulchicela, Ramon Anria

ABBREVIATIONS AND ACRONYMS

ACP	Panama Canal Authority
ANAM	National Environmental Authority
ASEP	National Authority of Public Services (*Autoridad Nacional de Servicios Públicos*)
CBI	Panamanian Centro Bancario Internacional
CEDLAS	Center for Distributive and Social Studies
CGE	Computable General Equilibrium
CND	National Dispatch Center
DISAPAS	Directorate of Water and Sanitation of the Ministry of Health
DICRE	Dirección de Inversiones, Concesiones y Riesgos del Estado.
DIPORP	National Integrated Development Plan of the Indigenous Peoples of Panama
ECLAC	Economic Commission for LAC
EML	*Encuesta de Mercado Laboral*
ENASSER	*Encuesta Nacional de Salud Sexual y Reproductiva*
ETESA	National Electricity Transmission Company
FARC	Revolutionary Armed Forces of Colombia
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GMM	General Method of Moments
IBC	International Banking Center
IDB	Inter-American Development Bank
IDAAN	National Water Supply and Sanitation Administration
IFC	International Finance Corporation
ILO	International Labor Organization
IMF	International Monetary Fund
INEC	National Institute of Statistics and Census
IPCC	International Panel on Climate Change
IRHE	Institute of Water and Electrification
LAC	Latin America and the Caribbean
LAPOP	Latin American Public Opinion Project
LSCI	Liner Shipping Connectivity Index
MAPAS	Monitoring Country Progress in Water Supply and Sanitation
MDG	Millennium Development Goal
MEF	Ministry of Economy and Finance
MICI	Ministry of Commerce and Energy
MINSA	Ministry of Health
OECD	Organization for Economic Co-operation and Development
PAHO	Pan American Health Organization
PCW	Panama Canal Watershed
PISA	Program for International Student Assessment
SCD	Systematic Country Diagnostic
SEDLAC	Socio-Economic Data Base data base for Latin America and the Caribbean
SEM	*Sedes de empresas multinacionales*

SIEPAC	*Sistema de Interconexión Eléctrica de los Países de América Central*
SSEIR	Social Sector Expenditure and Institutional Review
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNHR	United Nations Human Rights
UNODC	United Nations Office on Drugs and Crime
U.S.	United States
USG	United States Government
WDI	World Development Indicators
WBES	World Bank Enterprise Surveys
WEO	World Economic Outlook
WSS	Water and Sanitation Services

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2. **Panama's progress in reducing poverty and increasing shared prosperity compares positively with the Latin American region.** Poverty reduction in the country was greater than the Latin American and Caribbean average. Only Bolivia saw greater improvement in shared prosperity, as measured by the growth of the income of the bottom forty percent of the population, than Panama. The rise in the middle class, seen in many countries in the region, was particularly marked in Panama and there has been an overall decline in inequality.

3. **This report takes stock of this progress, and reflects on the constraints and opportunities that Panama faces in continuing on its path of shared prosperity and poverty reduction.** Following a detailed analysis of poverty – recent trends, drivers of poverty reduction, and demographic factors – the report provides elements to answer three main questions. First, what has driven growth in Panama in recent years? Second, to what extent has this growth been, or not been, inclusive? And, finally, how sustainable is the growth and more generally, the development model of Panama?

4. **In doing so, the report identifies a select list of policy priorities for poverty reduction and shared prosperity in Panama.** The analysis of the development challenges in any country, including Panama, will likely find that there is space for improvement on most areas underlying development. And yet, a long list of recommendations is likely to be of limited use. Policy makers face budgetary and political economy constraints that limit their scope for action. Thus, an effort that prioritizes among competing policy interventions will add significant value to any diagnostic of country development challenges. Exploiting a diverse set of analytic tools, a benchmarking exercise and country knowledge, this report also contributes to Panama's policy debate by identifying a select list of priorities and opportunities.

THE NATURE OF GROWTH IN PANAMA

5. **Over the past decade, Panama has been one of the fastest growing economies worldwide**. Average annual growth was 7.2 percent between 2001 and 2013 and Panama was an outlier in terms of post-crisis recovery, having had higher growth after the crisis than before. Even though the growth rate is expected to moderate to between 6 and 7 percent in 2014, this is one of the highest rates for that year. In addition, not only has growth been high, but it has been accompanied by progressive distributional change.

6. **Panama's exceptional growth performance over the past decade stems from a number of factors.** The transfer of the Canal to Panama in 2000 allowed it not only to benefit from the

growth of world trade, but also to leverage its geographical position to transform itself into a well-connected logistics and trade hub and a financial center. Complementing this strength, Panama has undertaken important public investment projects, such as the expansion of the Canal or the construction of the Metro in Panama City. In the process, it has managed to attract increasing foreign direct investment (FDI) flows and private investment. As a result of these factors, and the underlying stable macroeconomic environment, Panama's real growth since 2001 has been more than double the average for Latin America and the Caribbean (LAC). The country has been one of the few that have been able to catch up with the U.S. in terms of per capita Gross Domestic Product (GDP) in recent years and its growth rate displayed low volatility in international comparison. As a result, it has consolidated its position as the most competitive economy in Central America and second only to Chile in LAC.

7. **There are good reasons to expect that growth will continue to be strong in Panama (around 6 percent) in the near future.** The completion of major infrastructure projects (Canal expansion and the first Metro line) will lower public investment in the coming years; yet, this will be offset by the planned construction of the second Metro line, and the additional traffic generated by the expanded Canal. In addition, there is no indication of a downturn in private investment according to residential and non-residential construction leading indicators (such as construction permits). The continued stable macroeconomic environment and recent moves by the Government to ensure that the banking sector meets international standards will also continue to make Panama an attractive country for FDI. The prospects of sustained high growth in the coming years are also supported by emerging opportunities in key sectors such as transport and logistics, mining, financial services, and tourism.

8. **Nonetheless, certain structural areas require attention to ensure that Panama meets these high growth expectations: infrastructure, particularly energy, education and skills, and public sector institutions.** For example, the energy sector has not been able to keep pace with the growing demand of a high performing economy, and this issue will likely become even more binding as the economy continues to grow at healthy levels. Likewise, while the country has made large gains in education in recent years, the transformation and modernization of the economy has exposed weaknesses in both the coverage and quality of secondary and tertiary education. Finally, there is an obvious mismatch between the increasing sophistication of Panama's economy and the effectiveness of its public institutions. Challenges are most marked in transparency, efficiency and the adequacy of the regulatory framework.

INCLUSION AND ECONOMIC GROWTH

9. **Panama's growth has been inclusive along many dimensions.** Over the past years, growth has been accompanied by declines in income inequality, and vulnerable groups in society (poor, women, unskilled) have significantly benefited from growth. For example, the average income growth of the bottom 40 percent (8.2 percent per year between 2007 and 2012) was significantly higher than income growth for the average Panamanian (6.6 percent per year). Similarly, the percentage of female-headed households that escaped poverty between 2007 and 2012 (14 percent) was higher than the percentage of male households escaping poverty (12.3 percent) and today, the difference in the poverty rates between female and male headed households is less than 1 percent (2.6 percent in 2007). The economy has also managed to generate a large

number of jobs for the unskilled: an increase of almost 12 percent. The positive effects of economic growth on poverty came through a combination of increased labor income and a strong program of public transfers. Labor income was the key driver of both poverty and extreme poverty reduction in urban areas, but government transfers were the main force behind poverty and extreme poverty reduction in rural areas.

10. **Yet, the degree of inclusion has varied across the country and across population groups.** Despite the strong pro-poor growth, sharp regional disparities remain. Take the case of Ngäbe Buglé *comarca*, Panama's poorest area, where 93 percent of the population is poor, compared to 26 percent for the country as a whole, and only 15 percent in the richest province. The rate of change of poverty also varied. While urban extreme poverty fell 40 percent between 2007 and 2012, in rural areas the decline was 15 percent, and in the indigenous territories, *comarcas,* only 4 percent. This has resulted in an increasing concentration of the extremely poor in the indigenous territories. Finally, among the poor and extremely poor in Panama, the groups with the least human capital, lowest incomes and greatest dependence on social assistance are the indigenous population living in the *comarcas*.

11. **Benchmarking across indigenous groups in the region shows Panama to be lagging in economic and social development.** In absolute and relative terms, Panama's indigenous populations fare poorly compared to other Indigenous Peoples in Latin America. The differences in terms of access to services are striking. Among 12 Latin American countries, Panama has both the lowest level of electricity coverage among the indigenous population and the largest gap between indigenous and non-indigenous populations (52 percentage points compared to the next largest gap of 38 percentage points in Colombia). The gap in sanitation is also the largest and only Nicaragua has lower absolute levels. The situation is similar for piped water and internet access.

12. **While reducing poverty in Panama will require attention to all deprived groups, the concentration of the poor in *comarcas* suggests that this would be a priority area**. The Indigenous Peoples of Panama have significant social capital, and their lands represent significant wealth and bio-diversity. At the same time they suffer from multiple deprivations: extremely low incomes, low access to basic services and infrastructure, lower human capital, poorer health outcomes, fewer labor options and de facto land tenure insecurity. Investments in basic infrastructure in roads, electrification and sewage systems would benefit both rural indigenous and non-indigenous groups. However, improving social service for the indigenous will require special attention to accommodate their cultural norms. In short, while Panama's agenda on eradicating extreme poverty is much broader than just the *comarcas*, the levels and severity of poverty in these areas and the slowness of positive change suggest that focusing on the *comarcas* is a priority.

13. **At the same time, it is important to understand the complexities of addressing the development challenges of the *comarcas* and the need to pay attention to issues of (i) culturally appropriate economic opportunities, (ii) social assistance, and (iii) infrastructure provision**. The lack of culturally appropriate models for development for the *comarcas* has reduced the positive impact of government programs and policies. Differences in community organization and communal property, among others, need to be taken into account. Furthermore, a good understanding of the tradeoffs that Indigenous Peoples are, and are not, willing to make among different goals will be key to finding sustainable solutions. In this regard, the National

Integrated Development Plan of the Indigenous Peoples of Panama, completed by the National Indigenous working group after a two-year effort, provides an opportunity to tackle poverty in the *comarcas*. The Plan presents the consensual vision of the goals and priorities of the 12 indigenous congresses on economic development, social development, and legal rights.

14. **The challenges faced by the social protection system in the *comarcas* also merit further attention given that outcomes are muted despite good spending levels.** Indeed, the benefits of *Red de Oportunidades*, the conditional cash transfer program for the most vulnerable, in the *comarcas*, appear to have been limited by a lack of differential ethnic services for the various ethnic groups. In this regard, the adaptation of service provision to the environment is critical, including, for example, offering multicultural bilingual education in indigenous areas, or ensuring that health workers are equipped to work in different cultural contexts.

15. **Lack of services, particularly access to water and sanitation, continues to be a constraint in the *comarcas*.** Low population density and dispersed populations are often blamed for lack of service provision in these areas. This is a challenge that needs to be acknowledged but the fact that Los Santos, one of the three provinces with the highest rate of poverty reduction in the past six years, has a population density below that of the poorest *comarca*, suggests that additional barriers to service provision are at play.

SUSTAINABILITY: ECONOMIC, SOCIAL AND ENVIRONMENTAL

16. **Can Panama sustain this progress and improve on it?** Whether Panama can sustain the progress observed in previous years depends on the extent to which attention is paid to critical economic, social and environmental issues.

17. **Panama's continued high reliance on foreign financing for its investment program will depend on continued progress on compliance with international finance standards**. The Panamanian Government is working on reforms to address these concerns but is still under a peer review process. This phase of this review involves an assessment of legal and regulatory frameworks; the second phase consists of an assessment of how well the country is doing on tax transparency in line with international standards. Based on the outcome of the first phase, Panama is currently undertaking reform measures to allow it to move on to phase two of the process.

18. **Sustainability will also depend on Panama successfully assessing and mitigating the various sources of competition to the Panama Canal, given its crucial role for the country's economy.** To the east, the recent project by Egypt to widen the Suez Canal in parts of its length will enlarge transit capacity and decrease waiting time from 18 to 11 hours for most ships. Closer to home, Panama's northern neighbor Nicaragua has recently announced the initiation of a project to build a Nicaragua Canal passing through Lake Managua. Once completed, this canal could have significant impact on the share of trade going to Panama. Finally, in the medium to long term, the Northern Passage may open up as global warming melts the Arctic ice cap, substantially reducing the distance between Asia, Europe and North America. Competition to the Canal requires constant adjustment of its pricing policy to maintain market edge and competitiveness within the global market.

19. **On the social front, the country's cohesion is threatened by existing inequalities, the crime and violence linked to Panama's strategic position as a drug corridor, and weak protection of land rights.** The stark economic inequalities and relative deprivations, coupled with more precarious forms of urban employment and perceptions, along with evidence of corruption have been creating strains on society. Relative deprivation has led some groups to further organize and assert political voice (such as through the *Mesa Indigena*) but also to increases in violence in urban areas when combined with the illegal drug trade. However, the risks from crime and violence affect not only urban youth but also rural and indigenous populations. Struggles around infringements of indigenous land rights also pose serious threats to social sustainability. This is particularly the case when one considers mining, which has the potential to be a key source of growth in the coming years, but that will need to overcome potential opposition from the indigenous populations living in the areas where the mining deposits are.

20. **While the risks to social cohesion exist, various factors may play a mitigating role.** The recent success the Government has had in reining in homicide rates suggests that Panama may be able to avoid the escalation of crime and violence seen in neighboring countries. The youth gang movement is nascent and appears amenable to intervention. Ratification of the International Labor Organization Convention 169 could help promote land and other rights as ratification would trigger international supervision of the implementation of the Convention, thus providing more visibility to land rights issues. The planned creation of a Ministry of Indigenous Affairs to help promote economic and social welfare of the Indigenous Peoples in the country and support the National Integrated Development Plan of the Indigenous Peoples of Panama provides further opportunities for improvements in the protection of land and resources rights of the Indigenous Peoples in Panama.

21. **Environmental sustainability depends on safeguarding Panama's water and natural resources and on putting in place adequate regulation to mitigate the effects of large infrastructure and extractive projects, rapid urbanization and risk from to natural disasters.** Safeguarding Panama's water and natural resource base is critical to the current growth model linked to the Canal and other economic activities. In terms of long term climate change, the recent International Panel on Climate Change (IPCC) Fifth Assessment (2014) cites a trend of increasing precipitation over most of Panama. This is generally good news for the Canal. However, greater variability, with more frequent floods and droughts, is also predicted and poses a real risk. The country's infrastructure-based growth model requires strong environmental regulation and enforcement to avoid long term irreversible negative impacts. In particular, the growth of the mining sector raises significant potential environmental risks due to the lack of an adequate regulatory framework that regulates safe and sustainable mining permits. The challenge of improving the urban environment is amplified by the ongoing process of decentralization that has not been coupled with adequate municipal capacity building. Finally, the increasing risks of natural disasters require an integrated mitigation strategy**.**

22. **Water resources management under varying climate conditions emerges as a priority area linked to sustainability.** Benchmarking across time highlights the greater incidence of extreme weather events in the last decades. Climate models predict this to be the new norm. The effects of the economy are multiple, including, most critically, the effect on the Canal operations as greater variability in rainfall and extreme weather can lead to temporary closures (this has

happened four times to date). Changes in rainfall in other areas of the country can affect hydro-electrical power generation, a key energy source for the country. And, of course, extreme weather can affect agriculture, the main source of income for many of the poor in the country.

PRIORITY AREAS AND COMPLEMENTARITIES

23. **Valuable synergies emerge from looking at priorities and opportunities across the themes of growth, inclusion and sustainability.** The analysis has been framed to answer three key questions: what is the nature of growth, how inclusive is it and how sustainable. The analysis identified five priority areas: Infrastructure with a focus on energy, education and skills, public sector institutions, Indigenous Peoples and water resources management. But beyond the relevance of each of these areas for growth, inclusion and sustainability it is important to also highlight the complementarities that exist across them. Some simple examples illustrate this point. Education and skills have been identified as a priority for economic growth: a well-educated workforce with relevant skills is fundamental to sustain economic growth. In parallel, closing the education gap between the poor and non-poor is also highly relevant for inclusion by providing opportunities to rural and indigenous Panamanians. Institutional capacity clearly affects growth, inclusion and sustainability.

24. **In terms of opportunities within these areas, those identified to improve public institutions provide a clear example of the synergies.** Performance-based budgeting or enhanced fiscal management along with other opportunities will free resources that could be spent on other areas, including education or Indigenous Peoples. Moreover, enforcing consistent social and environmental safeguards regulations and standards across sectors will have an important positive impact on water resources management.

KNOWLEDGE GAPS

25. **In the process of reviewing, analyzing and synthesizing the existing data and research on Panama, a series of knowledge gaps were discovered**. By discovering and describing these gaps, this report outlines a roadmap for further research on Panama that will benefit the design of specific policies in the priority areas identified in this report and generate information that can lead to the identification of new priority areas. Knowledge gaps are in some cases, data related (poverty by all ethnic groups, for example). In other cases there is a need for more analytical work (qualitative and quantitative work on the causes of drop-out rates in Panama, or the creation of simulation tools on growth or climate, for example). Focus on filling these knowledge gaps will ensure the best possible analytic base for future work on prioritization in the country.

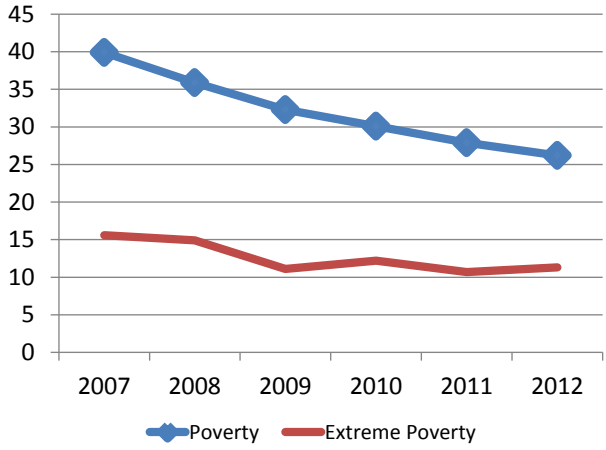
Diagnostic Area	Priority Area	Opportunities	Complementarities
GROWTH	Energy	Managing (reducing) national energy demand	- *Contributing to a more efficient public sector* - *Reducing demands on water resources* - *Freeing up resources for priority social programs, such as education and indigenous*
		Increasing power generation via renewables/clean energy	
		Increasing domestic and cross border transmission	
		Modernizing the institutional framework in energy	
		Improving rural energy services	
	Education	Strengthen targeted public/private technical education to meet labor market demands	- *Reducing drop-out rates and proving opportunities for indigenous, inter alia* - *Contributing to growth, potentially increasing demand for energy and water* - *Contributing to a more efficient public sector*
		Strengthen M&E of education to improve quality	
		Differentiate social assistance benefits to lower the drop out from secondary education	
	Public Sector Institutions	Meet Global Forum standards on tax/ financial information sharing (OECD grey list)	- *Freeing up resources for priority social programs, such as education and indigenous* - *Creating conditions for sound indigenous people development framework and engagement* - *Supporting sustainable energy and water management*
		Improve public procurement practices	
		Introduce performance informed budgeting (PIB) along with better coordination	
		Develop effective subnational institutions needed for decentralization	
		Improve fiscal management, incl. modernizing financial planning, debt management and fiscal risk from disasters	
		Modernize mining regulatory framework to promote oversight, benefit sharing and environmental/ social sustainability	
		Strengthening financial sector regulation	
		Enforce consistent social and environmental safeguards regulation and standards	
INCLUSION	Indigenous Peoples	Increase the quality, access and cultural pertinence of health and education services in indigenous communities	- *Reducing drop-out rates* - *Ensuring sustainable water and energy use* - *Strengthening institutional framework for inclusion*
		Support 'economic development with identity', ex. traditional agriculture; payments for environmental services; benefit sharing; sustainable tourism.	
		Strengthen and formalize Indigenous Peoples' participation in relevant Government decisions and processes	
SUSTAIN-ABILITY	Water	Implement integrated water resources management plans in selected priority basins outside Canal watershed	- *Creating economic opportunities for rural and indigenous* - *Contributing to a more efficient public sector* - *Ensuring supply for hydropower generation*
		Scaling up integrated disaster risk planning coupled with climate adaptation measures	
		Reduce pollution by improving sewerage treatment capacity and access to sanitation	
		Streamline regulatory and institutional functions across Water sector agencies	

II. Poverty and Shared Prosperity in Panama

26. **Panama has made significant progress on the poverty reduction front over the past years.**[1] Between 2007 and 2012, a period including the years of the Great Recession, Panama managed to reduce poverty (using the national poverty line) from 39.9 percent to 26.2 percent, and extreme poverty from 15.6 percent to 11.3 percent (Figure II.1:). Thus, of a population of about 3.6 million people, the number of Panamanians living below the national extreme poverty line declined by slightly more than 150,000 people and those living below the moderate poverty line declined by close to half a million people.

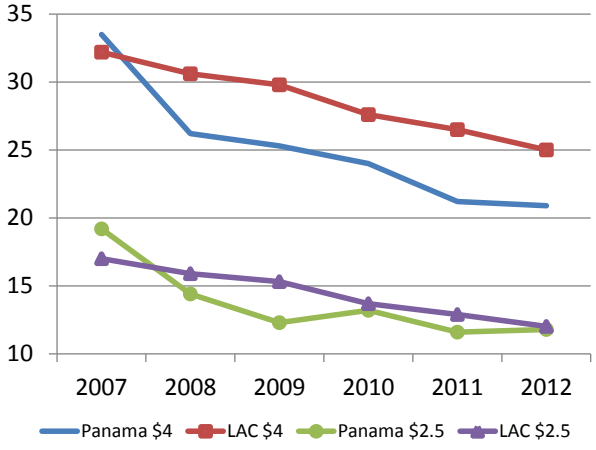
27. **Panama's progress in reducing poverty compares positively with the Latin American region.** Indeed, using a US$4 a day poverty line, moderate poverty declined from 33.5 percent of the population in 2007 to 20.9 percent in 2012. This compares with a poverty decline in the Latin American region from 32.2 percent to 25 percent over the same period. Likewise, extreme poverty (using a US$2.5 poverty line) declined from 19.2 percent to 11.8 percent, compared to a decline in the region from 17 percent to 12 percent (Figure II.2). Extreme poverty, as measured by the international US$1.25 poverty line (used by the World Bank to measure progress towards the twin goals) would be 4 percent, which is close to the World Bank's global extreme poverty target of 3 percent for 2030.

Figure II.1: Panama's Poverty Rates 2007 to 2012 (Percent, national poverty line)



Source: Instituto Nacional de Estadística y Censo (INEC)

Figure II.2: Poverty in LAC and Panama 2007 to 2012 (Percent, international poverty line)



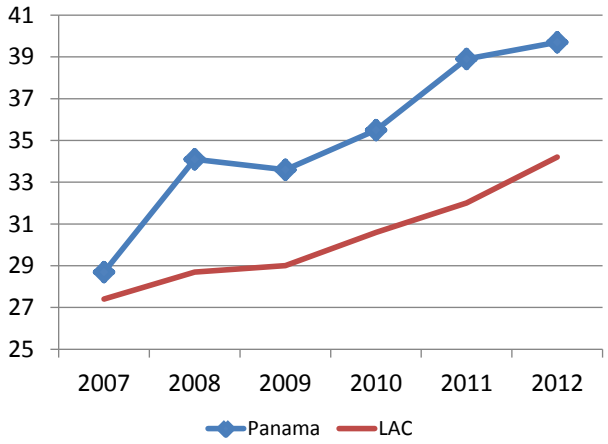
Source: World Bank

28. **The observed declines in poverty rates have been accompanied by a significant increase in the middle class.** When measured as the share of the population with incomes between US$10 and US$50 a day (as done in the LAC Regional Flagship, Economic Mobility and the Rise

[1] Unless otherwise stated, the analysis uses national definitions of poverty and shared prosperity (both poverty lines and the income aggregate). The analysis focuses on the 2007-2012 period for reasons of data comparability that limit the use of longer time trends. While every effort has been made to replicate the welfare measure used in Panama, there are some slight discrepancies (see Cadena et al, 2013) that are not expected to change the story in any way. The value of the national poverty line was US$7.9/day urban and US$5.8/day.

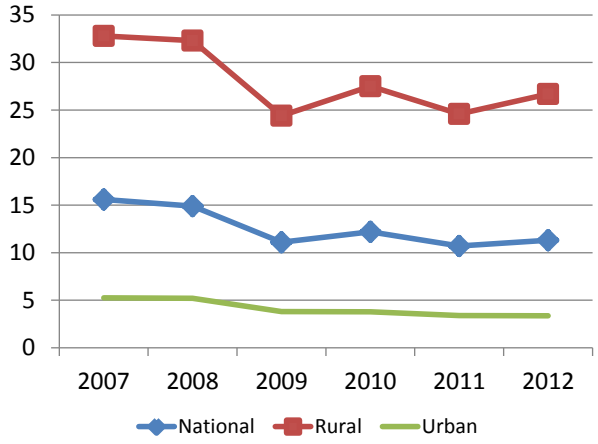
of the Middle Class), the Panamanian middle class increased by about 10 percentage points from 29.7 percent in 2007 to 39.7 in 2012. This is consistent with – though more marked than – the evolution of the middle class in the Latin American region, which also increased from 27.4 percent to 34.2 percent (Figure II.3).

Figure II.3: Middle Class in Panama and LAC 2007 to 2012 (Percent, international poverty line)



Source: World Bank.

Figure II.4: Urban and Rural Extreme Poverty in Panama 2007 to 2012 (Percent, national poverty line)



Source: World Bank.

29. **As a result, the middle class has been the largest group in Panama since 2011.** The typical transition from poverty to middle class is through the vulnerable class (i.e., a group of the population that while not poor, has a significant chance of falling into poverty in the coming years). In Panama, in 2007, the middle class was as large as the population living in poverty, but began increasing between 2007 and 2010 as poverty declined. Starting in 2011, the vulnerable class was smaller than the middle class.[2] This is unlike in Latin America as a whole where despite the evolution of the middle class, the vulnerable group continues to be the largest.

30. **Yet as in most Latin American countries, there are important differences between poverty levels in rural and in urban areas.** Despite the fact that 75 percent of Panamanians live in urban areas, and two thirds of those in Panama City, the urban-rural discrepancies are still important. For example, while in urban areas extreme poverty is below 4 percent, in rural areas extreme poverty is about 27 percent. Moreover, in contrast to urban areas where poverty has fallen every year since 2007, extreme poverty levels have fluctuated in rural areas and indeed increased in 2010 and 2012 (Figure II.4). But perhaps more worrisome, as discussed in Chapter V of this document, poverty rates vary dramatically across the country. In the Indigenous Peoples' territories (Figures V.7 and V.8), poverty is almost universal and persistent (declining at a rate below the national average). For example, the Ngäbe Buglé *comarca* has a poverty rate of 93 percent and an extreme poverty rate of 80 percent. These poverty rates surpass poverty among indigenous peoples in other countries including Bolivia, Guatemala, Peru and Ecuador.[3]

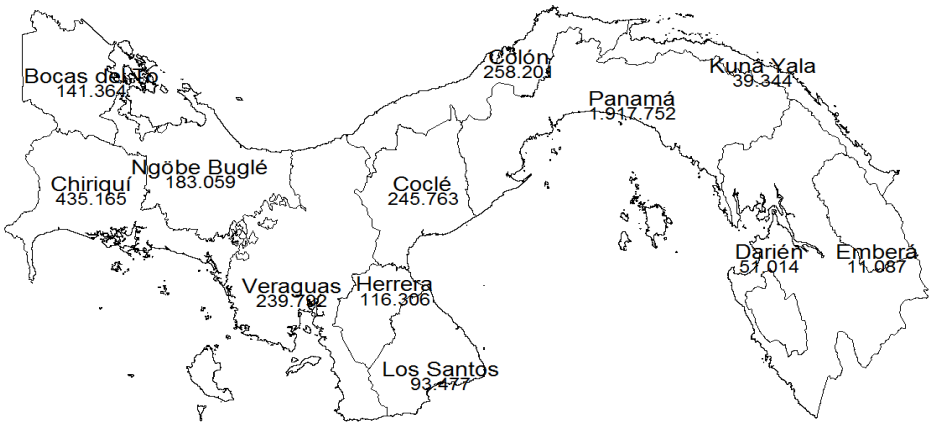
[2] Ferreira et al. (2013)

[3] Using an international poverty line of US$4 per person per day. SEDLAC (CEDLAS and World Bank) del Informe Los Pueblos Indígenas en América Latina, 2014.

Box II. 1: Indigenous Peoples Demographics and Data

Panama has a population of around four million people living in 10 provinces, 75 districts or municipalities, 5 collective and semi-autonomous Indigenous territories organized by ethnic groups, i.e., *comarcas* and 620 *corregimientos*. The tenth province was created when the original Province of Panama was divided into two—Panama and Panama Oueste—in January of 2014. Due to the recent split, the analysis here looks at the original Province of Panama.

Population by Province and *Comarca*



Source: INEC, 2010.

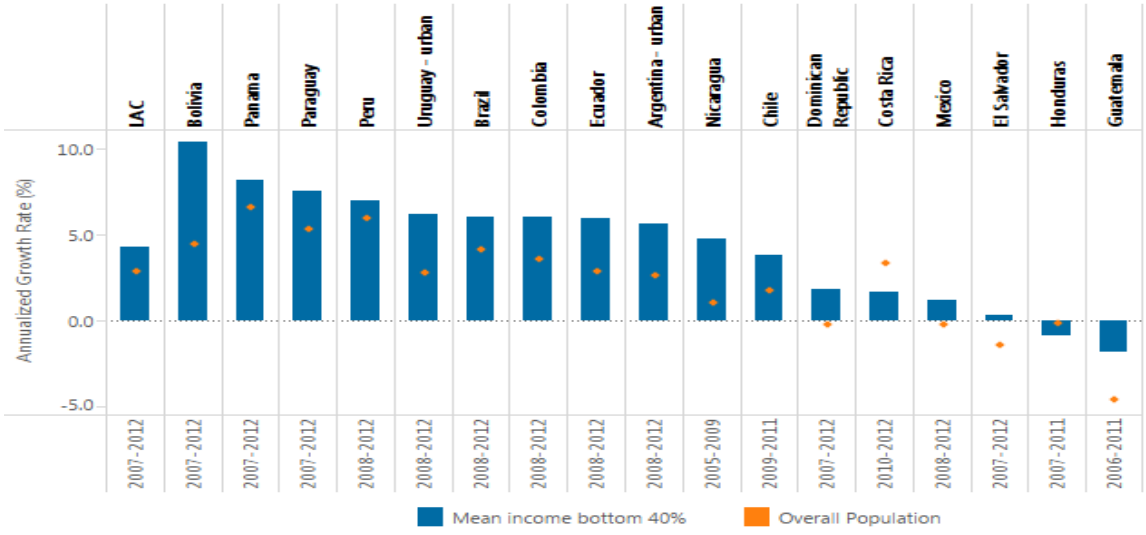
Panama is home to eight Indigenous ethnic groups or "peoples", namely the Ngäbe or Ngöbe (260,058), Kuna or Guna (80,526), Emberá (31,284), Buglé (24,912), Wounaan (7,279), Teribe/Naso (4,046), Bokota, (1,959), and Bribri (1,068). The 2010 census shows that 196,059 indigenous persons live in *comarcas*, while 221,500 live in other areas. The *comarcas* and other Indigenous territories enjoy significant autonomy and self-government through ten Congresses and two Councils. The *comarcas* make up 22.2 percent of the country's area, or 16,634 square kilometers and comprise some of Panama's richest natural resources and cultural diversity. Panama is also home to a population of Afro-descendants representing 9.2 percent of the national population in 2010. The majority live in Colon (29 percent), Darien (17 percent) and Panama City (11 percent).

Data on the full population of the Indigenous Peoples and Afro-descendants is limited. The annual household survey used to measure welfare does not include an ethnicity variable. In most of the analysis here, the geographic variable *comarca* is used as a proxy for persons of indigenous origin. This has three problems: (i) this captures only the three largest *comarcas*; (ii) there are small numbers of non-indigenous people who live in the *comarcas*; and (iii) using the *comarca* variable excludes the half of the indigenous population that lives in other parts of the country from the analysis. There is also no way to identify Afro-descendants from the household survey as they are included in the urban or rural areas in which they live. The only data source that allows a comparison to be made of these two groups is the National Population and Housing Census carried out every ten years: these data are used as much as possible. Thus, the discussion of welfare of these groups is constrained. These knowledge gaps merit further attention in Panama.

31. **Beyond the progress made on poverty reduction, Panama has also made significant progress on shared prosperity.** Average per capita income, as measured by household surveys, grew by 6.6 percent between 2007 and 2012 whereas the average incomes of the bottom 40 percent

of the population rose 8.2 percent (Figure II.5:).[4] These statistics indicate that not only has growth been pro-poor - having a clear bias towards the poor - but also that the increase in their incomes has been significant: at this rate, the incomes of the poor would double every nine years. It is also worth noting that in Latin America, only Bolivia saw greater income growth among the bottom 40 percent of the population.

Figure II.5: Shared Prosperity in LAC, 2007-2012 (Annualized Growth Rate of Income for the Poorest 40% and the Overall Population)



Source: Latin America and the Caribbean Equity Lab tabulations of the Socio-Economic Data Base data base for Latin America and the Caribbean (SEDLAC) produced by the Center for Distributive and Social Studies (CEDLAS and the World Bank; and World Development Indicators (WDI).

32. **However, not everyone in the bottom 40 percent has shared equally in Panama's prosperity, similar to the poverty reduction story.** The bottom 40 percent of the population has seen its income rise in all provinces (that existed before January 2014) and the three *comarcas* (Figure II.6:). Those among the bottom 40 percent of the national population who lived in Coclé, Veraguas and Los Santos saw the highest average income growth - which in the case of Coclé, was close to 10 percent. However, in the *comarcas* captured by the data, growth was much lower at only 2.4 percent. And only in the *comarcas* was the overall average income growth (5 percent) greater than that of the bottom 40 percent. Compared with national data, the per capita income growth in the *comarcas* was 1.6 percentage points lower than the national growth rate and the income of the bottom 40 percent was 3.7 times lower than the income of the bottom 40 percent at the national level. Indeed, as discussed later, even though the number of extremely poor has declined significantly in the country, the *comarcas* historically have been, and are now even more so, the places where extreme poverty is most prevalent in Panama.

[4] The process of data harmonization for cross-country comparisons means that the comparable results differ from those for Panama alone as the construction of measures for one country are quite different from what has to be done in a multi-country context.

Figure II.6: Shared Prosperity across the Country (Mean Income Growth, Percent)

Source: Authors' calculations based on Panama household survey (*Encuesta de Mercado Laboral*, EML), rounds 2007 and 2011.

33. **The extremely poor are highly concentrated in remote geographic areas where Indigenous Peoples live.** The indigenous populations living in the three largest *comarcas* represent 42 percent of the extremely poor, but at the same time, represent less than seven percent of the country's population (although Indigenous Peoples represent 12.2 percent of the total population). Many of the Indigenous Peoples in Panama live outside but in close proximity to the *comarcas* with collective title, as is the case of the Naso territory, two Wounaan communities in Darien, and the Dagargunyala collective territory. Many others are awaiting territorial recognition and titling, as is the case of the Bri-Bri and many communities in Darien. The communities without land tenure security are at the greatest risk due to land invasions by non-indigenous farmers, the Revolutionary Armed Forces of Colombia (in the case of Darien), and by parties interested in resource extraction.

34. **At the same time, lack of opportunities within these areas has forced many indigenous people to migrate to cities.** According to the 2010 census, only 40 percent of the Guna population now lives in the three Guna *comarcas*, 52.3 percent of Ngäbe and Buglé people live within their *comarca*, and in the case of the Emberá and Wounaan, only 24 percent of the population is living within the *comarca*[5]. Internal migration among the indigenous population in Panama is higher than in most other Latin American countries.[6]

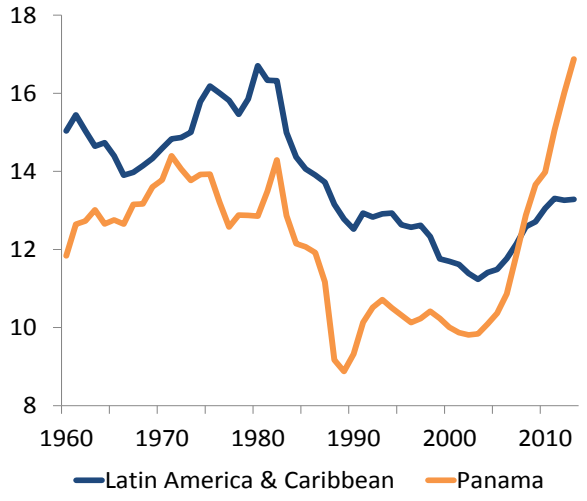
35. **Nonetheless, inequality has not been an issue exclusive to the Indigenous Peoples.** There is a universal perception in Panama that Afro-descendants have also been excluded from the country's economic growth and face difficult challenges, including lack of access to basic services, such as water, electricity, sanitation, education, employment, health services and political participation. While the limited data available do not completely support this perception,

[5] International Working Group, 2011.
[6] Economic Commission for Latin America and the Caribbean (ECLAC), 2014.

qualitative studies indicate that Afro-descendants rank among the poorest and most vulnerable groups in the country.[7]

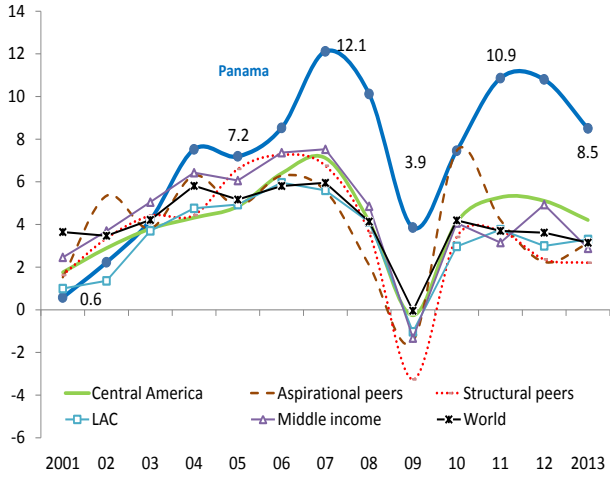
36. **This raises a question about the factors driving poverty reduction in Panama.** Over the past decade, Panama has been one of the fastest growing economies worldwide. With an average annual growth rate of 7.2 percent between 2001 and 2013, Panama has outpaced most of its peer countries and grown significantly faster than the average country in any of the analyzed peer groups.[8] The country has been one of the few that have been able to catch up with the U.S. in terms of per capita GDP in recent years (Figure II.7: and Panama has been an outlier in terms of post-crisis recovery (Figure II.8:); while most countries were not able to catch up to their pre-crisis dynamism, Panama had higher growth after the crisis than before. Even though the growth rate is expected to moderate to around 7 percent in 2014, this is one of the highest rates for that year. In addition, not only has growth been high, but it has also been accompanied by progressive distributional change.

Figure II.7: Panama's GDP Per Capita as a Share of US versus Latin America (Percent, constant 2005 US$)



Source: WDI

Figure II.8: Real GDP Growth in Panama and its Peer Countries 2001 to 2013 (Percent change)



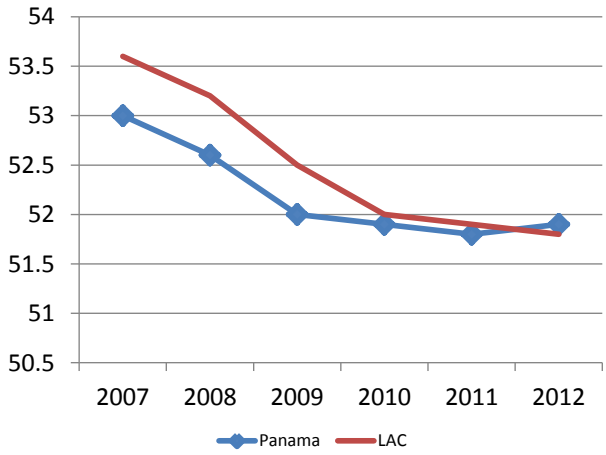
Source: World Economic Outlook (WEO).

37. **Growth accounted for about 80 percent of poverty reduction and the reduction in inequality accounted for the remaining 20 percent between 2007 and 2012.** The recent high GDP growth rates experienced by Panama would suggest that growth has played a predominant role in explaining poverty reduction. We test this hypothesis by performing a Datt-Ravallion decomposition[9], which attempts to identify the relative contributions of growth and changes in inequality for any given poverty change. The results of this decomposition are displayed in Figure II.10: confirming the hypothesis that growth accounted for about 80 percent of the poverty gains

[7] Generating quantitative data on Afro-descendants will be necessary to create an accurate picture of absolute and relative poverty levels of this ethnic group.
[8] Annex 2 contains the types of peer countries (regional, aspirational, structural) and the countries included in each peer group.
[9] See Datt and Ravallion, 1992.

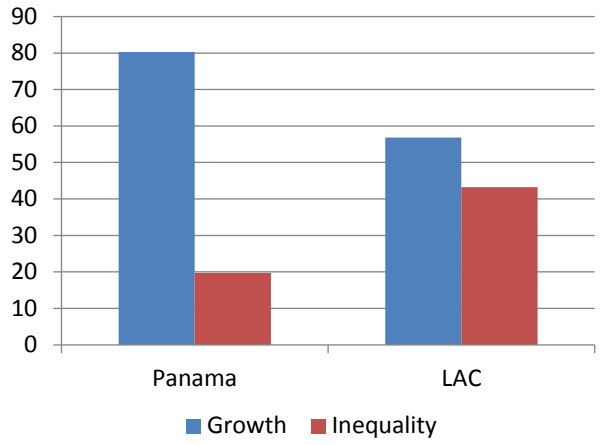
and inequality for about 20 percent. This is in contrast to the Latin American region, where growth has been admittedly lower and the gains on the inequality front more, where over the same period of time, growth would have accounted for 57 percent of poverty reduction and inequality for 43 percent.

Figure II.9: Gini coefficient in Panama and LAC 2007 to 2012 (Index)



Source: World Bank.

Figure II.10: Datt-Ravallion Decomposition of Poverty (Percent)

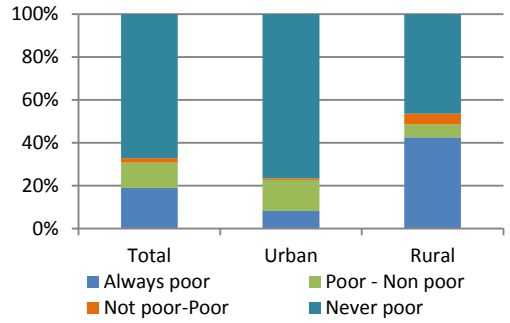


Source: Authors' calculations based on Panama household survey (Encuesta de Mercado Laboral), rounds 2007 and 2011.

38. **The positive changes in poverty measured by cross-sectional household data hide some of the movements of the population in and out of poverty**. A synthetic panel, constructed *a la* Dang et al (2011), shows that the 2007-2012 period saw people moving out of, but also into, poverty. The synthetic panel results in terms of poverty numbers do not completely align with the national figures, but the analysis does highlight several important movements of households (Figure II.11: and Figure II.12:).[10] First, households with low educational levels (primary or below) and those engaged in agriculture were the most likely to have been poor in 2007 and remained poor in 2012. Second, households in the agricultural sector and in the bottom income quintile were the least likely to move out of poverty and most likely to fall into poverty. Finally, urban areas overall showed the greatest movements out of poverty.

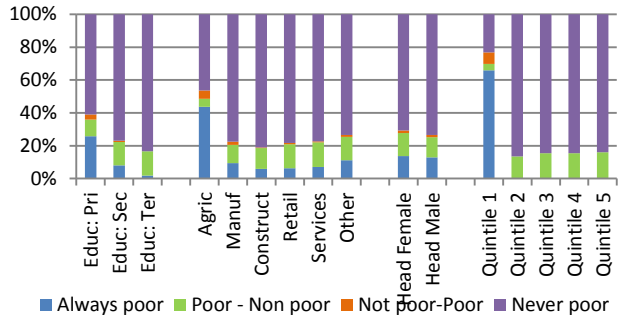
[10] The synthetic panel uses a different poverty line (US$4 per day) and, by construction, can only include a subset of households, i.e., those that have the potential to be in both periods. Thus households with very young heads in 2012 will be excluded from this analysis. Both of these characteristics of the synthetic panel analysis mean that the estimated levels of poverty will differ between this analysis and the national figures.

Figure II.11: Movements out of Poverty (Percent)



Source: Authors' calculations based on Panama household survey (*Encuesta de Mercado Laboral*. *EML*), rounds 2007 and 2011 and Hang (2011) methodology

Figure II.12: Changes in Poverty Status by Original Characteristic (Percent)



Source: Authors' calculations based on Panama household survey (*EML* rounds 2007 and 2011 and Hang (2011) methodology.

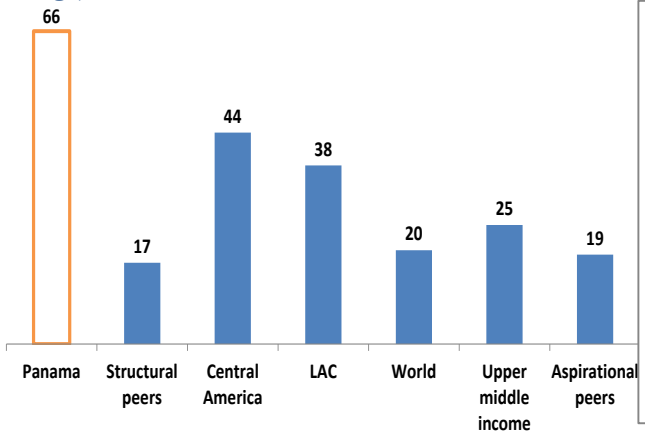
39. **But what are the sources of income that have helped people get out of poverty?** To understand the different factors that have contributed to poverty reduction, it is important to explore developments in labor markets (which typically generate the main income of the poor) as well as the role of public spending, including transfers (both cash and in kind) to the poor. The rest of this section explores these issues.

40. **Panama has been a top performer in terms of creating jobs, and the poor have benefited from it.** In 2013, the employed labor force in Panama was 66 percent higher than in 2001, an increase that far exceeds those of peer countries.[11] For example, the corresponding increase among the structural peer countries was 17 percent, while in Central America as a whole it was 44 percent (Figure II.13). The bottom 40 percent have benefitted from this job creation. While the bulk of net new jobs required completed secondary education or higher, 11.5 percent of new jobs were for unskilled labor with primary or incomplete secondary. In 2012, the average years of schooling of the bottom 40 percent of the population was 7.6 years compared to 11.7 for the rest of the population (Figure II.14).

41. **There is a large gap between the extremely poor and the rest of the population.** The heads of extremely poor households in Panama have only 5.1 years of education--4.5 fewer than the national average. They are also concentrated in the agricultural sector and work mainly as self-employed or unpaid family workers. The households of the extreme poor have much higher dependency ratios, driven by a much greater share of young children, and lower life expectancy. For every worker in an extremely poor household, there are 2.2 dependents, while the national average is 1.3. The dependency ratio for working age people (15 to 64 years) is 1.25 for extremely poor households, while the national average is 0.5.

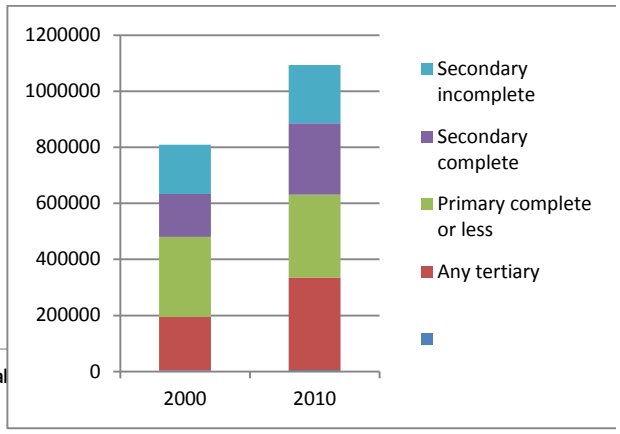
[11] Annex 2 provides detailed definitions of the different peer groups. Based on IMF WEO data on changes in the labor force corrected for unemployment.

Figure II.13: Employment Creation in Panama between 2001 and 2013 Versus its Peers (Percent change)



Source: Authors' calculations based on the WEO

Figure II.14: Job Creation by Education Level (Total number of jobs)



Source: Authors' calculations based on the Panama Population and Housing Census, 2000 and 2010.

42. **Social spending has increased in real terms also benefitting the poor.** Between 2007 and 2012, education and health spending have stayed relatively flat at around 4 percent of GDP (in a context of very rapid GDP growth), while social protection has decreased by half a percentage point of GDP (Figure II.15).With 13.3 percent of GDP in 2013, Panamanian social expenditure was in the middle range for Central America. In that year, Costa Rica dedicated almost 21 percent of GDP to social expenditure, while Guatemala only spent eight percent. In real terms, social spending has grown three percent annually over the analyzed period.[12] While access to health and education services has improved for all Panamanians, significant inequalities persist with less access in rural and indigenous areas where a large part of the poor and extreme poor live. Chapter V of this report provides more detail on the incidence of social spending.

43. **The country has continuously expanded the coverage of its social protection system.** In 2006, *Red de Oportunidades*, a conditional cash transfer program, was introduced to support families in poverty; in 2009, *100 a los 70* followed to support elderly in need; in 2010, *Beca Universal* was put in place to provide a cash transfer to children for school achievements; and in 2012, *Angel Guardian* was established to provide social assistance to people with severe disabilities in poverty or vulnerable conditions. While the quality of targeting of these programs differs and can be further improved, a large share of their benefits reaches the lowest income percentiles. Chapter V provides further detail on social protection, its incidence, and targeting.

44. **Progress towards the twin goals has been achieved not only because of the pace of growth but also its low volatility.** Panama has stood out not only in terms of its fast economic growth but also in terms of the low volatility of that growth (Figure II.16). In the sample of peer countries, only a few, such as Bolivia and Guatemala, had lower coefficients of variation of GDP growth, however at significantly lower average GDP growth rates. As mentioned before, the low volatility of economic growth is highly relevant for achieving the twin goals. This is due to the

[12] This growth rate is based on 2007 constant US$ and taking into account purchasing power parity. When spending in constant US$ is used, the increase appears larger.

impact of overall output volatility on consumption as well as the negative link between macroeconomic volatility and equality. [13]

Figure II.15: Panama's Social Spending by Sector (Percent of GDP)

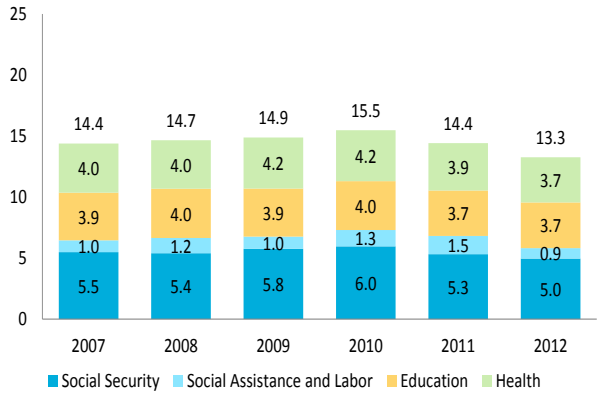
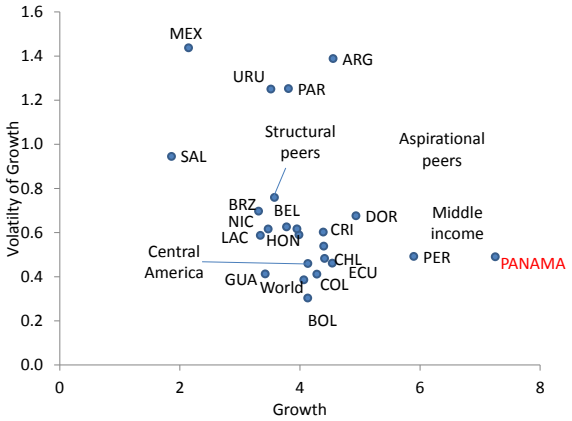


Figure II.16: Growth versus Volatility in Panama and its Peer Countries 2001-2013 (Average percent change)



Source: World Bank Social Sector Expenditure and Institutional Review

Source: WEO

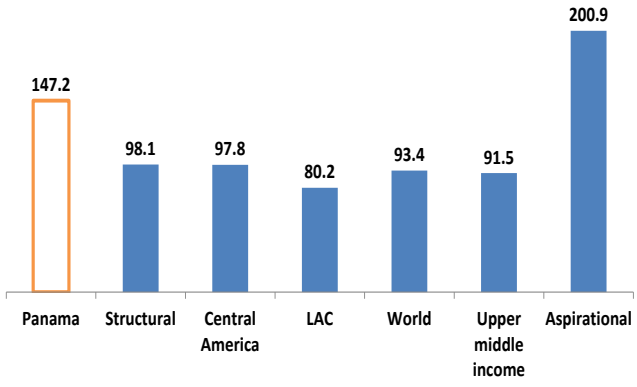
45. **This report (i) explores the elements behind the observed growth, poverty and inequality trends; (ii) identifies the factors that may affect the sustainability of Panama's recent performance and thus the priority areas for action or policy; and (iii) highlights specific opportunities for the country to continue as one of the best performers in the Latin American region on growth and poverty reduction.** The rest of the report is structured as follows. Chapter III looks in more depth at the evolution and features of economic growth and what may affect it going forward. Chapter IV compares Panama's progress to other countries to identify priority areas linked to maintaining growth and opportunities of which the country might well take advantage. The chapter contains a brief discussion of the prioritization process. Chapter V focuses on issues of inclusiveness, laying out the evidence of progress as well as the limits on this progress. Chapter VI attempts to benchmark Panama's progress on inclusion to that of other Latin American countries, identifying ethnicity as a priority area and drawing out opportunities for action. Chapter VII addresses the issue of sustainability from different lenses: economic, social and environmental. Chapter VIII, using an over-time benchmarking approach, lays out the case for water to be the final priority area and identifies opportunities for action. The final chapter covers knowledge gaps that arose during the process of preparing this report, gaps that would ideally be the focus of any subsequent analysis for Panama's ability to ensure inclusive and sustainable growth and make inroads on the twin goals.

[13] See for example Breen and Garcia-Penalosa (2004), Garcia-Penalosa and Turnovsky (2004), Huang, Fang, and Miller (2012), and Loayza, Ranciere, Serven, and Ventura (2007).

III. The Nature of Panama's Economic Growth

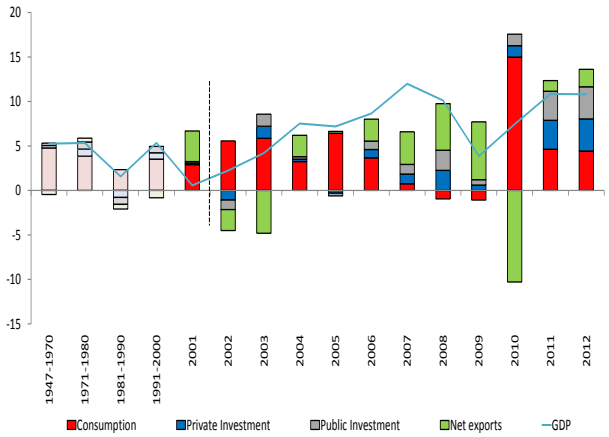
46. **Panama's exceptional growth performance over the past decade stems from an open and competitive economy.** Panama's real growth since 2001 has averaged 7.2 percent, more than double the average for LAC. The country has been one of the few that have been able to catch up with the U.S. in terms of per capita GDP in recent years (Figure II.7), and its growth rate displayed low volatility in international comparison (Figure II.16). The economy is one of the most open in the region (Figure III.1) and is well integrated into the global economy. It has done well in leveraging its geographical position, including through the Panama Canal, transforming itself into a well-connected logistics and trade hub and a financial center. Through continuous improvements in infrastructure, Panama has established a port network that is on par with major international logistics hubs and an airport network that allows the country to function as a major regional passenger hub for connecting passengers between North, Central and South America. Thus, the country has consolidated its position as the most competitive economy in Central America and second after Chile in LAC, according to the 2014-15 Global Competitiveness Report.

Figure III.1: Panama's Trade Openness compared to its Peer Countries, as Measured by the Share of Exports and Imports of Goods and Services in GDP (Percent of GDP)



Source: World Bank, WDI

Figure III.2: Contribution of Aggregate Demand Factors to Economic Growth from 1947 to 2013 (Percentage points)



Source: INEC, World Bank Estimations

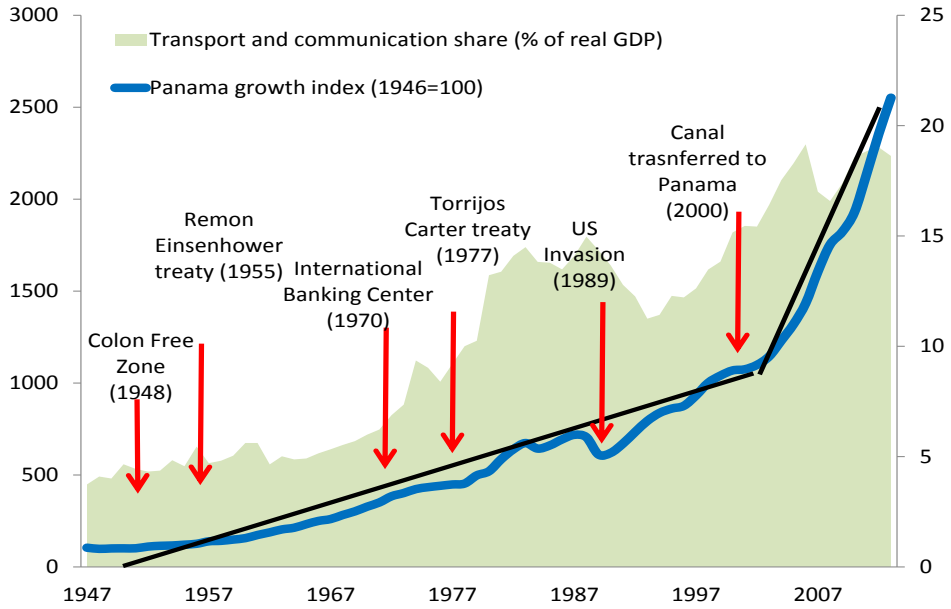
47. **In recent years, five main elements have explained this growth performance**: (i) the transfer of the Canal to Panama which has allowed it to benefit from the growth of world trade; (ii) the successful management and expansion of the Canal that spilled over to growth in specific sectors; (iii) the increasing role of public investment; (iv) the parallel increase in FDI and private investment; and (v) a stable macroeconomic environment. The rest of this section discusses these elements.

The Canal and Trends in World Trade

48. **The acceleration of growth followed the transfer of the Canal to Panama and coincided with its successful management.** The U.S. built the Panama Canal zone in the ten year period from 1904 to 1914 after receiving a concession for the construction and operation of the Canal and the areas surrounding it. In 1977, the two countries signed the Torrijos-Carter Treaties

that laid the foundation for the gradual return of the Canal to the Panamanian Government. On December 31, 1999, the transfer became effective.[14] Since then, the Canal has been managed by an autonomous Government agency, the Panama Canal Authority, which is widely recognized for its institutional capacity and efficient management. Even though there is no stringent proof of causality, the increased trend of the growth of transport and communications sector in particular seems to have followed the return of the Canal to Panama. After the transfer in 1999, trend growth, both of the transport and communications sector, as well as of the economy as a whole, have accelerated (Figure III.3).

Figure III.3: Transport and Communication Share of GDP and GDP Growth (Percent, Growth Index 1950=100)

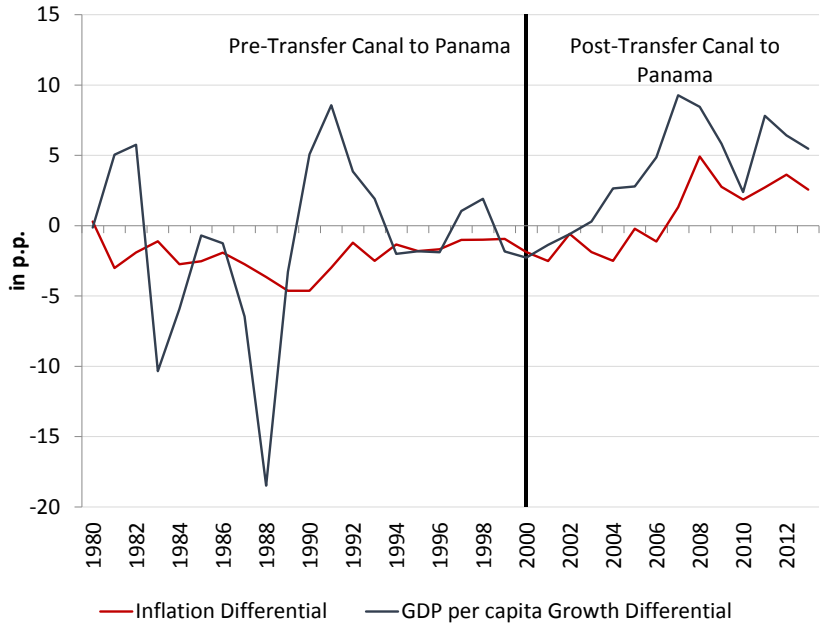


Source: INEC, World Bank Estimations

49. **The Canal has allowed the country to benefit from the increased world trade due to the fast growth of large emerging economies, such as China.** The recent catching-up with U.S. per capita income seems to have started in 2003 (Figure III.4). Even though Panama's convergence towards the U.S. was faster than that of LAC as a whole, the inflection points coincide. Therefore, it seems that a set of common factors might have driven both Panama's take off as well as the resurgence of growth in the rest of Latin America, albeit by different magnitudes. A forthcoming World Bank study suggests that these common factors are associated with the relatively fast growth of large emerging markets, such as China.[15] However, it is likely that the main channels of transmission from the growth of China to Panama have been different from those affecting other fast-growing Latin American countries, such as Bolivia, Chile, Colombia or Peru: for Panama, it is the Canal, rather than commodities.

[14] For a comprehensive description of the history and role of the Panama Canal for the Panamanian economy, see Barletta (2012).
[15] World Bank (2015):"The Rise of the South", Flagship report of the Chief Economist Office of the LAC Region, 2015.

Figure III.4: Panama-U.S. Growth Differential (Percentage points, Panama GDP pc Growth Minus U.S. pc growth p.p.) and Inflation Differential

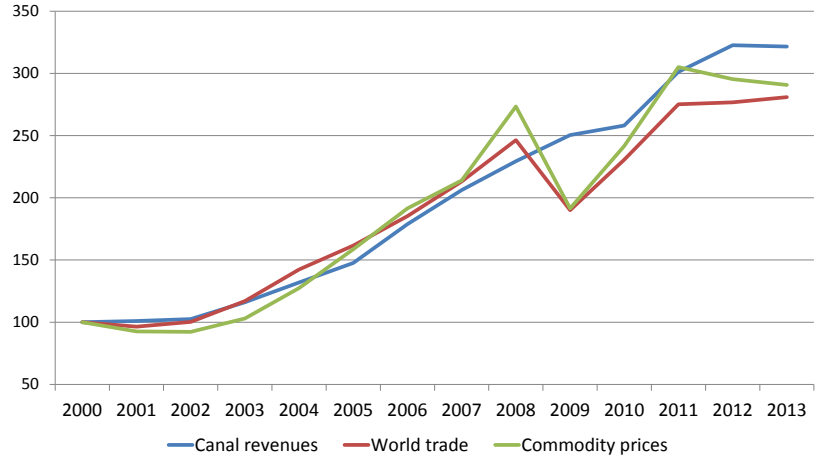


Source: World Bank (2015)

50. **Transshipment of goods with origin and destination to China has surged and the increases in revenues from the Canal between 2000 and 2013 are significant.** During these years, the value of world trade almost tripled from US$6,725 billion to US$18,890 billion. At the same time, the value of trade that passed through the Canal increased by 16 percent, from US$374 billion to US$434 billion between 2006 and 2013. Overall the share of total world trade going through the Canal slightly decreased from 3 percent in 2006 to 2.3 percent in 2013. The origins and destinations of goods passing through the Canal reflect China's increasing role in world trade. In 2013, the share of goods originating in China was 7.6 percent, while the share of goods destined for China was 14.5 percent. While the size of the largest ships that cruise the Canal has increased and therefore, the same volume of merchandise could be transported through the Canal with less shipments, overall passages through the Canal have declined from 12,198 vessels in 2001 to 12,045 in 2013.[16] The increase in trading volumes and passages has led to an increase in collected tolls from US$580 million to US$1.847 billion over the same period, and 1.7 and 2.4 percent of GDP in non-tax revenue to the Government.

[16] In 2000, the largest ship could carry around 3,500 containers, while in 2013 this had increased to 4,500 containers (the maximum of capacity for Panamax ships) in terms of ships that actually pass through the Canal. The second line of locks will allow ships with a capacity of 12,500 containers (the standard for Post Panamax ships) tons to also pass through the Panama Canal.

Figure III.5: Panama Canal Revenues, Commodity Index, and World Trade 2000-2013 (Nominal Index, 2000=10)



Source: Panama Canal Authority and World Trade Organization

51. **The resilience of Canal revenues is due to both the variety of goods going through the Canal as well as a proactive fee policy by the Canal Authority.** The three main types of cargo going through the Canal are containers, grains and oil (Table III.1). Containers mainly carry different types of manufactured goods and minerals. The Canal Authority constantly adjusts fees in order to compete worldwide, and the fees are based on volume and weight of the cargo (not the value). For this purpose, a special measurement has been created, the Panama Canal tons.[17] As a result, Canal revenues have continuously increased even in years when total cargo was declining, as for example in 2009. Moreover, the variety of goods as well as the adjustments in fees has decoupled Canal revenues from the price movements of any one good. Even fluctuations in overall commodity prices that commoved with the value of world trade have had little impact on revenues (Figure III.5).

THE IMPACT OF THE CANAL ON GROWTH IN SPECIFIC SECTORS

52. **The Canal has affected the Panamanian economy both directly and indirectly**. In addition to the direct effects through transport and communication as well as the ongoing construction to expand the Canal, Canal operations have positively affected the rest of the economy. The Canal drives the bulk of Panamanian service exports[18]. In particular, it generates revenues for the local economy and creates employment in the logistics sector. The recent expansion of the Canal is the largest project at the Canal since its construction and the largest infrastructure project in Panama. The expansion will double the Canal's capacity, increasing economies of scale and international maritime trade. The expansion program consists of four main components: (ii) a third set of new locks, (ii) a Pacific access channel, (iii) dredging of navigation channels, and (iv) improvements to water supply. The impact of the Canal expansion will benefit the economy through the construction stage and through the increase in traffic, which in turn is

[17] The Canal Authority uses the *Sistema Universal de Arqueo de Buques del Canal de Panama* (CP/SUAB), which is based on a formula to estimate the "Panama Canal tons" (a Panama Canal ton equals 100 cubic feet of volume capacity).
[18] Pagano et al, 2012

expected to boost Canal-related activities. The Government is also expected to have a significant inflow of additional revenues.[19]

Table III.1: Panama Canal Traffic by Type of Cargo

Year	Total Cargo	Containers	Grains	Oil	Others	Vessels
	(Panama Canal tons)	(% of total cargo)				(number of ships)
2001	193.2	30.7	28.1	17.6	23.7	12198
2002	234.9	28.1	22.5	12.5	36.8	11862
2003	242.7	32.4	20.6	10.6	36.4	11725
2004	266.9	32.4	20.0	12.5	35.1	12518
2005	279.1	35.0	19.7	12.4	32.9	12648
2006	296.3	38.2	19.9	11.1	30.8	12772
2007	312.8	41.1	16.0	12.7	30.3	13234
2008	309.6	40.2	16.4	13.9	29.6	13147
2009	299.1	39.6	19.9	16.1	24.4	12855
2010	300.8	34.8	24.1	15.5	25.6	12591
2011	322.1	35.3	24.8	15.2	24.7	12989
2012	333.7	35.9	25.0	15.5	23.6	12862
2013	320.6	36.7	16.5	22.7	24.1	12045

Source: Panama Canal Authority and World Trade Organization

53. **Taking advantage of its geographic position and the Canal, Panama has transformed itself into a regional logistics hub performing very well on indicators of connectivity and logistics.** The country has developed a sophisticated transport infrastructure around the Canal (Figure III.6). In particular, Panama has first-world infrastructure assets, with the Panama Canal as an axis for structuring the development of its logistics services. Currently, the majority of logistics operators of the world have permanent operational presence in Panama. This has resulted in the availability of a wide range of logistics services, mainly devoted to maritime cargo. It is one of the most connected countries in the region and has the highest Liner Shipping Connectivity Index (LSCI) in the LAC region (Panama has achieved a score of 45 ahead of Mexico with a score of 42 and Brazil with 37, and even ahead of developed countries like Canada with a score of 38).[20] Its geographic position and the Panama Canal give it an advantage when compared to other countries in the region. However, connectivity falls short of what other major logistics hubs such as Singapore and Hong Kong SAR, China achieve (scoring 107 and 117, respectively) on the LSCI. In the same vein, Panama lags behind these economies in terms of the 2014 Logistic Performance Index (Figure III.8). Hence, the potential to attract additional services by developing value-adding service infrastructure remains high. In the same vein, regional integration offers still untapped opportunities for further efficiency gains and growth (Box III.1).

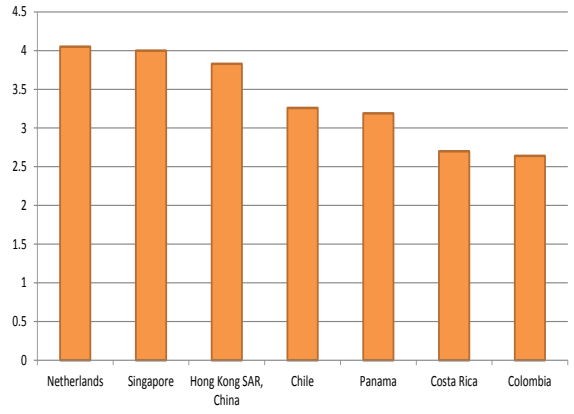
[19] Bussolo et al, 2011

[20] The index is computed by the United Nations Conference on Trade and Development (UNCTAD) based on five components of the maritime transport sector: number of ships, their container-carrying capacity, maximum vessel size, number of services, and number of companies that deploy container ships in a country's ports.

Figure III.6: Transport Infrastructure in the Canal Zone

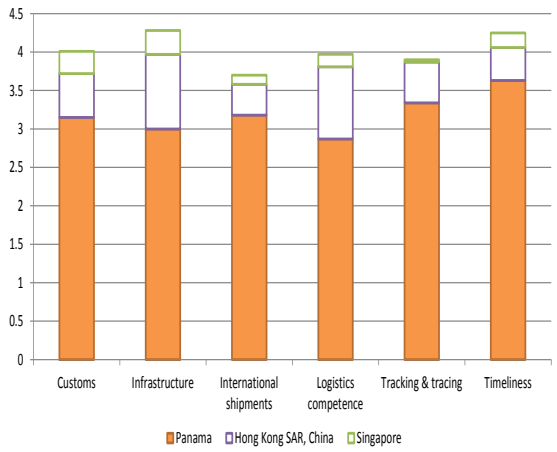
Source: Air Cargo Strategy

Figure III.7: Logistic Performance Index



Source: WDI.

Figure III.8: Logistic Performance



Source: WDI.

Box III.1: Regional Integration in Central America

The integration of markets and infrastructure networks has extraordinary power to stimulate growth through efficiency gains, technology spillovers and investment. However, despite several notable bright spots in economic cooperation, the promise of greater regional integration among the Central American countries has remained largely unfulfilled.

Central America's efforts at forming greater regional economic ties have been ongoing for decades, most notably on the trade side stretching from the establishment of a Central American Common Market in the 1970s to the Dominican Republic-Central America Free Trade Agreement and the EU-Central America Free Trade Agreement. But there have also been several significant integration successes outside of trade, including in the energy sector with the *Sistema de Interconexión Eléctrica de los Países de América Central* (SIEPAC), a transmission line project which came into being in June 2013 and connects the electricity grids of Panama, Costa Rica, Honduras, El Salvador, Guatemala, and Nicaragua. That interconnection could enhance investment opportunities for large-scale renewable energy projects, as well as improve the efficiency and the security of electricity supply in Central America. Financial interconnectedness is also on the rise, with almost all the banks in the region expanding operations into neighboring countries, although differences in legal and regulatory frameworks have limited greater connectedness.

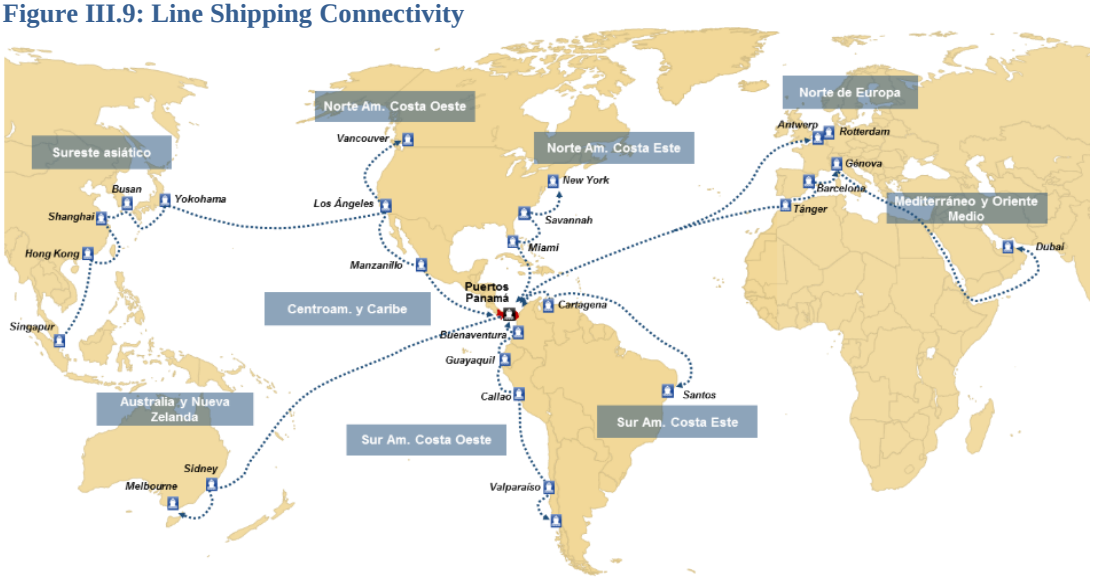
But by and large, Central America has not realized the gains expected from integration efforts. Exporters have not experienced appreciable growth in either export lines or markets since the signing of the regional free trade agreements. Bilateral trade in Central America remains an agenda of largely untapped opportunities, as evidenced by the negative elasticity of bilateral trade to different factors including adjacency and time adjusted distance[21]. This untapped potential can be attributed to deficiencies in infrastructure, burdensome processes and congestion at the border crossings limiting trade, even where distances are short. Poor road quality, particularly on secondary and unpaved rural roads, has led to road transport prices averaging 17 cents per ton-kilometer in Central America, one of the highest road transportation costs in the world[22]. Burdensome customs procedures, lack of regulatory harmonization (for example in terms of phytosanitary standards for agricultural exports), few established trade linkages, an atomized shipping industry, sparse information sharing on cargo and backhaul in trucking, and relatively few options and competition for shipping also limit the gains from trade free trade agreements. Transport and logistics costs can surpass 50 percent of the final price of goods traded, and it has been estimated that intraregional exports in Central America could have doubled if the region achieved the adjacency and time distance factors of a truly integrated region[23].

54. **In terms of other forms of transportation, railway and air transport are important contributors to Panama's logistics success while roads are the weakest link.** The Canal-railway corridor plays an important complementary function in the feeder service scheme of Panama's transshipment ports, linking the Atlantic and Pacific seaports on a 75 kilometer stretch along the Canal. Most of the ships passing through the Canal have their dedicated feeder services for either the American West or East coast and stop only once at either an Atlantic or Pacific transshipment port. Air transport is one of Panama's fastest growing sectors, contributing around US$1 billion to the country's GDP and creating over 10,000 direct and indirect jobs. This is the result of having positioned Panama's Tocumen International Airport as a major regional passenger hub for connecting passengers between North, Central and South America. Air passenger volumes have tripled from 2003-2013 with the national carrier COPA having the main market share as has international passenger traffic, growing from 2.1 million to 7.7 million during the same period, of which 50 percent are transit passengers. Contrary to its excellent position in ports and airports infrastructure, Panama ranks 48th in quality of road infrastructure.[24] Road density (190 miles of roads per one square kilometer of territory) is, together with Nicaragua, the lowest in Central America. Due to Panama's geographic location and the concentration of logistics around the Canal

[21] Gordillo, Stokenberga, and Schwartz, 2010.
[22] Osborne, Pachon and Araya, 2014.
[23] Marcelo et al, 2010.
[24] World Economic Forum (WEF)Global Competitiveness Report, 2013-2014

zone, 71 percent of all main routes are short-haul. Truck utilization is quite low with a high percentage (50 percent) of empty backhauls and one of the highest wait times in Central America (0.05h/km). Security costs are above the Central American average amounting to almost US$600 per vehicle in 2011 (a 27 percent increase compared to 2008).

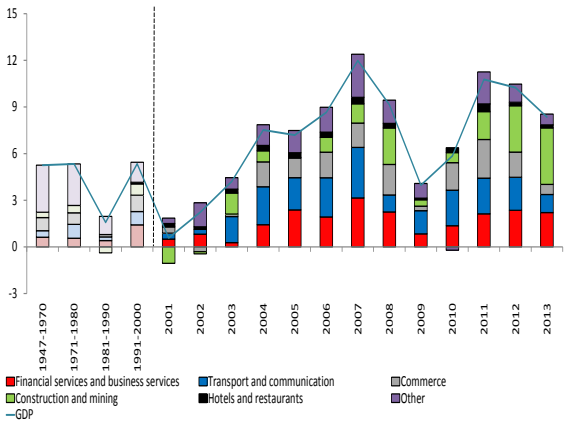
Figure III.9: Line Shipping Connectivity



Source: Air Cargo Strategy

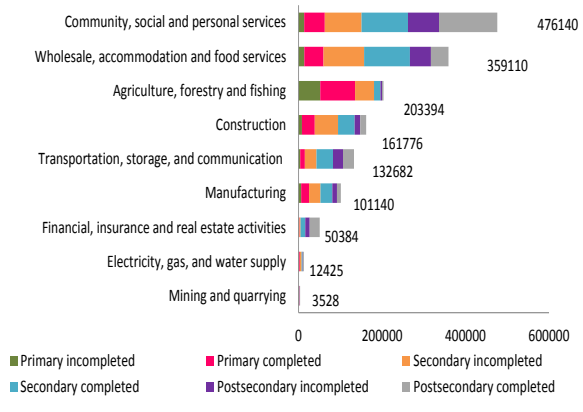
55. **In terms of sectoral composition, growth has mainly stemmed from the transport and communications, financial services, commerce and construction sectors** (Figure III.11). In the past decade, services have accounted for more than 50 percent of GDP growth, boosted by transport and communication (explaining on average 1.8 percentage points of growth between 2001 and 2013) and financial and business services (explaining 1.7 percent). Commerce, a traditional growth contributor has recently contributed less as a consequence of external conditions (1.4 percent on average between 2003 and 2011 versus 1.2 percent between 2012 and 13). In addition, construction has become one of the key drivers of the economy due to larger investment (both public and private) in residential and non-residential infrastructure (1.9 percent contribution over the past five years). Another emerging growth driver has been hotels and restaurants (0.3 percent contribution over the past five years). In contrast, the contributions of agriculture and manufacturing have declined (from 0.2 and 0.3 percent respectively in 2005 to 0.1 and 0.1 in 2013).

Figure III.10: Sectoral Contributions to GDP Growth from 1947 to 2013 (Percentage points)



Source: INEC, World Bank Estimations

Figure III.11: Employment by Sector and Education Level (Total number, 2012)



Source: INEC, World Bank Estimations

56. **Panama has continued to develop its position as an international financial center**. The country has established itself as a major offshore banking center hosting 80 banks with total assets of approximately US$112 billion, nearly three times the size of the country's GDP. Most of the country's financing needs are met by the banking sector and not by equity or bond markets.[25] The competitive and sophisticated banking sector of Panama has shown that it is agile and capable of adapting to a rapidly changing environment. The financial sector has a long tradition in Panama, preceding the Canal devolution. Its contribution to economic growth has been larger than those of traditional sectors, such as agriculture and manufacturing. The banking sector of Panama is widely regarded as healthy and sound. Most banks in Panama are well capitalized, profitable and liquid with non-performing loans at very low levels. The sector has been driven by investment in logistics and transport, construction and commerce, and by an increasing private consumption boosted by solid domestic demand. As a result, mortgage lending represents the largest share of total private credit in Panama at 30 percent followed by commerce (19 percent including Canal related export activity and tourism) and consumer credit (16 percent). Mortgage lending has been growing slightly faster than GDP over the last few years, but the lack of data on real estate prices, and as a result, the absence of loan-to-value ratios, represents a significant information gap for effective prudential management and supervision. Nonetheless, anecdotal evidence suggests that a doubling of urban real estate prices over the past five years has been roughly in line with the rapid pace of GDP growth.

57. **While commerce has been one of the traditional growth drivers, its contribution has shrunk recently, due to external factors affecting the trade of the Colon Free Zone.** Commerce has been driven by retail sales as a result of the increase in Panamanian incomes and the expansion of malls and commercial stores, and by wholesale sales, mainly from the Colon Free Zone. The Colon Free Zone is a giant bazaar cum container port where companies from across the world - many from East Asia from which 65 percent of the merchandise originates - can market

[25] In 2013, total internal credit to the private sector of Panama was US$38 billion. In comparison, the Panama Stock Exchange traded a total volume of only US$5 billion in 2013, less than 12 percent of GDP. Of this amount, US$3.7 billion corresponded to the private sector, mostly corporate bonds, and the remainder was domestically issued public debt. Equity represented just US$400 million.

their products to buyers from the region saving the latter the inconvenience of traveling to Asia and of stockpiling parts. This cluster has become a significant financial center serving, in particular, clients in Columbia and Venezuela as well as other parts of Latin America. In the last two years, the exports-import activity declined as a consequence of lower sales to Venezuela, Puerto Rico and Dominican Republic and the deceleration of sales to Colombia. Sales to Venezuela declined due to the problems of that country in accessing foreign exchange markets, while sales to Colombia remained stagnant due to increasing tariffs on textile and shoes exports.

58. **The construction sector has been an important growth driver in recent years and created most of the new employment between 2007 and 2012, especially for low-skill workers.** Over the past decade, construction exhibited strong growth explained by vigorous private investment in residential projects and public infrastructure projects, such as the expansion of the Panama Canal and the construction of line 1 of the Panama City Metro. In addition, in recent years, construction of hotels and storage has also contributed to the sector. Related indicators, such as concrete and cement production, have also exhibited vigorous growth. Overall, construction has grown on average 21 percent per year in the last five years, contributing 2 percentage points of GDP. Meanwhile, the sector contributed 17 percent of total growth in employment. It is very likely that in the last decade there has been a migration of agricultural workers from the provinces to Panama City to work in the sector. Construction is, after agriculture, the sector with the highest share of employees that have only secondary education completed or less (Figure III.11).

59. **The role of agriculture and manufacturing for growth has decreased, although agriculture remains a key source of income for the bottom 40 percent.** While still growing in absolute terms, the shares of both agriculture and manufacturing have declined in total GDP due to the strong growth of other sectors. The share of agriculture dropped from 7 percent of GDP in 2000 to 3 percent in 2013, and manufacturing declined from 10 percent to 5 percent. While agriculture only accounts for a small share of GDP, it employs 17 percent of the workforce and has contributed to poverty reduction through employing a large share of the bottom 40 percent (see Figure II.5). Main products include rice and beans for domestic consumption and of bananas, plantains, shrimp, sugar, pineapples, watermelons, and coffee for exportation. In terms of manufacturing, the textile industry is declining and the growth prospects of other industries, such as food processing, construction materials and chemicals, are dim.

60. **Panama is richly endowed with natural capital and has used it sustainably; nonetheless, the mining sector accounts for a small share of GDP so far although it could expand further in the future.** Between 2008 and 2012, the sector grew 14 percent, averaging 2 percent of the country's GDP. In 2011 and 2012, gold was the top export of Panama, totaling US$117 million and US$116 million, respectively. By 2013, the mining sector was producing US$553 million or 2 percent of Panama's GDP. Construction materials accounted for most of this production, while gold production and exports started declining, down to US$66 million in 2013 and to only US$38 million in the first quarter of 2014 (a 97 percent drop vis-à-vis the same period in 2013), due in large part to a significant decline in gold prices that made production uneconomical.

THE INCREASING ROLE OF PUBLIC INVESTMENT

61. **Investment has played a prominent role in Panama's growth in recent years, supporting a shift of the country's growth model towards domestic demand** (Figure III.2)**. W**hile private consumption has been an important driver of growth throughout (contributing on average 4.2 percentage points since 2001), the contribution of net exports has fluctuated with external conditions. During the period from 2004 to 2008, net exports contributed significantly to overall growth through high export growth in services (accounting for 2.8 percentage points of overall growth). During the crisis year 2009, net exports contributed positively to growth based on the significant contraction of imports. In the post crisis years, the contribution of net exports to growth has been moderate as the expansion of imports exceeded that of exports. While investment, both public and private, contributed only around 1 percentage point to overall growth between 2001 until 2009, its contribution doubled thereafter off-setting the lower contribution of net exports. Gross investment reached almost 30 percent of GDP in 2013 (Figure III.14).

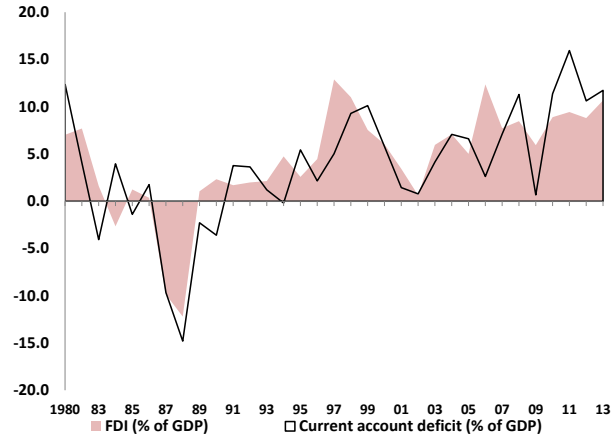
62. **The increased contribution of public investment to growth has been backed by an ambitious public investment program and the Panama Canal expansion.** The share of public investment in GDP increased from 3.1 percent in 2001 to 13.7 percent in 2013. In 2010, the Government launched a public infrastructure program comprising more than 100 projects such as highway upgrades, roads enlargement and upgrade in Panama City, airport infrastructure upgrades in six airports (including Tocumen Airport), a cold chain to support agriculture activity and reduce losses in the sector, the Panama Canal expansion, Metro line 1 in Panama City and a metro bus system, Panama City Bay remediation, improvement in the sanitation services, hospitals and 21 health care centers, Curundu urban renovation, 10 air naval stations, 4 new prisons, among others. The total investment of the program is estimated at US$16.7 billion with an overall execution above 80 percent. [26] The Panama Canal expansion project amounts to US$5.2 billion and is currently planned to be finalized by the end of 2015. In addition, according to the Government, this program was expected to generate at least 100,000 new jobs.

FDI AND PRIVATE INVESTMENT

63. **FDI has financed a large part of this infrastructure investment and remains the largest source of external finance of the current account deficit** (Figure III.12). Panama has been successful in attracting FDI inflows from a group of diversified economies from all over the world. In general, FDI has gained in importance in Panama since the late 1990s and in the last decade, it reached the current high level in excess of 10 percent of GDP. These buoyant FDI inflows have financed on average 80 percent of the current account deficit in the last three years. The average of the deficit on the current account of the balance of payment increased from US$942 million in 2003-2007 to US$3,962 million in 2010-2012. The main reason for the expansion of the deficit is a large increase in investment from an average of US$3,212 million in 2003-2007 to US$8,571 in 2010-2012, although was partly compensated for by an increase in savings from US$1,818 in 2003-2007 to US$4,307 in 2010-2012.

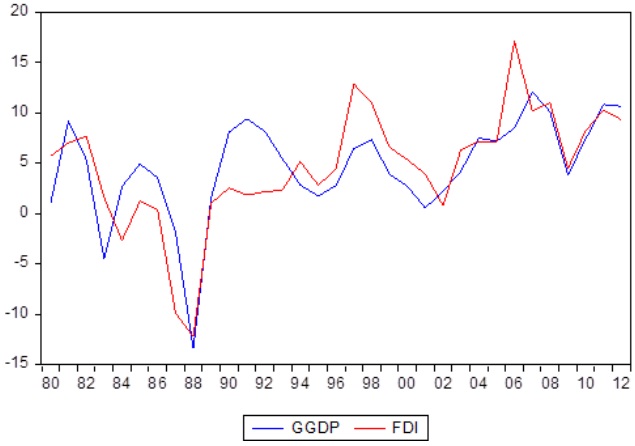
[26] The frequent use of turnkey contract may underestimate the total investment.

Figure III.12: Current Account Deficit and FDI



Source: INEC, UNCTAD, World Bank Estimations.

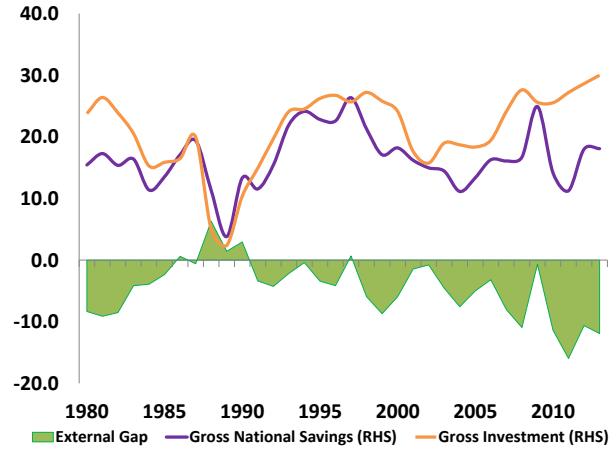
Figure III.13: Real GDP Growth and FDI 1980 to 2012 *(*Percent change*)*



Source: World Bank, WDI and INEC. Estimations.

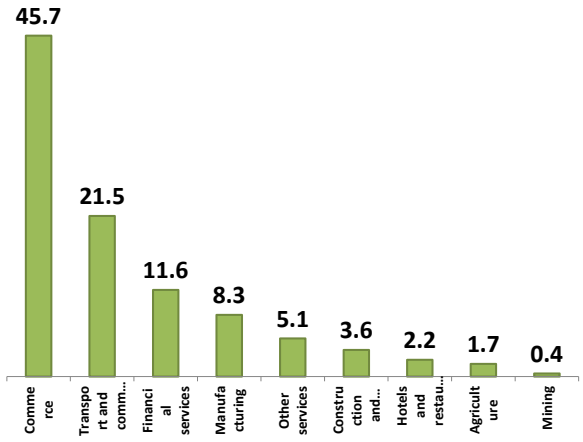
64. **As a consequence, Panama's growth rate is highly dependent on FDI** (**Error! eference source not found.**). A one percent increase in the FDI to GDP share has a short run impact on real GDP growth equivalent to 0.63 percentage points and a long term effect equal to 0.79 percentage points; in fact, 56 percent of the variance in the growth rate is explained by FDI.

Figure III.14: Savings versus Investment 1980 to 2013 *(*Percent of GDP*)*



Source: World Bank, WDI

Figure III.15: FDI by Economic Activity 2010 to 2012 (Share of total FDI*)*



Source: World Bank estimations and INEC

65. **FDI and private investment more generally have increased due to a favorable and improving business environment.** FDI inflows increased from 9 to 11 percent of GDP between 2010 and 2013 and private investment from 13 to 16 percent. As mentioned before, Panama is a top performer in Latin America in the Global Competitiveness report and has managed to improve its ranking in the Doing Business indicators, improving to rank 55, or 5th in Latin America in 2014, from rank 79 overall in 2007.

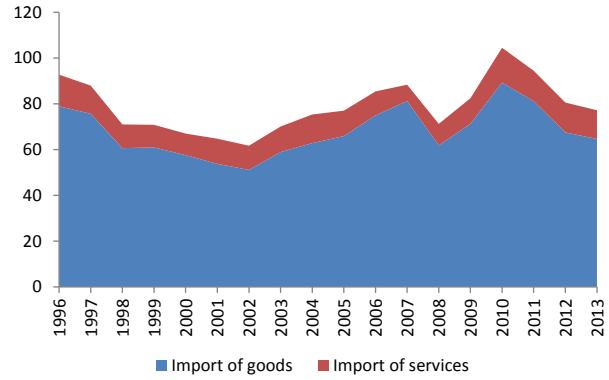
66. **Panama has been successful in attracting headquarters of foreign companies to Panama City.** Under the SEM (*Sedes de empresas multinacionales)* program (also called Law 41,

established in 2007), Panama created a new incentive regime (made up mainly of fiscal, labor, and migratory benefits) to attract foreign companies to Panama, similar to the regimes implemented in Singapore and Switzerland. These benefits are complemented by Panama's position as a logistics hub, its connectivity and well-developed infrastructure, its solid banking center and its dollar-based economy. Maersk Cargo, one of the most important shipping cargo companies in the world, was the first company to take advantage of this law and set its regional headquarters in the country in 2007. Maersk was followed by Procter & Gamble (2007), LG, Roche, Caterpillar, Western Union, Halliburton (2008), Phillips, Cemex, Pan American Life, Nestle (2009), Sab Miller, Otis, Ericsson, Sanofi (2010), Unilever, Johnson & Johnson, Baxter, Merck, Van Oord, Huawei (2011), Belcorp, General Electric, L'Oreal, Diageo, 3M (2012), Hino, Ace Limited, Neptune (2013), among others. As of 2014, there are more than 100 companies under this regime, which in turn have invested in Panama almost US$600 million and currently employ about 5,000 workers.

67. **FDI has flowed into a large range of sectors, with an emphasis on services.** To date, FDI inflows are concentrated in service sectors, such as commerce, transport and communications, and the financial services (Figure III.15). The sectoral composition of FDI in Panama more closely resembles some of the Caribbean countries, rather than other Latin American economies.

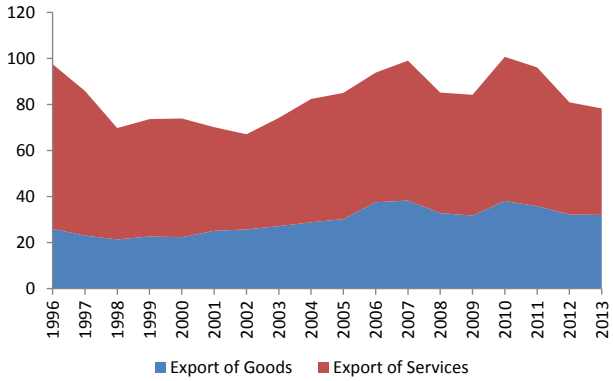
68. **While the increase in investment led to an expansion of imports, mostly of investment goods, Panama's exports have grown more slowly and were concentrated in services.** Public and private construction projects generated a need for investment goods, goods that were imported (Figure III.16). At the same time, Panama's exports are oriented toward services, unlike those of many other upper middle income countries. In the period from 2001 to 2013, exports of services were on average 62 percent of total exports (Figure III.17). These services included mainly transport and travel, representing more than 75 percent of the total export of services. Transport is directly linked to Canal services and its share has remained steady in the recent past. Meanwhile, travel has increased its share as a consequence of the increasing number of tourist arrivals (which by 2012 exceeded 1.6 million), coming mainly from the United States, Colombia and Venezuela. Panama's main export goods are textiles, chemicals and machinery and electric goods, and are sold primarily to United States, Venezuela and Colombia. Panama's export markets are diversified and not concentrated (in 2011, the Herfindahl index was 0.08).

Figure III.16: Imports of Goods and Services 1996 - 2003 *(*Share of GDP*)*



Source: WEO, World Bank Estimations

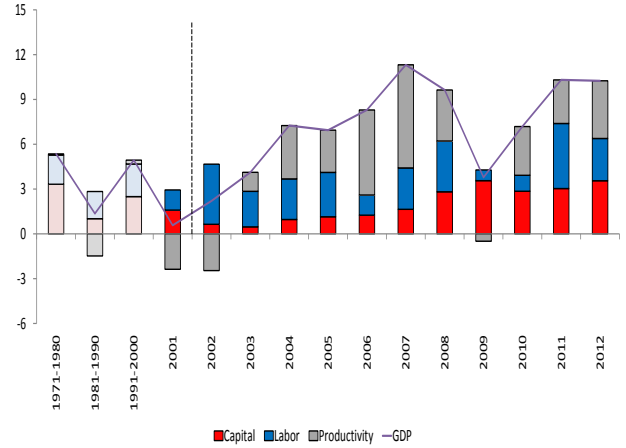
Figure III. 17: Exports of Goods and Services 1996 - 2013 *(*Share of GDP*)*



Source: WEO, World Bank Estimations

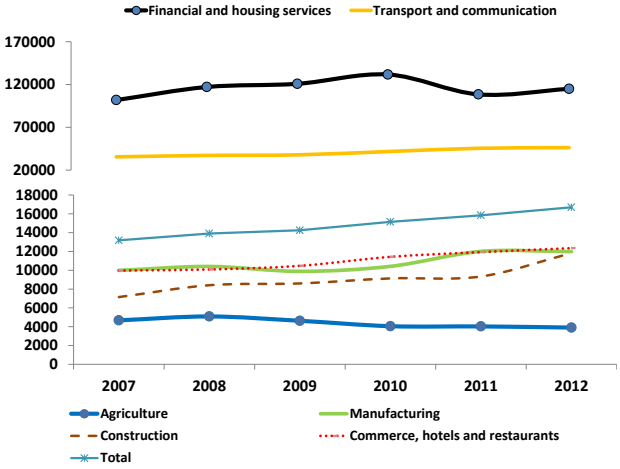
69. **Moreover, the increase in investment in physical capital has also been accompanied by an increase in the labor force and in total factor productivity, each explaining around a third of economic growth between 2001 and 2012** (Figure III.18). These results have to be interpreted with care because the methodology used biases the estimate of total factor productivity upwards.[27] Despite this upward bias and hence uncertainty about the size of the contribution of total factor productivity, its increase is consistent with the structural change observed in Panama. Workers from the agricultural sector moved into urban sectors, and the share of better paid services expanded, suggesting that resources were allocated more efficiently among sectors.

Figure III.18: Factors Contribution to GDP Growth 1971 to 2012 (Percentage points)



Source: INEC, World Bank Estimations

Figure III.19: Labor Productivity by Economic Activity (Dollars of 1996)



Source: INEC, World Bank Estimations

70. **At the same time, labor productivity has increased as well, displaying stark differences across sectors (**Figure III.19). Overall, labor productivity has increased by 27 percent between 2007 and 2012. The main services sectors – financial services, and transport and communication (which are capital-intensive) – are the more productive activities, with productivity well above the overall average. Meanwhile productivity in construction, a labor-intensive sector whose contribution to growth and job creation has been important, is just under half of the total productivity of the economy. Differences in productivity are also linked to skill mismatches and the low level of skills of people employed in labor-intensive activities. For instance, only 9 percent of the total workers in the construction sector have attained a post-secondary education, while in personal services this figure is 29 percent, and in financial and real estate activities, this number is almost five times the construction figure.[28]

71. **Job creation has been concentrated in the Province of Panama**. Almost two-thirds of the net job gain in Panama between 2000 and 2010 occurred in the Province of Panama, mainly in

[27] The estimation of total factor productivity was done using a stock of capital that does not properly adjust for the recovery of the Canal Zone in 1999. The reason is that the capital stock is constructed using the perpetual inventory model and there is no adjustment for the handover of the Canal. However, the impact of the transfer of the Canal to Panama on the GDP is properly accounted for (appearing under transport, storage etc.). As a result of this inconsistency, the estimate of total factor productivity is biased upwards.

[28] Personal Services include a large variety of occupations ranging from legal services and bookkeeping to housekeeping.

the commerce, construction and services sector. Chiriqui and Coclé followed with 9 and 8 percent of net job growth respectively. It is worth noting that job creation for each one of these sectors in the Province of Panama is larger than total job creation in any of the other provinces. Agriculture activity exhibits a loss of almost 9,000 jobs, the only sector with negative net job creation. Chiriqui and the *Comarca* Ngäbe Buglé showed the largest losses. It is very likely that the booming construction services sector has attracted workers from all over the country, mainly from rural areas, thus contributing to a reduction in the agricultural labor force.

PANAMA'S STABLE MACROECONOMIC ENVIRONMENT

72. **Another factor in Panama's strong growth performance was the country's stable macroeconomic framework.** Macroeconomic stability in Panama is based on full dollarization, fiscal policy that follows a fiscal rule, and a healthy banking sector. Dollarization dates back to a monetary convention signed with the United States following Panama's independence from Colombia in 1903 and coinciding with the beginning of the Panama Canal construction. Given the lack of independent monetary policy, fiscal policy plays a crucial role in stabilizing the economy. And Panama has adapted the social and fiscal responsibility law in 2002 that mandates fiscal deficit ceilings to help maintain fiscal prudence. According to the latest International Monetary Fund (IMF) Article IV Consultation, most local banks have a traditional business model with limited wholesale funding, and are well capitalized, profitable and liquid. The system showed its resilience during the 2008 global financial crisis.

73. **As a result fiscal deficits have been kept in check despite the high public investment and a low tax revenue collection.** As discussed above, public investment has been stepped up significantly in recent years and Panama has been characterized by relatively low tax revenues. Despite the recent tax reform program implemented in 2009 and 2010, tax revenue reached 12.0 percent of GDP in 2013. It averaged 11.9 percent of GDP in the last three years, below the average of 13.4 percent in Central America and the world average of 17.3 percent. Revenues from the Canal are a significant non-tax revenue source for the Central Government representing over 10 percent of total Government revenues. While dividends and fees from the Panama Canal and other non-tax revenues added another 4.8 percentage points of GDP in 2013 to Central Government's current revenues, they are low by international standards. Nevertheless, fiscal deficits remained relatively low amounting to -2.1 percent in 2011, -1.5 in 2012, and -3 percent 2013 (overall fiscal balance excluding the Panama Canal Authority).

74. **In recent years with particularly high growth rates, inflation rose slightly and has moderated with the reacceleration of growth rates leading to a gradual real exchange rate appreciation.** Inflation peaked at around 6 percent in 2011 and has since come down to levels around 3 percent. As these rates have been higher than the inflation rate in the United States since the economy took off in 2003, the inflation differential has led to a gradual real appreciation with modest consequences for Panama's competitiveness.

75. **Panama continued the downward trending of its debt-to-GDP ratio.** The ratio of public debt to GDP (including external debt contracted for the Panama Canal expansion) fell from about 66 percent in 2005 to about 41 percent in 2013. To encourage the development of domestic capital market, the authorities have also increased local debt issuance. Its efforts have been awarded by

all credit rating agencies. Panama achieved investment grade in the spring of 2010 and the rating has further improved in 2012. In April 2013, all three agencies confirmed Panama's BBB rating, one notch above investment grade, on par with Brazil, Mexico and Peru.

OUTLOOK

76. **There are good reasons to expect that growth will continue to be strong in Panama (6-7 percent) in the near future.** The completion of major infrastructure projects (Canal expansion and of the first Metro line) will lower public investment in the coming years; yet, this will be offset by the planned construction of the second Metro line, and the additional traffic generated by the expanded Canal. Further, there is no suggestion of a downturn in private investment according to leading indicators of residential and non-residential construction. Construction permits in the first half of 2014 reached 7268 (equivalent to US$1,155 million of new construction). This represents a similar amount of construction permits than in the first half of 2013 (7,254) but an increase in value of 20 percent.

77. **The prospects of sustained high growth in the coming years are also supported by emerging opportunities in key sectors such as transport and logistics, mining, financial services, and tourism**. The transport and logistics sector is already one of the most important and dynamic sectors in the economy and is expected to remain a main contributor to growth. The higher volume of cargo passing through the expanded Canal by itself will increase the demand for related transport and logistics services. In addition, major business opportunities in the next few years are related private transport infrastructure and the development of added-value logistics services. For example, the private sector is lining up investments of around US$600m to expand existing port terminals and US$300m to construct a new container terminal in the Pacific. Special economic zones and several logistics parks for warehousing and other services are also being developed. The recently started expansion of other transport and logistics subsectors as for example air transport, roads and railroads is expected to continue. Among these, Tocumen airport is currently undergoing an expansion with a total investment of around US$700m, and the road network is being modernized.

78. **While the mining sector could turn into a major driver of growth in the near future, it is subject to uncertainties. The largest business opportunity is the Cobre Panama project that is owned by Minera Panama, 80 percent foreign owned by Canada based First Quantum Minerals**. This project alone could involve around US$10 billion in investment over the first ten years. Over a projected 30-year life, it could also contribute US$7 billion to the Panamanian economy in the form of royalties and taxes, create 10,000 new jobs and over 2,000 temporary jobs (from 3,780 in 2013, or 0.2 percent of the country's employees), make US$1.5 billion in wage payments and US$800 million in social security payments. Uncertainties on the future outlook of the sector relate to the uncertain levels of global demand for minerals with effects on prices and the actual size of the underground deposits. Moreover, political, social and environmental factors add to the complexities (this issue is further developed in Chapter VII).

79. **Panama has the most dynamic banking sector in the Central American region and is expected to continue to support GDP growth.** On the one hand, the projected growth in the logistics and transport sector is expected to raise demand for funds for new investment projects.

On the other hand, high growth is raising Panamanians' income increasing the opportunities for Bank intermediation. In addition, the diversification of the economy into new growth sectors will increase the relevance of alternatives to bank finance. In addition, business opportunities are emerging in the insurance and reinsurance markets. The insurance market's penetration is low in regional comparison and Panama seeks to position itself as a reinsurance hub for Latin America.

80. **Tourism is an important sector for Panama. The total contribution of the travel and tourism sector to GDP was about 14 percent of GDP in 2013 and according to the World Travel and Tourism Council is expected to increase by 7 percent in 2014, and continue to grow by 6.3 percent annually over the next decade**. This growth will be supported by transport improvements (e.g., expansion of Tocumen) as well as a series of grants and incentives to invest in tourism facilities (more than US$100 million are in the pipeline to build new hotels in the next three years in Panama City, Chiriquí, Los Santos, and Bocas del Toro).

Filling Knowledge Gaps

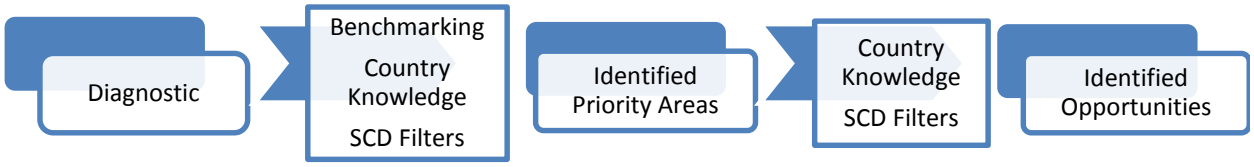
There are several sectors that are promising drivers of growth going forward. A thorough analysis of different growth scenarios would support present day decision-making. There are uncertainties about the sectoral composition of growth and the lack of knowledge about the channels through which poverty reduction and shared prosperity would be affected. A promising tool to fill this knowledge gap would be a computable general equilibrium model. Such a model would provide insights on the trade-offs between investing in different public services. It would also provide information on the channels through which different scenarios would affect growth, employment, and ultimately poverty reduction and shared prosperity.

IV. Prioritization Linked to Growth

PRIORITIZATION PROCESS

81. **The goal of the SCD prioritization process is to identify the most critical factors constraining or driving growth.** The diagnostic of growth in the previous chapter presents the first step in identifying priority areas and concrete opportunities for actions that Panama could take to increase the probability of growth continuing and contributing to welfare. In this Chapter, the next steps in the prioritization process are presented along with their key results. (Figure IV.1 shows the full steps of the conducted prioritization process). A similar process for inclusiveness and sustainability is carried out in subsequent chapters (Chapters V and VI for inclusiveness and VII and VIII for sustainability).

Figure IV.1: Prioritization Process



82. **To identify the key constraints to Panama's continued growth, the analytical benchmarking included three different approaches: cross-country benchmarking, perceptions data from enterprise surveys, and micro-analysis.** The purpose of this exercise is to understand which determinants of growth are the most binding and thus identify priority areas for action. In addition to identifying areas that are constraints to the country today, the analysis also focuses on those that could have the highest impact on growth going forward. Since no single method can provide a definitive answer to such questions, this exercise seeks to weigh a variety of evidence from different sources and approaches. This is complemented with the most recent country knowledge and experience on the emerging priority areas.

83. **Once the broad priority areas were identified, the next step in the prioritization process was a series of consultations with the country team and stakeholders in Panama.** The goal was to identify the most critical actions or policies within these priority areas that represent opportunities for Panama to continue to improve its progress on shared prosperity and extreme poverty reduction. To hone in on those opportunities with the greatest potential impact, a series of filters or criteria were applied: [29]

- **Impact on twin goals:** Under this criterion, the potential impact on the twin goals of reducing poverty and increasing the welfare of the bottom forty percent was assessed.
- **Time horizon of impacts**: Here the possible timeframe in which the impact could be expected to be realized was taken into account, identifying low-hanging fruits and seeking a balance between short- and long-term impacts.

[29] These criteria are those suggested in the "Analytics Approaches for a Systematic Country Diagnostic: A Resource Document", Section 5 prepared by Jeeyeon Seo, February 2014.

- **Complementarities:** This filter sought to assess the degree to which an identified opportunity in an area would have possible positive impacts on other constraints and priority areas.
- **Evidence-base**: The greater the evidence base, the more weight an identified opportunity was given in the prioritization process.
- **Political feasibility**: The country's political economy affects the feasibility of addressing the proposed actions or reforms. Although each opportunity was assessed against this criterion, opportunities with low political feasibility were still included.
- **Essential pre-conditions:** Two definitions of this criterion were used. The first, if the proposed actions or reforms were a necessary condition for a productive life, such as ensuring a "basic minimum standard of living for all". The second was if the opportunity was a critical one for other equally important opportunities to be addressed.

84. **This last step was carried out through two activities: (i) a facilitated one-day workshop and (ii) broad-based consultations with stakeholders in Panama. In the workshop the country team gathered information and inputs on possible policy actions and interventions that could address the challenges and constraints identified under each of the priority areas.** These inputs were organized in the form of matrices around specific opportunities to which the SCD filters were applied. This allowed sectoral teams to cross-fertilize across thematic areas, and engage in discussions on the feasibility and relevance of some of the interventions. These matrices were then refined and shared broadly with the country team to seek additional input as needed to fill remaining gaps in some of the areas/filters.

85. **This was followed by broad-based consultations with stakeholders in Panama to discuss and validate the identified priority areas as well as prioritized opportunities.** In particular, it allowed for better understanding of the political economy context and time horizon of some of the proposed actions. The full set of developed matrices of opportunities is included in Annex 3.

BENCHMARKING THE DETERMINANTS OF GROWTH

86. **To identify the constraints to Panama's continued growth, a variety of methods were used, including cross-country benchmarking, and micro and perception data.** The purpose of this exercise was to understand which determinants of growth are the most binding, and to identify not only the areas that are holding countries back but also those that could have the highest impact on growth.

a. Cross Country Benchmarking

87. **Cross-country regressions have been commonly used to identify the determinants of growth**. Growth regressions are used to identify which of a large number of factors are statistically and economically significant determinants of growth rates. Cross-country growth regressions provide a useful input for the analysis. Of particular interest are studies that not only estimate the determinants of growth but also benchmark the performance of individual countries in Latin America for each of the explanatory variables. In this regard, two sources are particularly useful. The first one is a study of economic growth in LAC by Loayza et al. (2005). The second one is a

forthcoming LAC regional study by Araujo et al. (2014) which updates and builds on the work by Loayza et al. (2005) and increases the sample in terms of country coverage and time period.

88. **In a first step, these analyses provide an estimate of the impact of the explanatory variables on economic growth in a large panel of countries, taking into account potential sources of biases.** The analyzed explanatory factors include: transitional convergence (initial GDP), cyclical reversion (initial output gap), structural policies in areas such as education, financial depth or public infrastructure, and stability policies, such as lack of price stability or cyclical volatility. In both cases, the impact of these factors on economic growth is analyzed relying on system General method of moments (GMM) estimation, an econometric estimation technique that takes into account unobserved country-specific effects and joint endogeneity of the explanatory variables (growth drivers) with the dependent variable (economic growth) in a dynamic model of panel data. Loayza et al. (2005) uses an unbalanced panel of 78 countries with non-overlapping five-year observations that span the period from 1961 to 1999. Araujo et al. (2014) expands the sample to 126 countries using five-year non-overlapping panel data from 1970 to 2010.

89. **The estimation results can give a sense of the relative importance of the factors behind growth; however, important limitations of the approach have to be taken into account.** First, as for any econometric estimation, the results may be biased due to omitted variables; second, instruments used for the GMM estimation may be mis-specified; and third, the proxies for the explanatory factors may not adequately capture the actual concept that is being analyzed. Given these limitations, the results from the econometric analysis are cross-checked with additional types of analysis and country-specific knowledge to form a plausible overall picture.

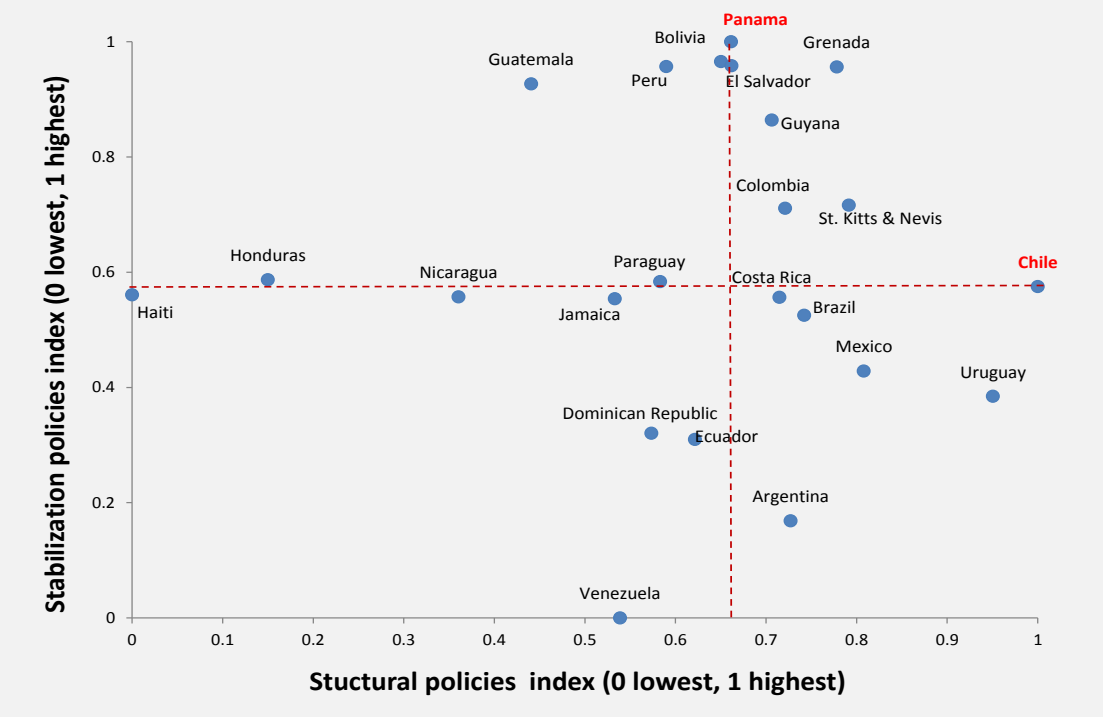
90. **In a second step, a benchmark exercise is carried out to explore the growth that a country could have achieved if it were a top performer in terms of each of the explanatory variables.** This type of counterfactual exercise highlights the areas with the largest impact on per capita income for a given country. This is the approach followed by both Loayza et al. (2005) and Araujo et al. (2014), although with slightly different specifications. The scenarios studied in Loayza et al. (2005) correspond to a hypothetical situation in which the determinants of growth in each country would improve to be on par with the top 25 percent of the countries. In Araujo et al. (2014), one of the scenarios considered corresponds to an improvement in the determinants of growth to the 90th percentile of LAC. This helps determine the possible effects that a stellar performance (relative to the rest of LAC) in specific policy-sensitive areas might have had for a country's level of GDP per capita. In addition, Araujo et al. (2014) consider what would be the impact on GDP per capita if the determinants of growth were to improve to the average levels observed in OECD countries.

91. **The analysis by Loayza et al. (2005) suggests that infrastructure, education, and the government burden are significant constraints to growth in Panama.** In contrast, stabilization policies, financial depth and external conditions appear insignificant.[30] The authors also find that increases in trade openness would positively impact growth in Panama. However, this finding

[30] As is common in the literature, both Loayza et al. (2005) and Araujo et al. (2014) classify the determinants of growth in different categories, including structural factors – such as human capital or infrastructure – and those determinants of growth that are related to stabilization policies – such as inflation.

likely overstates the possible impact of these policies in the case of Panama because the proxy used for trade openness in the regression analysis refers to trade in goods, while Panama is a country that exports services rather than goods. The fact that stabilization policies, financial depth, and external conditions as measured by terms of trade shocks are insignificant is consistent with Panama having performed very well in these dimensions in the past.[31]

Figure IV.2: Stabilization and Structural Policies Index



Source: Araujo et al (2014)

92. **The analysis by Araujo et al (2014) suggests that infrastructure and education are significant constraints to growth in Panama.** The results of the exercise indicate that Panama's GDP per capita would have been higher with more improvements in infrastructure and, to a lesser extent, education. Government consumption also appears as an area where Panama would benefit from improved policies. In particular, current expenditures appear large compared to the levels observed in the best performing countries. The authors do not find a significant impact on growth had Panama improved its performance in public sector institutions. However, this finding likely understates the importance of improving institutions, since the variable used in the model to proxy institutions is a measure of the degree of political competition and political constraints rather than a measure of the effectiveness or efficiency of public institutions. As in the case of Loayza et al. (2014), there is no significant impact on growth from an improvement in variables related to macroeconomic stabilization, reflecting the fact that Panama has already achieved a high degree of macroeconomic stability, as shown in Figure IV.2.

[31] Similarly, Swiston and Barrot (2011) find limited opportunities to boost growth given Panama's already relatively high performance in the explanatory variables used in their model.

b. Perception Data

93. **Microeconomic survey data can provide further insights into the key constraints to growth.** Data collected through the World Bank Enterprise Surveys (WBES) in particular provides a wealth of information about the experience of firms and what may prevent them from growing. The Enterprise Surveys, two of which were conducted for Panama (2006 and 2010), provide useful data on the perceptions of firms about what they experience as key constraints to growth. Perception data from the WBES suggest a number of areas that are to some extent aligned with the results of the cross-country benchmarking. This is particularly the case for the lack of an adequately educated workforce (education in the cross-country benchmarking) and electricity (infrastructure in the cross-country benchmarking).

Table IV.1: Top Obstacles to Growth (As Reported by Firms)

	2006	2010
Top five concerns of firms	• Electricity • Corruption • Crime • Tax rates • Macroeconomic instability	• Corruption • Practices of the informal sector • Inadequately educated workforce • Crime • Electricity

Source: WBES

c. Firm-Level Micro Data

94. **But Enterprise Surveys provide much more than just perception data.** A second type of data collected in these surveys is objective in nature. Importantly, this data relates to both firm performance (e.g., sales, employment, and productivity) and investment climate constraints (e.g., how much does a firm pay in bribes, as opposed to the perception of a given respondent on the extent of corruption). The availability of these objective measures help nuance some of the findings. For example, in the case of corruption –one of the top two obstacles–the 2010 Enterprise Survey shows that the percentage of firms who pay bribes is relatively small. Thus, the Graft Index, a composite index of corruption that reflects the proportion of times a firm was asked or expected to pay a bribe when soliciting six different public services, permits or licenses, is similar to the LAC average. Yet corruption perception has increased and now Panama ranks 102nd of 175 countries, while in 2001, it ranked 52nd. While this information does not solve the disconnect between a high perception of corruption and relatively average objective indicators of bribing, it suggests that other factors may well be affecting the perception of corruption.

95. **The econometric analysis of firm-level data helps to shed light on the areas that would have most impact on growth.** Because of the availability of objective measures of firm performance and of the seriousness of investment climate constraints, it is possible to estimate econometrically the relationship between investment climate characteristics and firm productivity. This is the exercise that Fajnzylber et al. (2009) undertake using a pooled sample of more than 10,000 firms from across Latin America. Similar caveats apply as mentioned for the econometric analysis of the benchmarking part of the analysis.

96. **Results from the micro-econometric analysis suggest that regulatory compliance, security, and infrastructure quality are the areas that would have the most impact.** Fajnzylber

et al. (2009) estimates that improvements in regulatory compliance would have the most impact on the productivity of Panamanian firms. Regulatory compliance captures the effect of regulation and institutional quality and is proxied by three variables that are likely to be a reflection of excessive or arbitrarily enforcement of rules and regulations. Interestingly, infrastructure quality is proxied in this analysis by firms' losses causes by electricity outages.

d. Synthesis

97. **The different sources of evidence suggest a broadly consistent set of areas that include infrastructure, education, and public sector institutions.** The cross-country benchmarking exercise concluded that improvements would mainly come from infrastructure and education. The analysis of microeconomic survey data highlighted regulatory compliance and security (both of which relate to the effectiveness of public sector institutions) and the quality of infrastructure (see Table for an overview).

Table IV.2: Synthesis on Process to Benchmark Priority Areas for Growth

	Cross-country benchmarking		Micro survey data			Emerging priority areas
	Loayza et al. (2005)	Araujo et al. (2014)	2006 Enterprise survey	2010 Enterprise Survey	Micro-econometric analysis	
Areas that would have the most impact	**Infrastructure** **Education** Government burden	**Infrastructure** **Education** Government burden	**Electricity** Corruption *Crime* Tax rates Macro-economic instability	Corruption Practices of the informal sector **Inadequately educated workforce** *Crime* **Electricity**	*Regulatory compliance* *Security* **Infrastructure quality**	Infrastructure (e.g., electricity) Education *Public sector institutions*

PRIORITY AREAS

Infrastructure with a focus on energy

98. **While the presented cross-country and microeconomic evidence points to binding constraints in the broad area of infrastructure, in recent years Panama has been ranked highly on infrastructure in international comparisons.** Panama is one of the most competitive countries in the region on infrastructure developments, such as roads, ports and airports according to the Global Competitiveness Ranking prepared by the World Economic Forum. Panama has positioned itself in the last decade as a foreign trade and logistics hub due to the development of infrastructure and services for the different modes of transport, with the Panama Canal at the center. Moreover, according to the World Economic Forum's Executive Opinion Survey, the quality of Panama's of port infrastructure performance exceeds that of other countries in the LAC region and is similar to that of Dubai and Hong Kong SAR, China. In addition, overall infrastructure has improved in recent years boosted by the Government's ambitious public investment program. Of particular importance are the Panama City-Colon highway, the Metro line, and upgrades to airports.

99. **However, certain infrastructure components appear to have lagged behind, such as urban connectivity and, most strikingly, energy.** The ability of various segments of society to access job and market opportunities in a cost effective manner is critical for broad-based economic growth. Metropolitan areas face congestion and connectivity challenges, particularly in the lower income neighborhoods on the outskirts of Panama City (Choloma and Araihan). Panama's capacity to invest in and manage urban development has not kept pace with the real estate boom which has taken place over the last decade. Panama City would need to significantly improve its offering in terms of public spaces, walkability and other amenities to compete with other global cities. The capital was listed among ten cities showing the steepest decline in the livability ranking of 140 global cities[32]. The full impact of the Metro on access and mobility requires a comprehensive and multimodal integration policy.

100. **The energy sector in particular, has not been able to keep pace with the growing demand.** The lack of the diversification of power generation has not matched the accelerated increase in demand in the last years[33]. Total installed capacity in Panama is approximately 2,500 MW, and is comprised primarily of hydropower (both reservoir and run of river) and fossil fuel-based generation. However, given system-wide inefficiencies (including several power plant failures) and recent droughts, firm capacity has fallen to as low as 1,600 MW, while peak demand reached 1,500 MW, leaving Panama vulnerable to shortages. Generation capacity expansion is not the only cause of the current power sector crisis. The fact that Panama's transmission grid has also failed to keep up with growing demand has both limited the delivery of electricity from existing generation assets to distributors and prevented new power plant construction. With the system unable to meet rapidly growing demands, the Government has been forced to put emergency response measures in place and the energy shortage experienced during dry seasons is putting tremendous pressure on electricity prices.

101. **The underlying reason for the current situation is market distortion due to weak strategic planning, along with subsidies and inefficiencies in the institutional set up.** The subsidies reduce incentives to invest in efficient power generation, transmission and distribution. The Government plays a major role in the transmission market, while the private sector owns the power generation and distribution assets. The potential expansion of two interconnection lines to Costa Rica and Colombia, the latter being the most difficult to execute, are expected to reduce pressures on the power market. The current subsidies scheme poses risks on fiscal sustainability and has heavily distorted the prices of the market, which in turn has increased the political cost of modifying the scheme. Electricity costs in Panama remain among the highest in Central America despite Government subsidies (the price per KWh for industrial users was 16.95 cents/US$, for commercial users 17.33 and for residential users 13.83).

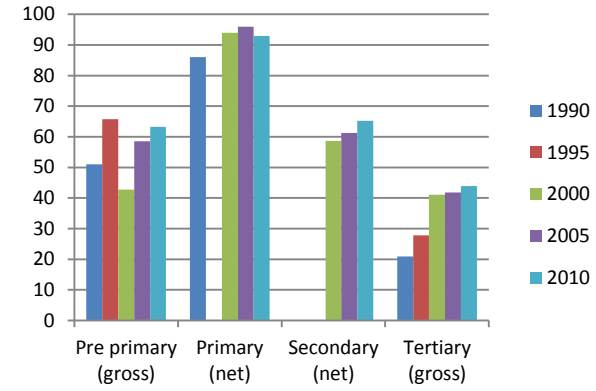
Education and Skills

102. **Panama has made large gains in education in recent years, with primary enrollment almost universal and increasing secondary enrollments.** Pre-school enrollment has also been expanded, boding well for future educational attainment. However, the sector faces a number of challenges that may undermine growth and productivity going forward. Retention in secondary

[32] Economist Intelligence Unit (2012).
[33] Espinosa el al (2013).

education is low and there are concerns about the quality and relevance of the education system for the present job market.

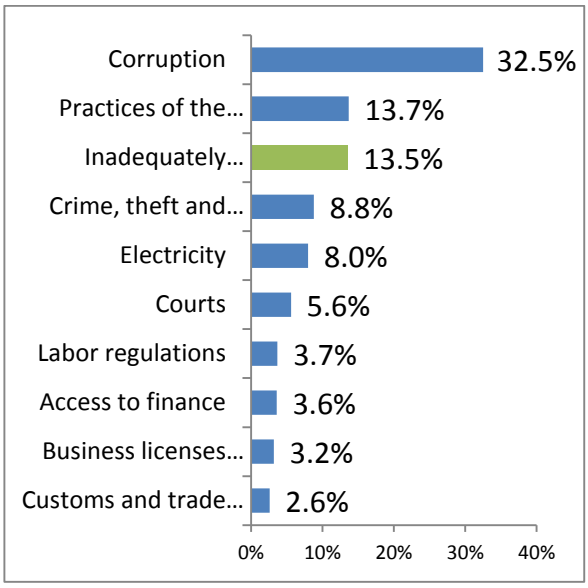
Figure IV.3: Enrollment Rates by Level, 1990-2010



Source: WDI

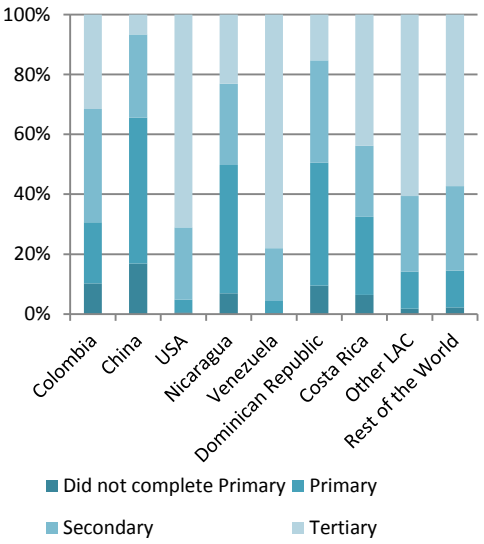
103. **The demand for highly educated workers is strong and growing in Panama, yet the system faces significant drop-out numbers at the secondary level**. Between 2000 and 2010, the number of jobs in the country grew by close to 40 percent. The bulk of the jobs created, however, required completed secondary or tertiary education (see figure in Chapter II above). Less than eight percent of all jobs were filled by those with primary schooling or less. Despite this strong demand, the enrollment rate in Panama for secondary schooling is low. After age 12, enrollments begin to fall; highlighting the difficulties the system has in retaining students. The fact that this pattern has changed very little between 2007 and 2012 is of further concern.

Figure IV.4: Top Ten Business Environment Complaints



Source: WBES, (http://www.enterprisesurveys.org); People 1st, "Skills 2020: World-class skills for Panama's hotel and tourism sector"

Figure IV.5: Educational Attainment Among Immigrants in the Labor Force in 2010 (By country of birth)



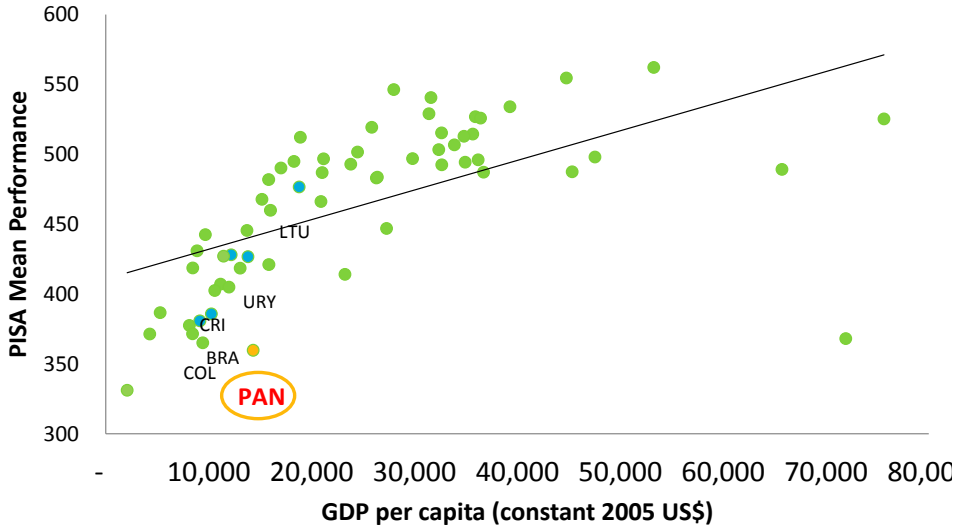
Source: Authors' calculations based on Population Census 2010.

104. **Firms highlight secondary and vocational education as a binding constraint for the business environment.** A study of the top business environment constraints (World Bank, 2011) found an inadequately educated labor force to be one of the top three constraints for developing a business in Panama (Figure IV.4). The quality of graduates appears low: in 2009, on the international education tests (PISA), Panamanian students underperformed by international standards, having one of the lowest scores (Figure IV.6: PISA 2009 Mathematics Mean Score (By country for 15-year-old students and GDP per capita(No further data exist as the country pulled out of the tests after 2009). The expected growth in demand for high skill workers may not benefit Panama citizens if those with the required skills are not available. Although international migration is low in Panama at present (4 percent of the population immigrated in the last ten years), the education levels of many of these migrants are above those of the national population (Figure IV.5).

105. **Dropout rates remain high despite the high returns to education.** Panama exhibits large positive economic returns to education, higher than Honduras, Costa Rica and El Salvador.[34] On the one hand, the opportunity costs of schooling have probably risen: the massive job creation in recent years has provided income opportunities for students. On the other hand, there is a lack of physical infrastructure at the secondary level: for many in remote rural areas, access to schooling is still a binding constraint.

[34] Central America Social Sector Expenditure and Institutional Review, 2014.

Figure IV.6: PISA 2009 Mathematics Mean Score (By country for 15-year-old students and GDP per capita)



Source: INEC, World Bank Estimations

106. **Educational quality is a key factor that can affect retention.** Panama spends slightly more than the average for Latin America (4.2 percent of GDP compared to 4 percent), yet based on the PISA math and education scores, Panama's efficiency of public spending on education is low.[35] Panama's score on the Public Sector Efficiency Index[36] is only 0.88 compared to the LAC score of 1.0. Moreover, Afonso et al (2013) provide evidence of a drop in the quality of Panama between 2000 and 2010 that in their measures represents a drop of more than 20 percent in the efficiency of the sector. Teachers in Panama work significantly fewer hours than other employees in the economy, with male teachers having the largest gap in hours.[37] Teachers also earn less than their counterparts in other countries in part due to an excess supply of teachers. There is also some evidence of excess production of teacher graduates of generally low academic quality. The most recent data for Panama suggest that only 59 percent of graduates from teacher training schools are actually working as teachers. On a more positive note, Panama has benefited from smaller class size: the pupil-teacher ratio is less than 20 to 1, lower than in some high-performing OECD countries.

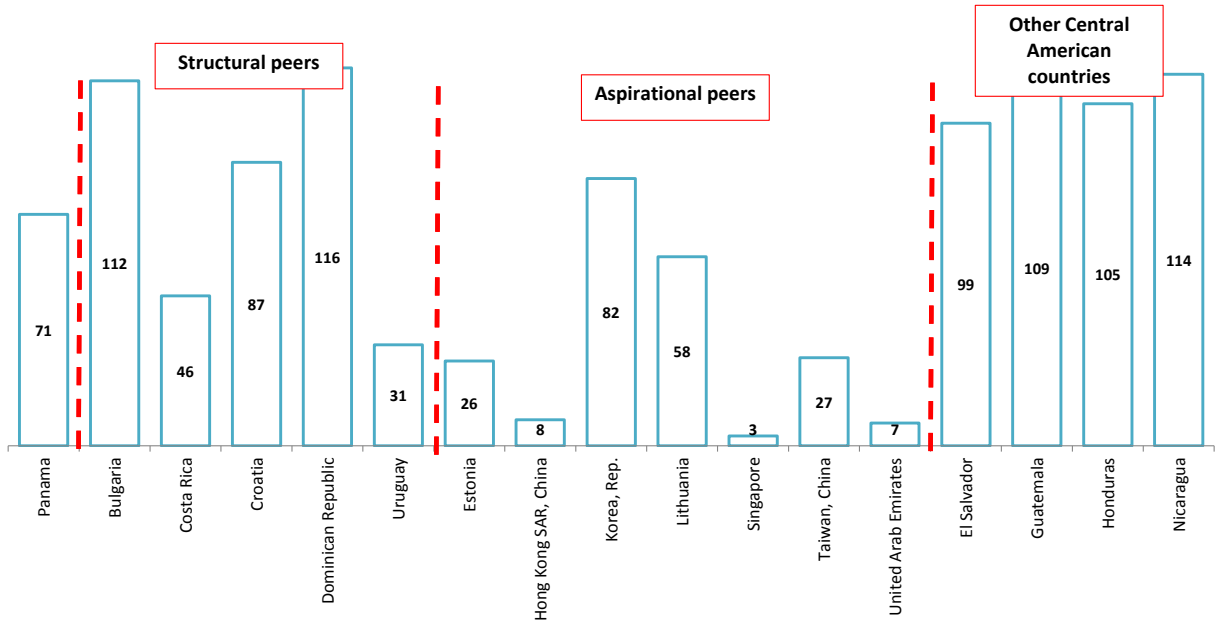
Public Sector Institutions (including transparency, efficiency, and regulatory framework)

107. **There is a mismatch between the sophistication of Panama's economy and the effectiveness and efficiency of its public sector institutions.** In terms of institutional quality, Panama significantly lags behind its aspirational peers (Figure IV.7) according to the World Economic Forum's Global Competitiveness Ranking. Panama ranks 71st out of 144 countries, while Hong Kong SAR, China and Singapore rank 8th and 3rd respectively.[38] The challenges that

[35] Afonso et al, 2013.
[36] The index takes into account the achievements in education, related to public spending on the education sector.
[37] Bruns, forthcoming.
[38] The Institutions ranking is one of the 12 components of the Global Competitiveness Index prepared by the World Economic Forum and updated every year. The ranking is the average of 21 subcomponents such as property rights, intellectual property protection, diversion of public funds, public trust in politicians, irregular payments and bribes,

Panama faces regarding its public sector institutions can be summarized as relating to transparency, the regulatory framework, and efficiency of public sector management.

Figure IV.7: Panama's Institutional Quality in International Comparison



Source: World Economic Forum, Global Competitiveness Indicators

108. **The challenge of the transparency of Panama's public institutions is widely recognized.** Government practices are perceived as relatively non-transparent and the monitoring and evaluation function is weak. The issues raised by the Global Forum in the OECD highlight some of the weaknesses. The Corruption Perception Index prepared by Transparency International shows that Panamanians perceive their government as more corrupt in recent years than in earlier periods. Moreover, public trust in politicians is low in Panama; in 2010, just over half of the population expressed positive levels of trust in the national government and only a third for the National Assembly (LAPOP, 2010).

109. **Panama has demonstrated high levels of efficiency in the management of the Canal, efficiency that is not been replicated across the full public sector.** An overarching problem is the inability to translate a strategic vision into implementable policy. Despite sundry multi-year sectorial strategy documents, the lack of linkage between the various plans and of strategic planning, including at the municipal levels, reduces Government efficiency and erodes the foundation for efficient fiscal management[39]. In addition, budget credibility is one of the key public financial management weaknesses in Panama, also affecting Government transparency. The lack of budget predictability and the difficulty of realistically defining activities to be executed during the following year promote improvisation and reduce budget relevance and strategic value, as it is

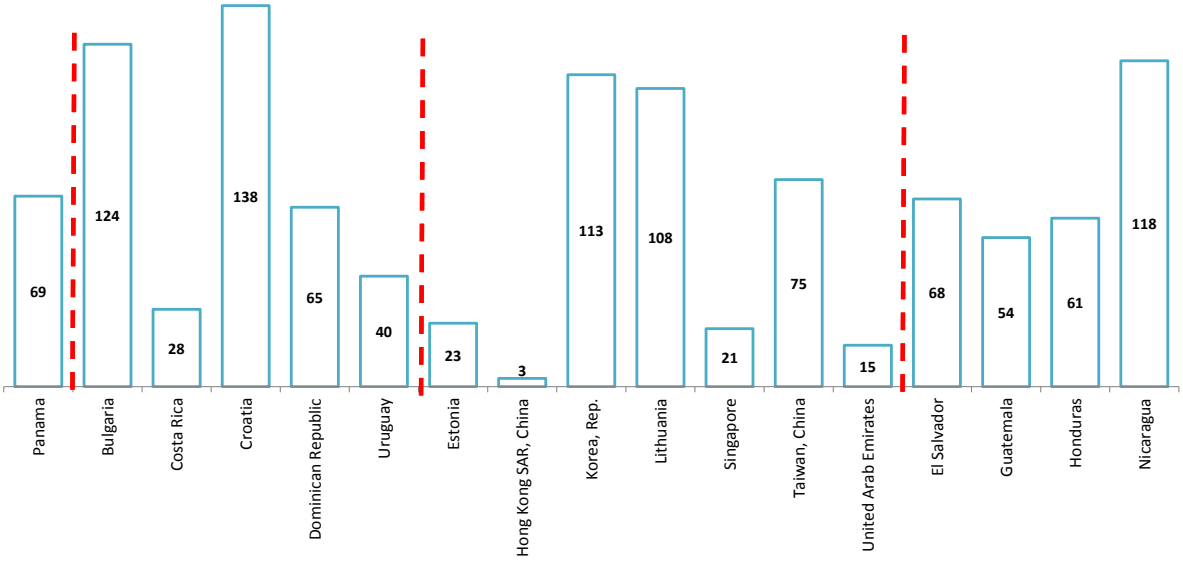
judicial independence, favoritism in decisions of government officials, wastefulness of government spending, burden of government regulation; among others. These subcomponents are built using the data from the Executive Opinion Survey applied in 144 countries

[39] Public Expenditure and Financial Assessment report, 2013

no longer a strategic tool of public administration and planning;, but rather becomes a tool for registering commitments and transfers.

110. **Panama's regulatory framework shows important weaknesses that are apparent in most sectors of the economy.** According to the World Economic Forum's Global Competitiveness Ranking, Panama ranks 69st in efficiency of legal framework in challenging regulations out of 144 countries, while Hong Kong SAR, China and Singapore rank 3rd and 21st respectively. Box IV.1 illustrate some of these weaknesses in the case of energy.

Figure IV.8: Panama's Efficiency of Legal Framework in International Comparison



Source: World Economic Forum, Global Competitiveness Indicators

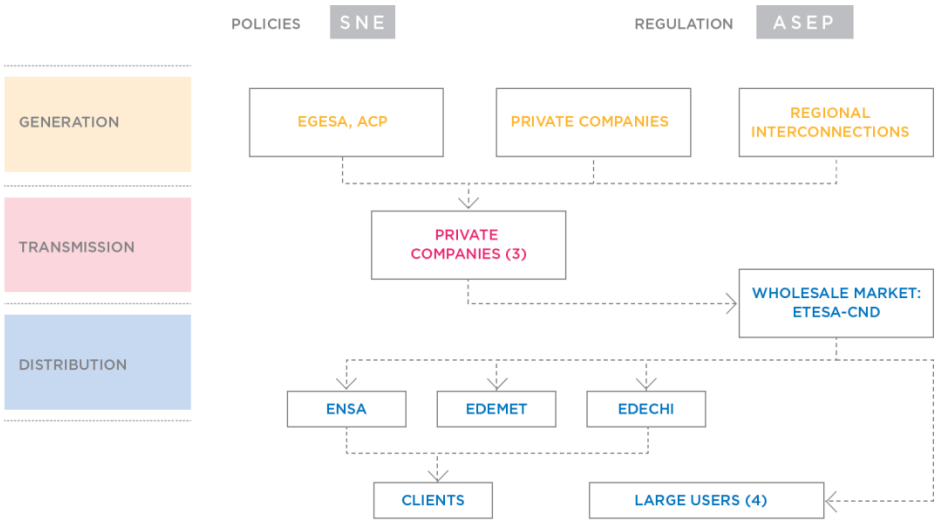
Box IV. 1: Institutional Challenges of the Energy Sector

The governance system in the energy sector has been criticized for its lack of proper planning, weak or limited staffing and institutional capacity. Slow and/or not always-transparent decision-making is a key factor in the slow pace of investments in energy infrastructure expansion and strengthening in recent years. Further, existing policies, legislation, and regulations – the rules of the game – need to be revisited to meet the needs of a modern, expanding, and diversifying power system that is developing in Panama.

The sector is also characterized by a multiplicity of agencies that are not coordinated. Four primary institutions comprise the government's role in the energy sector: (i) the National Energy Secretariat is the lead national agency that coordinates the actions in the energy and power sector across ministries and agencies; (ii) the National Electricity Transmission Company (ETESA) is the only participant in the transmission sector. It was created by Law 6 and is the remnant of the Institute of Water and Electrification (IRHE) responsible for managing the state monopoly on the energy sector since 1997. It has the responsibility for expanding and operating the transmission system, as well as operation of the energy market; (iii) the National Dispatch Center (CND) which coordinates the participants in the distribution market, and (iv) the National Public Service Authority (ASEP) which, besides ensuring compliance with regulation in the electricity sector, is responsible for regulation related to telecommunications, water delivery and sewage. In the distribution sector, three private companies control power distribution: ENSA, Edemet and Edechi. The Panamanian State owns about 40 percent of the shares of ENSA, while Edemet and Edechi belong to the Spanish group Unión-Fenosa.

The graphic below illustrates the relationship between the relevant agencies.

Energy Sector Institutional Framework Diagram



Source: IDB

IDENTIFIED OPPORTUNITIES

111. **A series of specific opportunities have been identified within each of the priority areas described above, namely energy, education and skills, and public sector institutions**. Through the application of a series of filter and criteria[40] along with ground-truthing with stake-holders in Panama, a set of opportunities for action were identified. These opportunities are briefly described here while a detailed description of each opportunity can be found in Annex 3. The explicit links

[40] See the first section of this Chapter for the detailed list of criteria used.

between these opportunities and their effect on specific sectors in the economy that could turn into future drivers of growth is outlined as well.

112. **Identified opportunities in the context of education and skills include both concrete policy measures and analytical work to understand the underlying causes of the challenges.** he first opportunity consists of rendering secondary education in Panama more relevant for the labor market. This could be achieved through the introduction of a vocational training program with participation of the private sector and public sector coordination. This could also be complemented by a revision of secondary and tertiary education curricula to integrate private sector needs into the training of young Panamanians. A highly relevant action in this regard appears to be the comprehensive introduction of English into curricula. A second opportunity consists of strengthening the monitoring and evaluation of education with the goal of improving the quality. Low-hanging fruit in this context are participating in the 2015 PISA testing and analyzing the causes of drop-out from secondary education both by exploiting existing administrative data and by holding focus group sessions. Finally, a third opportunity consists of addressing high drop-out rates by expanding the *Beca Universal* program through targeted offerings for vulnerable students, including culturally appropriate offerings in indigenous areas.

Filling Knowledge Gaps

There is little data available on coverage and quality of public service delivery across the country. The role of municipalities in regulating and/or providing public services is fundamental in reaching out to the unserved. Understanding the correlation between weak local governments and access/quality of public services in the poorer geographic regions is critical to promoting better service delivery. The same is true for linking spatial data on public social services to outcomes. A contribution to filling this knowledge gap could consist of compiling detailed information (data bases) on the quality and resources of regions, municipalities and metropolitan areas in Panama.

113. **For energy, opportunities present themselves in the context of short-term demand management, the institutional framework, and power generation, transmission and distribution.** The first opportunity consists of the management of national energy demand. This opportunity could be realized in a short time frame. In other countries such as Brazil, these types of short-term demand response measures led to a 20 percent reduction in demand. The impact in Panama is expected to amount to a 10 percent reduction. The second opportunity consists of the modernization of the institutional framework of the sector, including improving the coordination among institutions that are key players in the sector. The third set of opportunities relates to the physical infrastructure of energy generation, transmission, and distribution: by adding renewable energy or natural gas power generation, Panama may mitigate the risks of power shortages through (a) taking advantage of their costs being lower than the existing oil-based generation; (b) reducing vulnerability to droughts associated with large hydropower plants; and (c) reducing dependence on imported fossil fuels. By expanding the number of transmission lines, electricity flows from existing and planned power projects will not be limited by the capacity for throughput as is currently the case given the lack of adequate power transmission.

114. **Opportunities on public institutions relate to transparency and efficiency of public institutions as well as the adequacy of the regulatory framework.** Two main opportunities emerged in the context of transparency. The first is related to meeting the standards on tax and financial information sharing of the Organization for Economic Co-operation and Development (OECD), the second is related to improving public procurement practices, in particular for large

infrastructure projects. In the context of public institution efficiency, three further opportunities present themselves. First, a move to performance-based budgeting, accompanied by better coordination among Government plans and entities, could have major benefits. Second, developing institutional capacity at the municipal level is needed to support the move towards decentralization. Improving fiscal management would be the third opportunity under public institution efficiency. This is particularly relevant in a country like Panama that has fully out-sourced its monetary policy to the United States Federal Reserve and that has little room for fiscal maneuver due to the deficit ceiling mandated under the Fiscal Responsibility Law. These strong constraints on fiscal policy mean that the only way in which Panama can create fiscal space is through efficiency gains. Finally, improving the adequacy of the regulatory framework including the formulation and adaption of a modern mining regulatory framework, the enforcement of social and environmental safeguards regulations; and third, an update of financial sector regulations. These actions are particularly relevant for the financial and mining sectors, which are promising sectors for the economy going forward.

115. **The impact of making progress on the opportunities identified will vary by sector.** Some specific examples of how these policy opportunities will affect promising sectors of Panama's economy are mentioned here. These examples draw on the International Financial Corporation's private sector expertise in Panama. Comprehensive sector notes can be found in Annex 4.

116. **Improvements in public sector institutions will help both the mining and financial sectors of Panama to maintain or increase their roles as important drivers of growth.** To ensure that the country can take advantage of the existing mining potential, the formulation and adaption of a modern mining regulatory framework is both an opportunity and high priority. Overall, the existing mining legal and regulatory framework has not been updated to incorporate new international standards on effective oversight of mining activity by the relevant government and municipal institutions, subnational royalty sharing schemes, and environmental protection and social responsibility. Even though the financial sector is well regulated, transparency could be enhanced by achieving OECD Global Forum standards, which promote transparency and information exchanges, thus reducing operational costs and ameliorating systemic risk. Transparency and appropriate regulatory frameworks are also critical for Panama to launch itself as a reinsurance hub for Latin America and improvements in the institutional framework are required to develop the domestic capital market and expand the role of the Panamanian Stock Exchange.

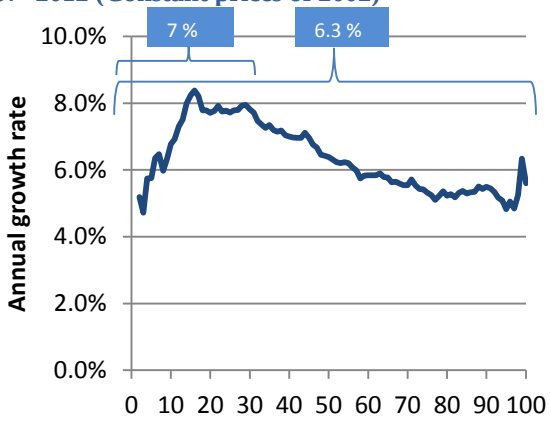
117. **For tourism, and the transport and logistics sector, focusing on the priority areas of education and energy will remove existing barriers to expansion.** The large number of planned activities in the transport and logistics sector will generate new demand for a well-trained labor force that is English-proficient and capable of working in a multi-cultural environment. Tourism is also expected to continue to be a significant driver of growth in Panama; investor confidence remains high given the country's strategic location and stability. The opportunities identified above of updating the curriculum of the International Baccalaureate and introducing bi-lingual education will be critical to meeting the new labor demand of both sectors and improving productivity. The energy sector will need to respond to new demands as well, not simply by generating more power but by providing transmission mechanisms to areas presently under-served. The present saturation

of the hotel market in the capital, for example, means that new investments will more likely take place in remote areas and provinces outside of Panama. The opportunities identified to improve transmission as well as generation of electricity will prevent energy from becoming a barrier to these sectors.

V. Inclusiveness of Panama's Growth

119. **Panama's growth has been inclusive along many dimensions but the geographic and ethnic distribution of growth has not been homogenous.** Growth has been strong, averaging 7.2 percent between 2001 and 2013, and above 8 percent for five of the past seven years despite the crises of 2008-09. The bottom forty percent of the population has benefited more than the average Panamanian from growth. Average income growth among the bottom forty percent of the population was 7 percent compared to 6.3 percent overall (Figure V.1)[41] with the resulting fall in overall poverty from 40 to 26 percent of the population and extreme poverty from 16 to 11 percent (see Chapter II). Yet the geographic distribution of growth has not been homogenous: the poorest areas, being the indigenous territories (*comarcas*), continue to lag behind.

Figure V.1: Annualized Growth Incidence Curve 2007- 2012 (Constant prices of 2002)

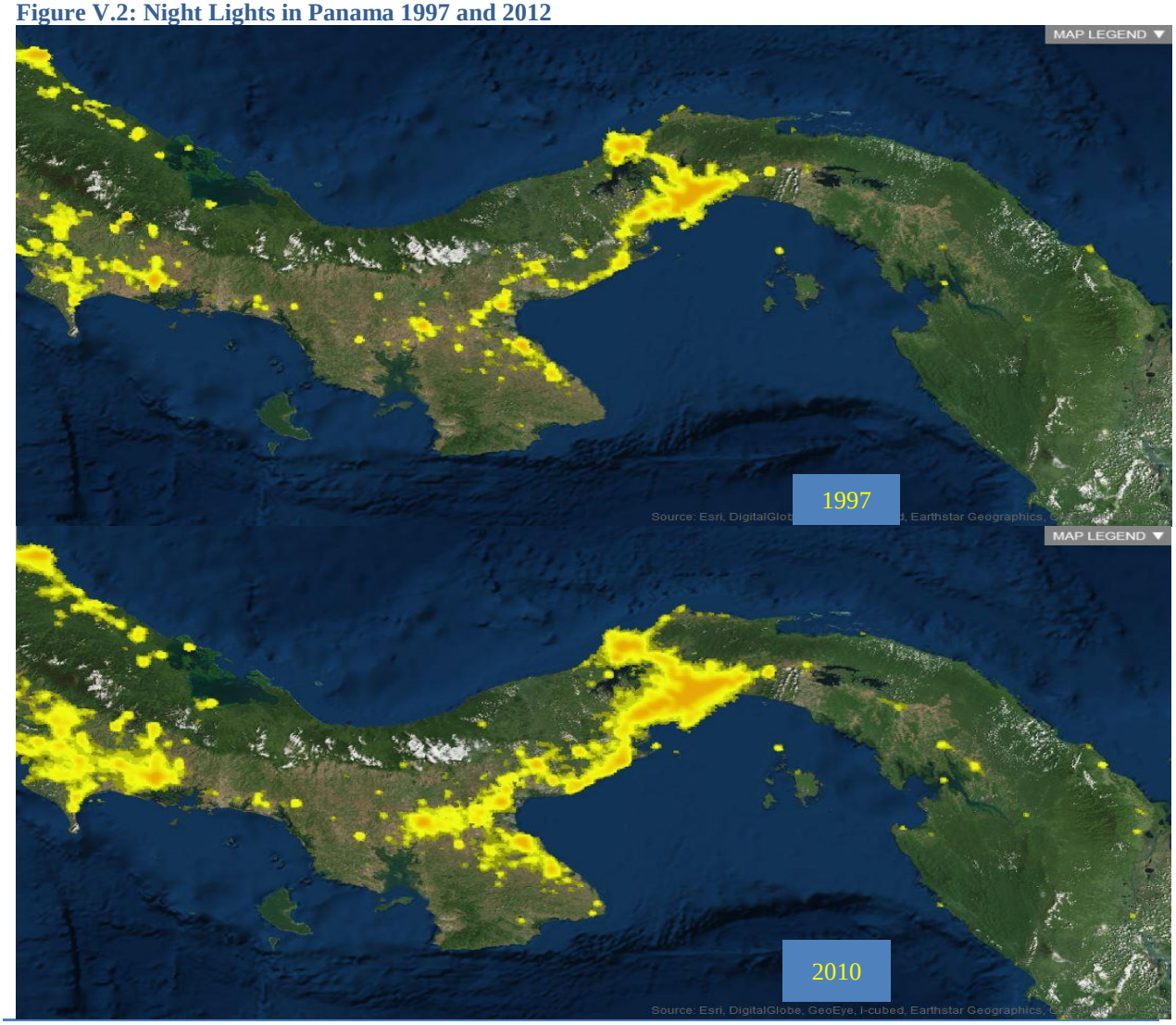


Source: Calculations by authors based on the *Encuesta de Mercado Laboral(EML)*
Note: Numbers in blue boxes represent the average annual growth rate of the full population and the bottom 40 percent.

120. **The change in the view of night lights in Panama between 1997 and 2010 underscores the overall growth performance along with the remaining geographic inequality, inequality linked to ethnicity** (Figure V.2). On the one hand, economic growth around the Canal is clearly visible as is the expansion of growth into the interior in the provinces of Coclé, Los Santos and Chiriquí through the spread of night lights. On the other hand, the continued darkness over substantial sections of the country reflects regions that have either only benefited slightly from economic growth, or were so far behind the others that recent growth has not been enough for them to catch up, or regions where there are disperse populations to which it is hard to provide services (including but not limited to electricity). In particular, the indigenous territories are in areas of the map that have remained without access to electricity.

[41] This chapter uses figures based on Panama's national methodology. These vary from those figures based on harmonized data and methods used for cross-country comparisons.

Figure V.2: Night Lights in Panama 1997 and 2012

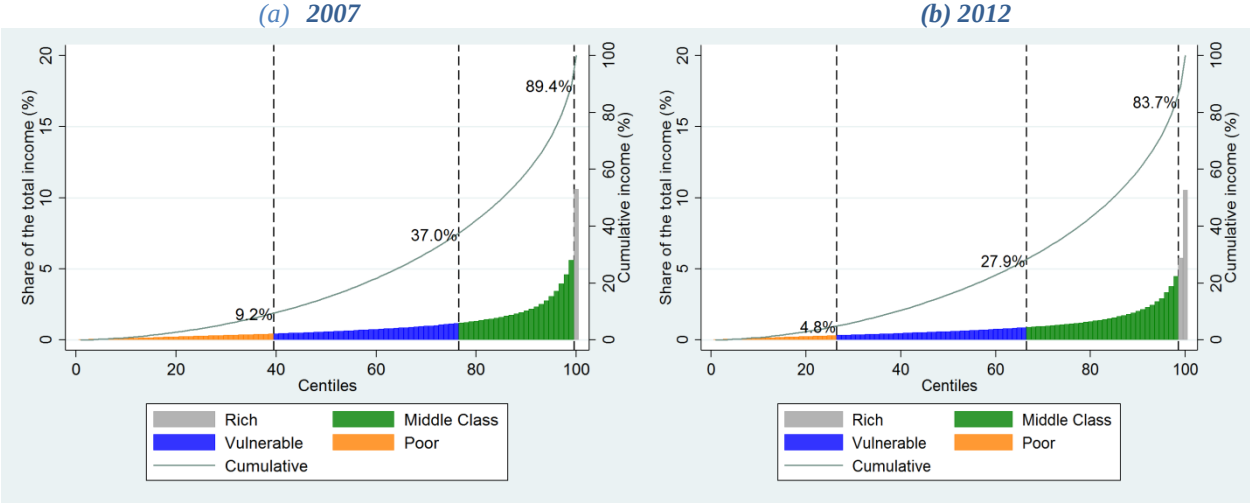


***Source*: Night Lights Data (http://geowb.worldbank.org/portal/apps/OnePane/swipe/index.html?webmap=674a46aa308f43c7bd340fb26cbad811,8a9227075dcf4d3893611310596bbf71)**

POSITIVE TRENDS

121. **Recent economic growth has led to a substantial increase in the size of the middle class.** In 2007, the middle class spanned the 69th to 84th centiles of the population while in 2012, it had expanded to encompass the 57th to 96th centiles of the distribution (Figure V.3). The share of income going to the middle class rose from 52.4 to 55.8 percent during the period (using the definition of middle class as having per capita income of US$10-50 per day). The top earners doubled their population share, from one to two percent and saw their share of total income rise from 10 to 16 percent. The ratio of the share of income of the top 10 percent of the population over the remainder of the population has remained at 2.2 percent from 2007 to 2012.

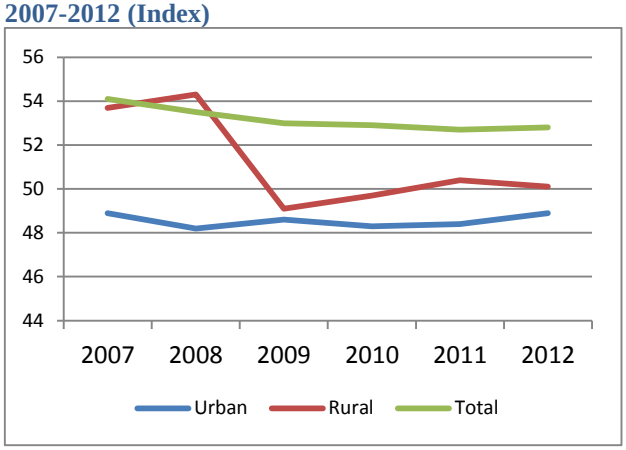
Figure V.3: The Rise of the Middle Class



Source: Authors' calculations based on EML, 2007 and 2012.
Note: Poor is defined as having income below the national poverty line, middle class having incomes of US$10-50 a day per capita with the rich having incomes of more than US$50 per day. In this analysis, the vulnerable are those whose incomes are above the poverty line but below the middle class and thus face a danger of falling back into poverty.

122. **Changes in inequality at the national level, and within urban areas, have been minimal: a one percentage point change over five years** (Figure V.4). In contrast, rural inequality has fallen substantially – four percentage points in five years – although it is still slightly higher than in urban areas. The decline in rural inequality appears to be driven by increased public spending in rural areas that reached the poorest groups along with internal migration: self-selection in migrants lowers the inequalities in their communities of origin (see below for a discussion of internal migration).

Figure V.4: Gini Coefficient by Area 2007-2012 (Index)



Source: Authors' calculations based on EML, 2007-2012

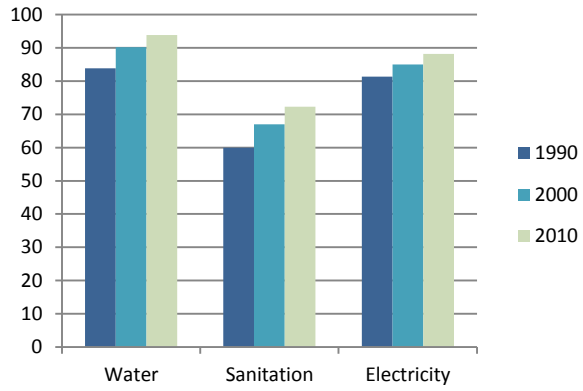
123. **There has also been substantial progress on non-monetary indicators of welfare and access to services**. Life expectancy has risen steadily and the country has met the Millennium Development Goal in terms of child mortality (Table V.1). While not expected to reach the MDG goal on maternal mortality, the last ten years have nonetheless seen some progress on reducing maternal mortality in the country. Malnutrition rates have also declined. Progress has been made in measures of welfare related to service access as well. Enrollment in education has increased at all levels since 1990, with the biggest gains seen at the pre-school and tertiary levels. The average years of schooling of the population has increased by 1.6 years since 1990 and 0.1 years since 2005. Access to running water in a dwelling increased from 84 percent in 2000 to 94 percent in 2010, electricity access rose seven percentage points (a smaller number given the higher starting point) and access to sanitation, while still limited, rose from 60 to 72 percent between 2005 and 2010 (Figure V.5).

Table V. 1: Health Indicators

	1990	2000	2010
Life Expectancy (years)	73	75	77
Child (under 5) mortality*	32	24	19
Maternal Mortality (per 100,000 births)	100	110	92
Births attended by trained health personnel (%)*	86	93	89
Malnutrition (weight for age, 0-5 year olds) (%)*	na	5.1	3.9

Source: WDI and SSEIR

Figure V.5: Percent of the Population with Access to Basic Services, 1990 to 2012

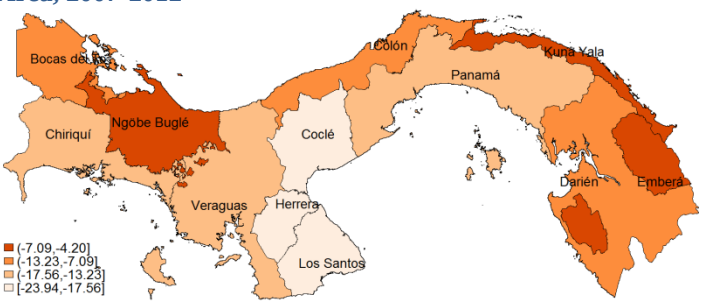


Source: WDI

LIMITATIONS OF GROWTH'S EFFECTS

124. **Despite strong and fairly inclusive growth, differing rates of poverty reduction have led to the poor becoming ever more concentrated in specific geographic locations**. Poverty rates vary tremendously across the country. In 2012, poverty in the poorest province or *comarca* was 93 percent, with 82 percent of the population living in extreme poverty (*Ngäbe Buglé comarca*) (Figure V.7). In contrast, the province of Veraguas had only 15 percent poverty and only 2 percent of the population in Herrera lived in extreme poverty. These differences are both a result of very different starting points in terms of poverty rates and quite different rates of change (Figure V.6). The poorest areas (the *comarcas*) saw poverty fall 4.2 percent between 2007 and 2012. In contrast, Coclé, which began with a substantially lower poverty rate of 56 percent, saw the greatest fall in poverty (24 percent). The net effect of these differential changes in poverty is that while overall the number of extremely poor people in the country fell, the *comarcas* became home to an ever increasing share of them: in 2007, 24 percent of all extremely poor people in Panama lived in the *comarcas*, a figure which rose to 42 percent by 2012 (Figure V.8).

Figure V.6: Changes in Overall Poverty Rates by Geographic Area, 2007-2012



Source: EML 2007 and 2012, Mapa Provincial, 2009 (GADM)

Figure V.7: Poverty Rates by Province and *Comarca*, 2012 (Percent)

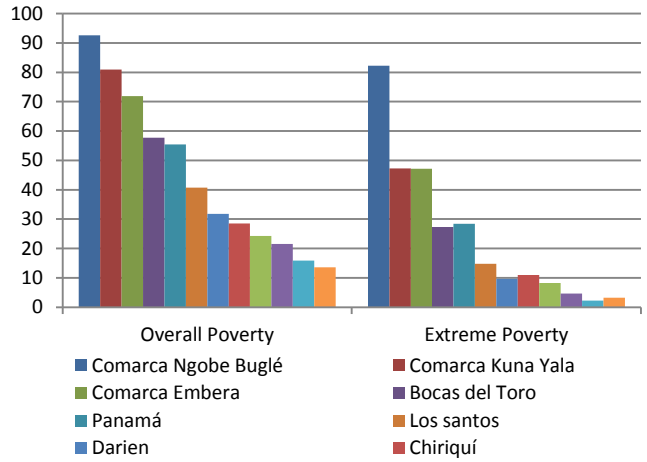
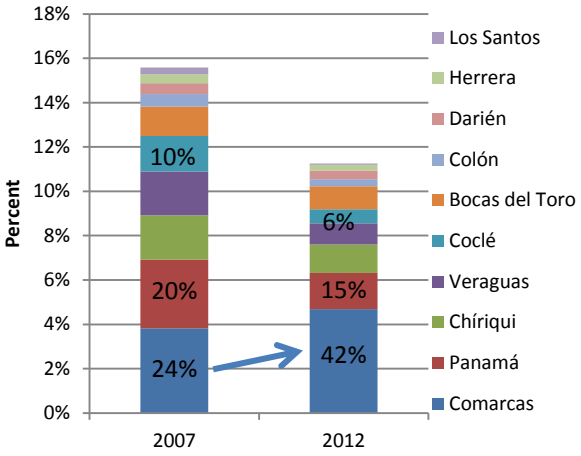


Figure V.8: Changes in Geographic Concentration of the Extreme Poor

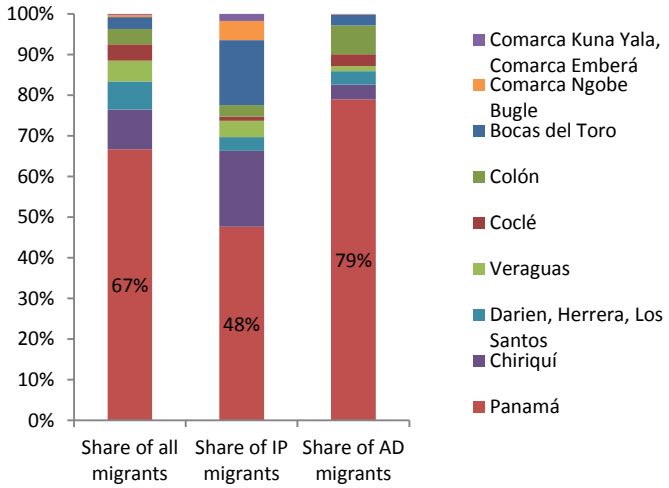


Source: *Encuesta de Mercado Laboral* 2007 and 2012,
Note: Panamá Province has been divided into two separate provinces since 2013. However the data sources are representative only for the full Panama province level.

125. **Internal migration may also play a role in the concentration of poverty as it is both large and there is evidence of self-selection among migrants.** There has been substantial internal migration in recent years: in 2010, one-fifth of the population over 15 lived in a district that was not the same as where it had lived ten years previously. The rates vary little by ethnicity: the Afro-descendants are slightly less prone to migrate (20 percent having migrated), while the indigenous are slightly more likely (22.6 percent) and the migration rate for all other groups was 21.6 percent. Due to data limitations, it is not possible to look at either the total number of migrants (many persons may have migrated and then returned to their previous location in the ten-year reference period) nor trace the full migration patterns.[42] However, the overall picture is one of movement with a tremendous bias towards the Province of Panama: 67 percent of all migrants moved to the Province of Panama. Among the indigenous migrants, 48 percent of moved to this province while compared to 79 percent of Afro-descendants (Figure V.9).

[42] As intermediate moves cannot be seen in the data, it is unknown if rural migrants move directly to large urban areas or make a series of intermediate moves, moving first to small towns or cities and then to larger ones.

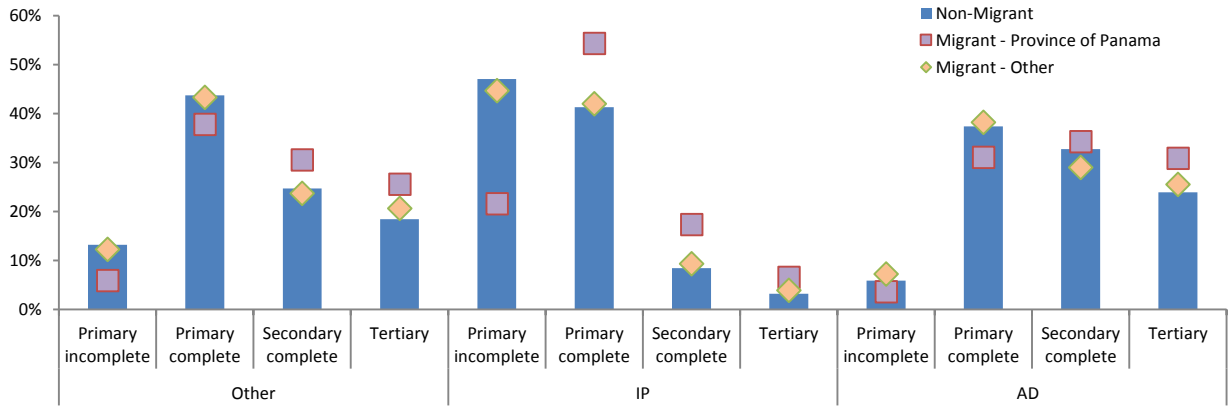
Figure V.9:Destination of Internal Migrants between 2000 and 2010 (Percent)



Source: Authors' calculations based on 2010 Population and Housing Census.
Note: For population 15 and older.

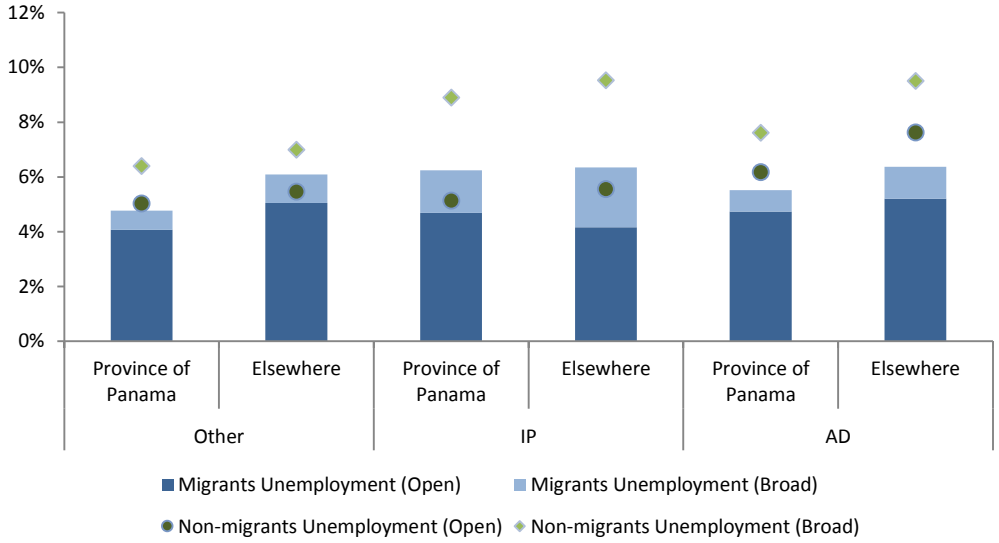
126. **Internal migrants to the Province of Panama show evidence of being positively self-selected: education levels of those migrants are higher than those of non-migrants** (Figure V.10). The difference in education between migrants and non-migrants is especially pronounced among the indigenous population: while 47 percent of the non-migrant indigenous adult population has not finished primary school, only 22 percent of those indigenous migrants to the Province of Panama fell into this category. Among the Afro-descendants and other Panamanian populations, migrants are more likely to have completed secondary or tertiary school than non-migrants, while those who did not finish secondary school are less likely to have migrated. This pattern of positive self-selection does not hold for migrants to other parts of the country, perhaps reflecting the greater range of employment offerings for lower-skilled workers. Further evidence of self-selection comes from the fact that migrants are less likely to be unemployed than non-migrants (Figure V.11). However, this is probably also driven by return migration, unsuccessful migrants being more likely to return to their place of origin**.**

Figure V.10: Educational Attainment of Internal Migrants, 2010 (By Ethnicity, percent)



Source: Authors' calculations based on 2010 Population and Housing Census. For population 15 and older.

Figure V.11: Unemployment Rates (Open and Broad), by Migration Status and Ethnicity, 2010 (Percent)



Source: Authors' calculations based on 2010 Population and Housing Census. For population 15 and older.
Note: IP= Indigenous Peoples, AD=Afro-descendants, Other=All other ethnic groups. Unemployment (open) refers to those who report being unemployed and actively searching for work; Unemployed (Broad) includes those actively searching as well as "discouraged workers", those who would like to work but have given up searching.

127. **There remain wide disparities among various groups and areas in the country** (Figure V.12). Geographic differences are large with the poor under-represented in urban areas relative to the population of cities, and over-represented in rural areas and the *comarcas*. In absolute terms, however, urban and rural areas have similar numbers of poor people at around 40 percent of the total. The remaining 21 percent of the poor live in the three largest *comarcas*. While there are greater numbers of poor people in urban areas than in the *comarcas*, the urban poor are better off than their poor counterparts in the *comarcas*. Among the urban poor, monthly incomes are twice as high, the years of schooling of the head of household are more than double, a greater share of household members are of working age and their school-age children are more likely to be enrolled in school than those in the poor households in the *comarcas*. And the discrepancies are greater among the extreme poor: the population living in the *comarcas* is worse off than other extremely poor persons in the rest of the country (Figure V.13). Forty-two percent of the extremely poor live in *comarcas*, despite that fact that only six percent of the total population lives there. The extremely poor in rural areas are somewhere in between the *comarcas* and the urban extremely poor on most indicators but actually have the highest income per capita per day (at US$1.7 compared to US$1.3 in the *comarcas* and US$1.5 in urban areas).

128. **Differences by ethnicity are also marked**. Ideally, the data should allow a comparison among the indigenous population living in the *comarcas*, the indigenous population living outside the *comarcas*, the Afro-descendant population and the rest of the population. However, as discussed in Box II.1, the data limitations preclude the calculations of comparable poverty rates of the full indigenous population or that of the Afro-descendants. The only data source that allows a comparison to be made of these two groups, indigenous outside of *comarcas* and Afro-

descendants, is the decennial National Population and Housing Census. The Census provides data on several indicators that can serve as proxies for welfare.

Figure V.12: Characteristics of the Poor, by Geographic Area

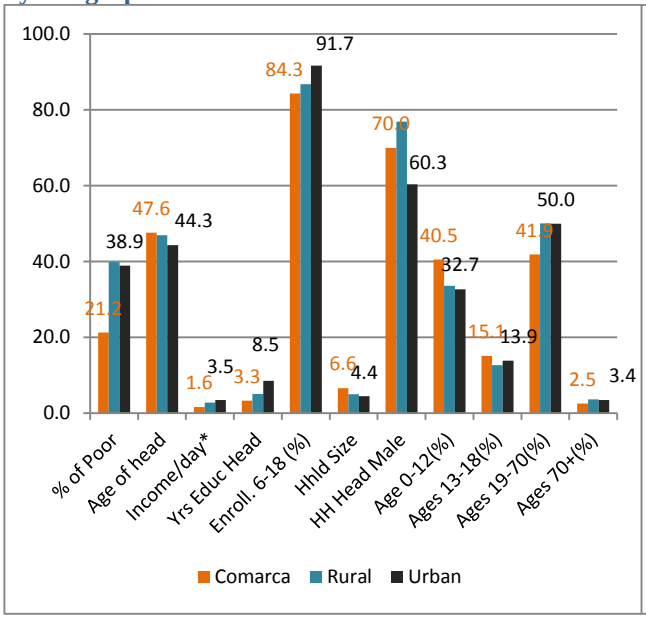
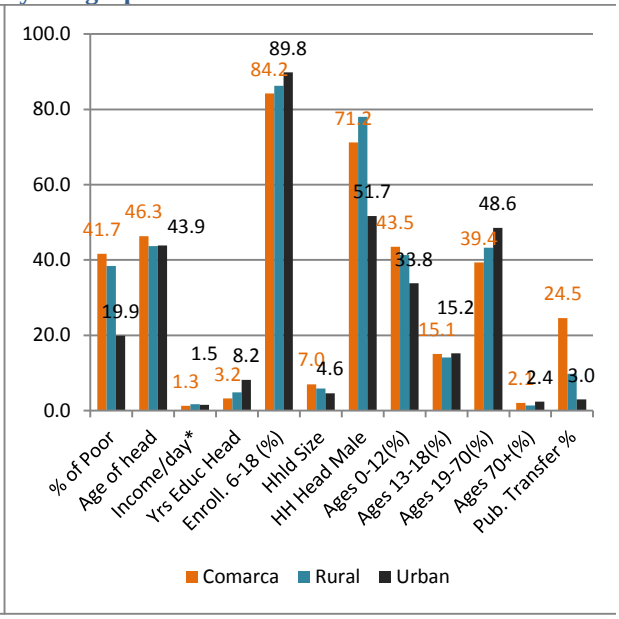


Figure V.13: Characteristics of the Extreme Poor, by Geographic Area



Source: Authors' calculations based on EML, 2007-2012

129. **The indigenous population that lives outside of the five *comarcas* appears to be better off than their counterparts living in *comarcas*** (Table V.2).[43] Those living outside the *comarcas* have much greater access to services and their incomes are more than three times as high. They are also more educated although their children have the same enrollment rate as those in the *comarcas*. Households tend to be smaller, with more working age members and more male-headed households – further evidence of selectivity in migration. Despite the fact that indigenous people living outside the *comarcas* appear to be doing better in terms of basic indicators, they still lag behind their non-indigenous counterparts on all indicators.

130. **In contrast, Afro-descendants, for the indicators for which data exist, appear to be slightly better off than the population at large** (Table V.2). On average, their access to services is higher, reflecting in part that many live in the urban areas of Colon and Panama City. Income levels are also higher as are education levels and school enrollment. However, none of the indicators related to services reflects the quality of these and there are legitimate concerns about service quality in Colon and parts of Panama City. Moreover, there is a concern that, for reasons of stigma, only the better off and more empowered members of the group will self-identify as Afro-descendant, which would lead to an over-estimation of welfare among Afro-descendants.[44]

[43] Using the census data allows for an analysis of all five *comarcas*, not just the three largest represented in the household survey (EML). However, approximately three percent of the indigenous population in Panama lives in territories that have not been given the legal status of *comarca*. These are considered to live in non-*comarca* areas for the purpose of the present analysis.

[44] We are indebted to members of the civil society consultation group around Afro-descendant issues for this insight.

However, with the available quantitative data, the Afro-descendant population does not appear to be at a particular disadvantage.[45]

Table V.2: Basic Characteristics of the Population by Ethnicity, 2010

	Indigenous in *Comarcas*	Indigenous outside *Comarcas*	Afro-descendants	All others
Share of national population (%)	5.7	6.3	8.8	79.2
Income levels				
Income Per Capita Per Day (2010 USD)	1.3	4.8	13.2	11.9
Dwelling characteristics				
Access to electricity (%)	5.9	60.5	96.7	89.6
Access to water (%)	44.8	80.1	96.8	95.4
Flushing Toilet (%)	0.9	34.5	81.4	64.6
Household Demographics				
Age of head	45.3	41.4	47.7	48.0
Proportion age 0-12(%)	39.3	30.2	17.0	17.7
Proportion age 13-18(%)	12.8	12.3	8.0	8.4
Proportion age 19-70(%)	44.3	55.1	68.6	66.8
Proportion age 70+(%)	3.7	2.4	6.4	7.2
Household Characteristics				
Education of head (years)	3.5	5.9	10.9	9.5
Enrollment 6-18 yr olds (%)	82.8	82.9	93.0	91.5
Household size	6.0	5.4	3.4	3.5
Male headed HH	68.4	80.8	66.9	71.2

Source: Population and Housing Census, 2010.
Note: Less than two percent of the Afro-descendants also self-identify as Indigenous. For purposes of this analysis these people were considered Afro-descendants

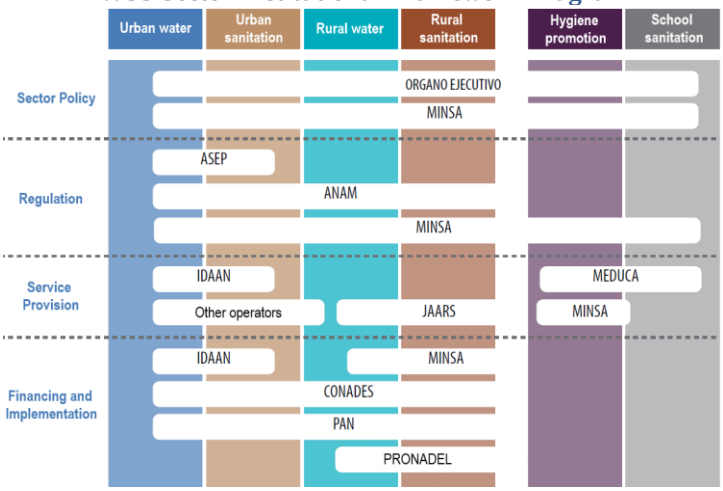
131. **Economic growth has translated into improved access to services, but despite evidence of convergence, sharp differences remain; growth has not been enough to fill the gaps**. Between 2000 and 2010, education levels (enrollment rates) have risen fastest in the provinces or *comarcas* with the lowest initial levels and in the areas with the biggest gap between males and females; notably, female enrollments have climbed more quickly than those of men. The convergence appears similar in terms of access to water with rates of change higher in the areas that started with lowest coverage (Figure V.16). Colon is an outlier here, showing a high rate of change. In terms of sanitation (sewer connections), the story is similar for all of the country except the three *comarcas*: these areas are almost completely excluded from access to sanitation (Figure V.17). Institutional factors affect the provision of public services in water and sanitation (see Box V.1).

[45] See Chapter VI below for a discussion of other issues related to Afro-descendants that these data cannot address.

Box V.1: How Institutional Challenges Affect Service Delivery in the WSS Sector

Three main actors are responsible for policy setting, service provision and regulation: (i) Ministry of Health through the Directorate of Water and Sanitation (DISAPAS), responsible for sector policy, coordination and long term planning, as well as smaller towns and rural areas, (ii) the National Water and Sewerage Institute (IDAAN), responsible for urban areas and rural communities with over 1,500 inhabitants, and (iii) the National Authority for Public Services (ASEP) which supervises and regulates service provision in urban areas. Multiple other actors play a role in the sector, including ANAM for water quality standards, ACP for selling bulk water to IDAAN and the Ministry of the Presidency for high priority Water Supply and Sanitation (WSS) service infrastructure.

WSS Sector Institutional Framework Diagram



Source: Adapted from the Monitoring Country Progress in Water Supply and Sanitation (MAPAS) Report (2013)

On the organizational side, unclear roles of the different agencies do not facilitate effective regulation and having multiple implementing agencies for infrastructure provision impedes coordination. Specialized rural water boards do not receive appropriate technical support to allow them to run their small systems with adequate cost recovery to ensure sustainability. **Sector policy setting** remains disjointed, with DISAPSAS not able to exercise its full mandate in strategic planning and oversight. This is due to other agencies executing infrastructure investments in parallel, with no single investment plan for the sector, leading to overlaps and the lack of a coherent vision. Finally, **the regulatory function** of the sector is clearly lacking, compared to other sectors in Panama, such as electricity and telecommunications.[46] Water tariffs applied by IDAAN are very low and have not been revised since 1982 which means that if adjusted for inflations, tariffs have actually decreased by around 50 percent since then. With a flat rate for high minimum consumption, even in metered areas, the tariff structure does not encourage water conservation, resulting in a significant gap in both operations and maintenance as well as investment needs, making IDAAN highly dependent on budget transfers. This state is further exacerbated by high levels of non-revenue water (54 percent in the City of Colon) and high staffing levels (5.3 per thousand water connections) that often lack the technical capacity for effective service provision and management.

[46] In 2014, ASEP drafted only 371 resolutions for the WSS sector, compared to 5578 and 7834 for the electricity and telecommunications sectors respectively. Http://www.asep.gob.pa/

Figure V.14: Change in Access to Piped Water in the Dwelling, 2000-2010

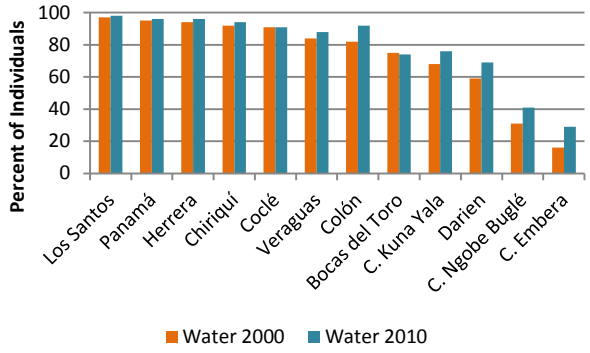
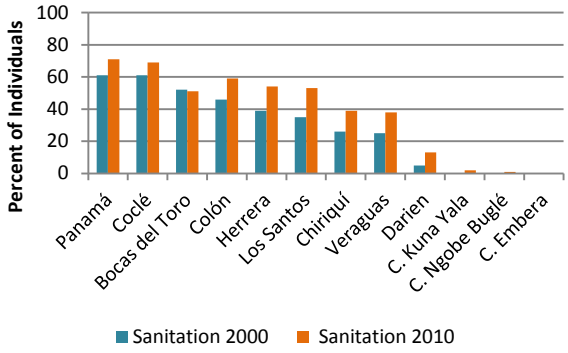


Figure V.15: Change in Access to Sewage Connection in the Dwelling, 2000-2010



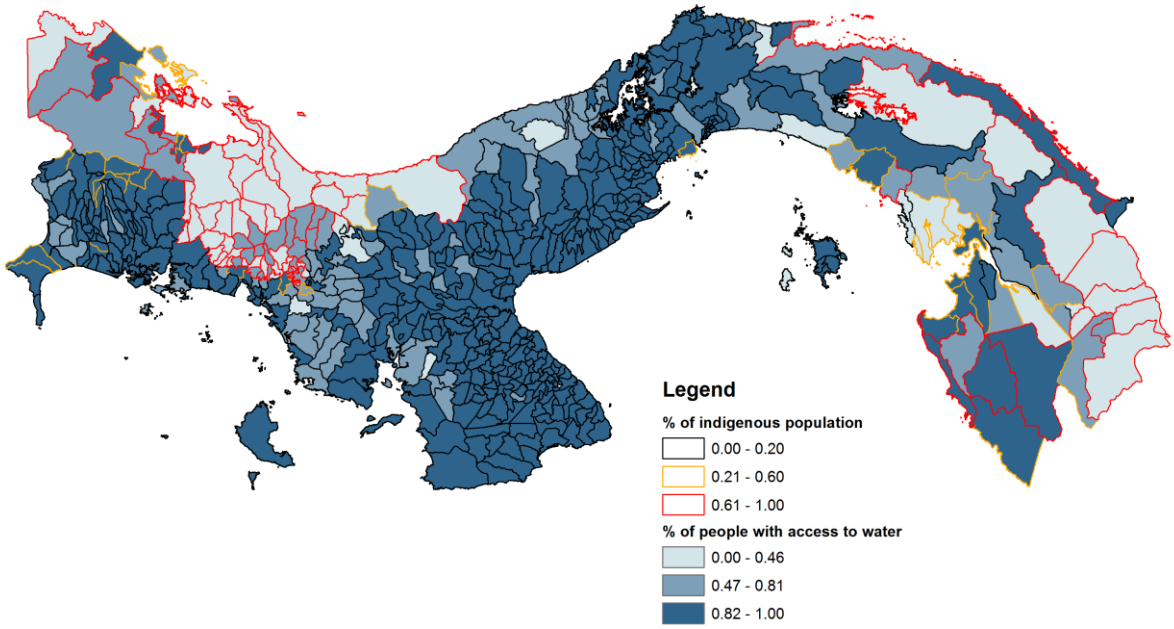
Source: Authors' calculations based on Panama 2000 and 2010 Population and Housing Censuses

132. **There is a striking correlation between living in a *comarca* and having little or no access to water, sanitation or even electricity.** Figure V.18 shows this for running water in the dwelling, with the only exception being Guna Yala. In part, this reflects the rural nature of the *comarcas* and the relatively dispersed populations that live there. However, other rural areas have better services: in 2008, a child in a *comarca* had a 35 percent probability of having access to electricity compared to an 81 percent probability of an average rural child having electricity, while for sewerage connections, the numbers were 10 percent and 35 percent[47]. In short, the low coverage-*comarca* link is strong. Interestingly, the other ethnic minority in the country, the Afro-descendants, do not appear to be as constrained in terms of services, probably as they are more likely to live in urban areas.

133. **The disparities in access to services are reflected in the very different social outcomes observed across the population.** In 2013, life expectancy in the *comarcas* was estimated to be between 7 and 9 years lower than in the rest of the country: 66.2 years in the *comarca* of Emberá in 2007 (66.9 years in 2009), and 68 and 68.6 respectively in those two years in the *comarca* of Ngäbe Buglé.[48] In 2008, the last year when national data were available, malnutrition in the Ngäbe Buglé *comarca* was almost six times higher than in urban areas[49] and under five mortality was almost twice the national average in 2012.[50] At just under 45 percent, teenage pregnancy rates in the Emberá *comarca* are almost three times the national average of 15 percent and similar to those of Ethiopia.[51] Bocas del Toro also shows poor health indicators and high drop-out rates. The burden of related diarrheal illness in children falls disproportionately on rural and, especially, indigenous households and is estimated to cause 130 premature deaths and 1 million cases of diarrhea in children under five each year. In addition, fuel wood burning in rural indigenous households is the primary culprit for acute respiratory illnesses, with an estimated economic cost of 0.2 percent of GDP. Finally, children in *comarcas* are more likely to drop out of school than either their rural or urban counterparts: at age 18, only 39 percent of children in the *comarcas* are in school compared to 47 percent in rural areas and 69 percent in urban ones.

[47] World Bank, 2011a.
[48] PAHO, 2013.
[49] World Bank, 2012.
[50] WDI and WB Panama Results Story Brief.
[51] Population and Housing Census 2010 and WDI.

Figure V.16: Access to Running Water in the Dwelling by Concentrations of Indigenous Peoples



Source: Authors' calculations based on the Population and Housing Census of Panama 2010.

DRIVERS OF POVERTY REDUCTION

134. **The positive effects of economic growth on poverty reduction came through a combination of increased labor income and a strong program of public transfers (**Figure V.17 and Figure V.18). Sources of income that mattered for poverty reduction varied across the country and by type of poverty. Labor income was the key driver of overall poverty reduction in urban areas and the *comarcas*. In contrast, government transfers played the biggest role in poverty reduction in rural areas. For extreme poverty reduction, labor income was only important in urban areas: in rural areas and the *comarcas*, labor income changes would have increased poverty in the absence of government transfers.

Figure V.17: Contribution of Different Income Sources to Changes in Overall Poverty, 2007-2012

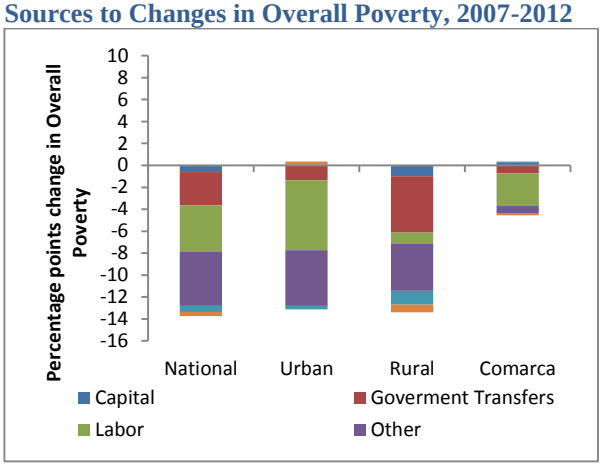
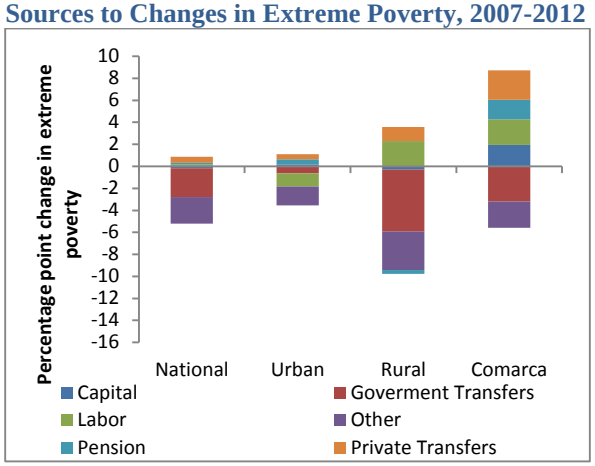


Figure V.18: Contribution of Different Income Sources to Changes in Extreme Poverty, 2007-2012



Source: Authors' calculations based on the EML, 2007-2012.
Note: Other incomes include imputed rent, private scholarships and other sources not included in existing categories.

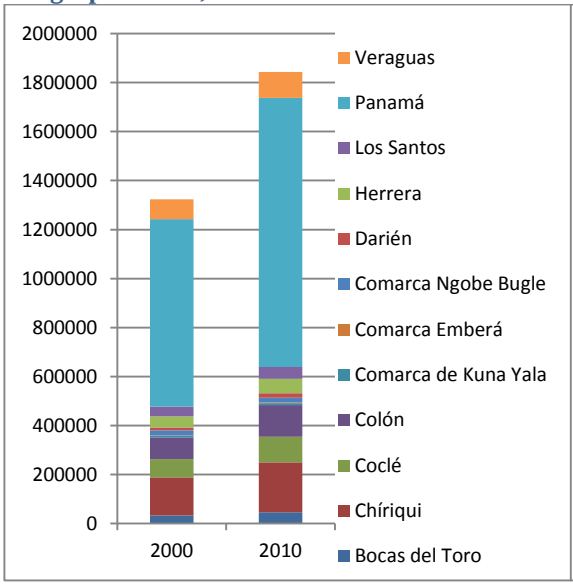
Labor Income

135. **The differential effect of labor income on poverty reduction is due both to the geographic distribution of job growth and the quality of those jobs.** The patterns of economic growth are seen both in the number and types of jobs that have been created in the past ten years**.** As described in Chapter III above, job growth in Panama has been substantial in recent years. However, this has benefited different regions disproportionately. Census data from 2000 and 2010[52] show that the bulk of these new jobs have been in the Province of Panama (Figure V.19). Nonetheless, the *comarca* Emberá has seen the sharpest job growth, up 58 percent compared to 43 percent in Panama (and 49 percent in next fastest growth province, Darien). In contrast to the growth in jobs in the *comarca* Emberá, the *comarca* Ngäbe Buglé saw a net loss of jobs while Guna Yala saw an increase of only 17 percent.

136. **The quality of the jobs created also differs by region of the country** (Figure V.20). The areas with the lowest poverty reduction, the *comarcas*, were largely those with low net job growth. In the *comarca* Emberá, where job growth was strikingly high, the majority of these jobs were in agriculture, typically a low productivity sector in Panama. In fact, almost half of the new jobs generated in the *comarca* Emberá required only a primary education or less. In contrast, for Coclé, Herrera and Los Santos, the provinces with the greatest poverty reduction between 2007 and 2012, job growth was much higher (ranging from 26 to 41 percent) and most jobs created in these provinces were those that required either completed secondary schooling or tertiary studies: 84 percent in Herrarra, 93 percent in Los Santos and 73 percent in Coclé.

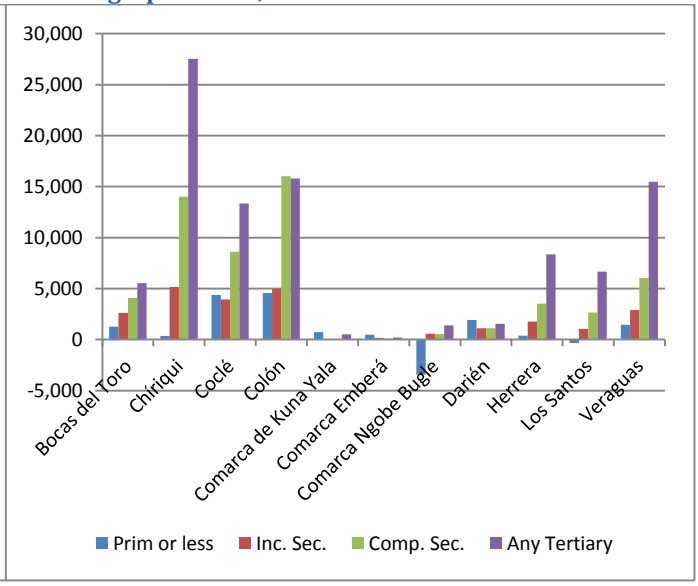
[52] The Census data are less up to date than the *Encuesta del Mercado Laboral*, but have the advantage of allowing the analysis to be done for a longer time period and to be done for the three *comarcas* separately.

Figure V.19: Net Number of Jobs Created by Geographic Area, 2000 to 2010



Source: Authors' calculations based on the Population and Housing Census of Panama 2000 and 2010.

Figure V.20: Net Number of New Jobs by Education Level and Geographic Area, 2000 to 2010



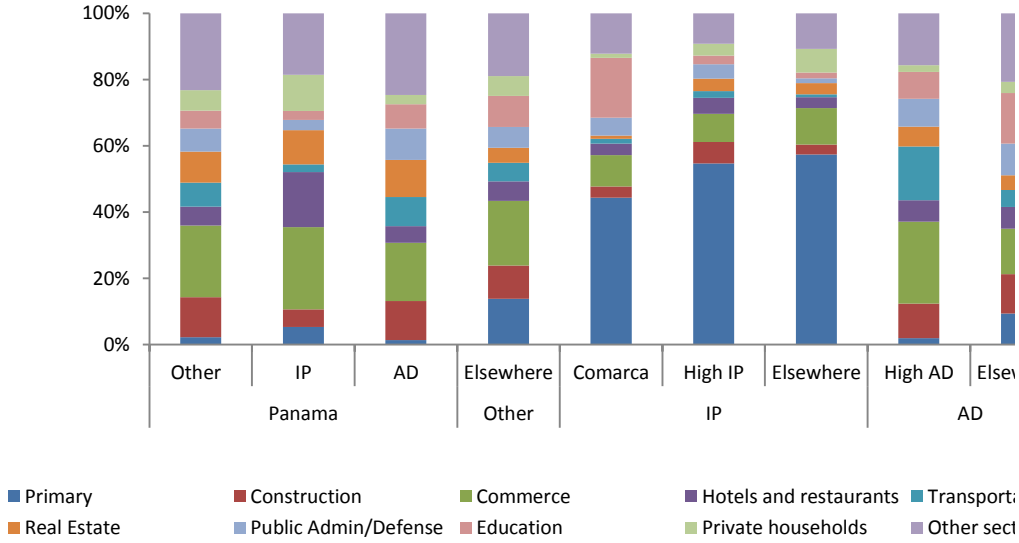
Source: Authors' calculations based on the Population and Housing Census of Panama 2000 and 2010.
Note: the Province of Panama is omitted due to scale issues.

137. **The net result is continued low levels of income diversification among the indigenous populations in the *comarcas***. Despite a decline, agriculture still provides two-thirds of labor income in the *comarcas* compared to only 44 percent in other rural areas, a dependence that affects welfare gains. Agriculture is a sector that is shedding jobs and represents a small share of GDP and, moreover, agriculture productivity[53] is neither growing nor is it even as high as Latin American averages. Why agriculture has lagged behind is unclear. Given that returns to other sectors in Panama are higher, there is probably underinvestment in agriculture. This reliance on agriculture is also a result of the populations in the *comarcas* being physically distant from the growth corridors of the country and lacking other skills, which may act as a further barrier to obtaining jobs in other sectors.

138. **Internal migration is linked to the uneven growth of jobs in Panama and migration leads to greater income diversification.**[54] The sector of employment among migrants is largely determined by destination, not ethnicity (Figure V.21). Between 18 and 25 percent of migrants who migrated to the Province of Panama worked in commerce, regardless of ethnicity. However, working in hotels, restaurants and private households was more common among indigenous migrants, who have lower educational attainment than the other two groups. Construction work is also under-represented among indigenous migrants raising questions about barriers to entry. Those among the indigenous who migrate outside of the Province of Panama are more likely to work in agriculture: the sector accounts for more than half of migrant employment outside of the *comarcas* and the Province of Panama.

[53] Productivity here is defined as total GDP of the sector divided by number of jobs in the sector.
[54] Growth can create the incentives for migration but, at the same time, migration can create a labor pool that can facilitate growth. Given the data limitations, no attempt is made here to determine causality. The self-selection discussed above could also be linked to employment diversification.

Figure V.21: Sector of Employment in 2010, Migrants by Ethnicity and Destination (percent)



Source: Authors' calculations based on 2010 Population and Housing Census. For population 15 and older.

139. **Overall, women have benefited from the growing job market.**[55] The rate of growth of jobs for women has outpaced that for men; 25.6 percent compared to 15.4 percent respectively between 2007 and 2012.[56] Female labor force participation rose five percentage points between 2000 and 2012 to reach 53 percent. Unemployment rates for women fell dramatically as well; falling from 18 to five percent in five years between 2007 and 2012 with the 2012 rate just one percentage point higher than that of men. The quality of jobs for women also improved; in 2000 59 percent of all jobs held by women required complete secondary education or higher, by 2010 this had risen to 69 percent. The share of male jobs requiring these levels of education was just 45 percent in 2010.[57] Female employment in the informal sector remained lower than men (27 percent compared to 31 percent respectively) although men are catching up to women on this indicator. The gender income gap in Panama was the lowest in Latin America in 2010 at 0.90. However, of concern, are the continued occupational segregation of jobs and relatively low labor force participation rates of women; the LAC average is five percentage points higher than that of Panama.

Public Transfers

140. **Government spending has played a significant role in reducing extreme poverty and overall poverty in rural areas. Overall spending in the social sectors is similar to that of Panama's neighbors: 13.3 percent in Panama compared to 13.7 percent in Central America.** A series of programs and benefits have been introduced in the past few years. *Red de Oportunidades*, the conditional cash transfer program begun in 2003, is the largest. The program

[55] Unless otherwise mentioned, this section on labor markets and women is based on World Bank, 2014d.
[56] Favaro, 2014.
[57] The data on quality of jobs (education and formality) are from the 2000 and 2010 Population and Housing Census.

consists of four components: (i) conditional cash transfers to beneficiaries contingent on enrollment of children in school and the use of preventative health care services; (ii) provision of the health and education services required by beneficiaries; (iii) support to families in accessing such services; and (iv) infrastructure improvement. The cash transfer is designed to mitigate poverty today and, by increasing human capital, poverty in the future. The *100 a los 70* non-contributory pension program provides a pension to all elderly persons with no other pension. In 2014, this was modified to provide US$120 to all persons 65 and older. Finally, the *Beca Universal*, or universal education benefit, provides cash transfers to family to encourage school attendance. The benefit is given contingent on a student attending school for a given number of days and maintaining a minimum grade level. The program started as an effort to lower secondary school drop-out rates but has since been expanded to primary school as well.

141. **The impact of the *Red de Oportunidades* has been positive.** A quantitative analysis of the program[58] found important effects. For rural children ages 12-15, the program led to a 10.2 percentage point increase in school enrollment and a similar (10.1) decrease in child labor. In the *comarcas*, the increase in school enrollment was a bit lower at 7.9 percentage points, but the decrease in child labor greater (15.8 percentage points). The health benefits were not as large across the board but improved in some areas: incidence of Papanicolau test rose almost 12 and 15 points among rural and indigenous women respectively. A qualitative analysis of the program[59] highlighted the overall positive perceptions of the program and identified some areas for improvement. Beneficiaries noted not just the economic benefit and access to services but also an increased sense of social inclusion and female empowerment. Children's access to schooling has improved. In terms of health, awareness regarding preventative reproductive health increased. The report found that the program has had the unexpected positive results of strengthening social capital and spawning initiatives for group savings and microenterprises. Highlighting this, beneficiaries suggested the introduction of stages into the program with productive entrepreneurship as a final stage.

142. **The benefits of *Red de Oportunidades* have been limited by a lack of differential services for the various ethnic groups in the country**. The qualitative study emphasizes the need for adaptation of service provision to the environment. There continue to be issues in access and educational quality, as well as the need for multicultural bilingual education in indigenous areas. Program beneficiaries also expressed the need for culturally appropriate health services and health workers with specific skills to work in different cultural contexts. The program has had less success in affecting malnutrition as well. There have also been concerns raised about implementation, with cultural sensitivities not being addressed and inappropriate conditions being applied.

143. **The non-contributory pension program has the potential to lower poverty among the elderly although it has not yet completely delivered on its promise.** While no formal evaluation of the program exists, simulations of first order effects using pre-program data (2009) show that a universal assignment of 100 balboas to all people 70 and older could cause poverty among the older population to be more than halved and extreme poverty to almost disappear.[60] The differences in overall poverty reduction for men and women is fairly similar, although for extreme

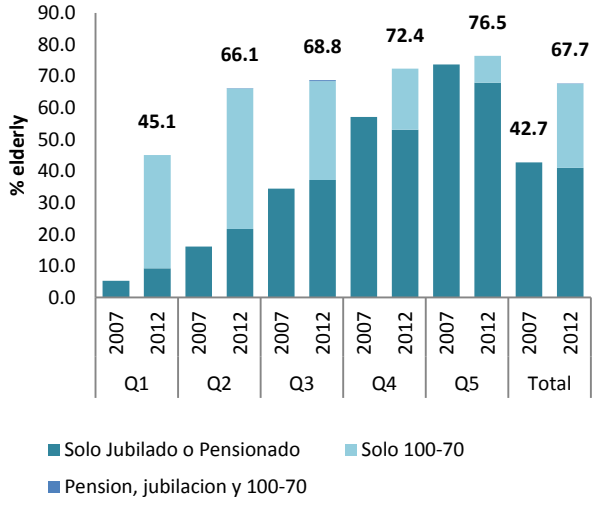
[58] Arráiz and Rozo, 2011.
[59] Waters, 2009.
[60] Cardoza and Scott, 2013.

poverty, the benefit would lower poverty among men less, suggesting that elderly men suffer from more severe poverty than women. By 2013, however, only 30 percent of all elderly were enrolled in the program, thus reducing its impact on poverty. Nonetheless, it is clear that the program is benefiting the poor elderly (Figure V.24). The expansion of the program to 65 and older and the increase in the benefit will also have an important poverty reduction effect among the older population. If the program is to have this effect, however, issues affecting program take-up will need to be understood and addressed.

144. **The effects of the universal scholarship, *Beca Universal*, also have not been evaluated.** The expansion of the program from secondary to all students has made it more progressive. It is likely that the program has helped lower poverty in addition to increasing enrollment and retention rates. Simulations of its effects on poverty using data from before the program show a strong effect in indigenous areas. More recent, anecdotal evidence from the Ministry of Education suggests that for the Ngäbe Buglé, the benefit has reduced the seasonal migration around the coffee harvest, allowing children to remain in school.

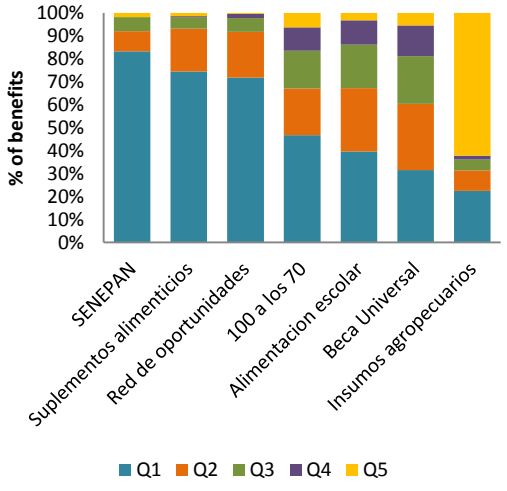
145. **Despite the significant impact of public transfers on extreme poverty, there are still challenges related to both targeting and the take-up of programs.** As noted previously, less than half of those eligible for the non-contributory pension actually received it in 2012 and lack of cultural adaptation may be affecting the take-up of *Red de Oportunidades*. Additionally, 18 percent of the population in the bottom quintile receives no social assistance of any sort. Nor does all spending benefit the poor (Figure V.25). There are costly leakages with 31 percent of spending of the top seven social programs going to the top 60 percent of the population. This leakage of benefits to the richer end of the distribution is also mirrored in some of the Government's subsidy programs. Cooking gas subsidies, for example, represented US$82 million in 2010 dollars and increased government spending by 2.1 percent, yet the subsidy barely reaches the poorest: three in four extremely poor cook with wood.

Figure V.22: Contributory and Non-contributory Pension Coverage, 2007 and 2012



Source: SSEIR, World Bank, 2014.

Figure V.23: Distribution of Benefits (Leakage), 2012



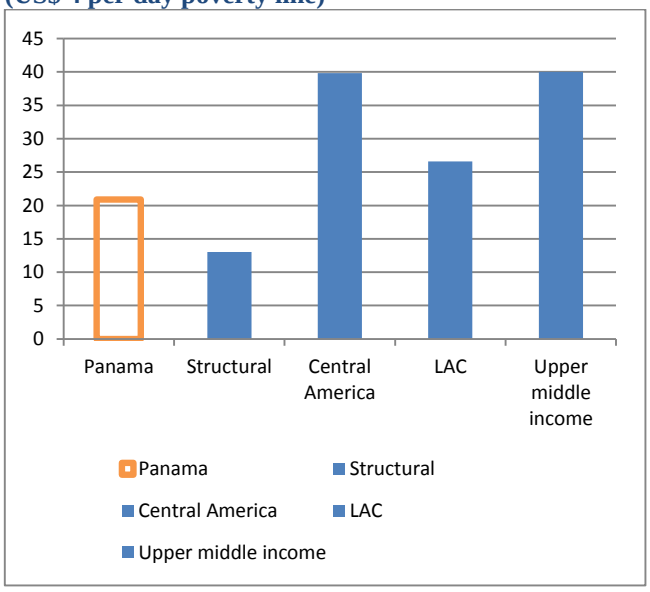
Source: SSEIR, World Bank, 2014.

VI. Prioritization Linked to Inclusion

BENCHMARKING

146. **The strong economic growth in recent years has been inclusive, yet it had different effects across regions and populations with some benefiting significantly less.** On the positive side, incomes of all groups rose, with those at the lower end and the middle of the income distribution increasing the most. Economic growth also translated into the expansion of services and access to education and health. Poverty fell and social outcomes improved. Overall, Panama's poverty rate places it ahead of most of its peers (Figure VI.1). However, the analysis in the previous chapter has shown that even in an environment of strong growth pre-existing income and opportunity gaps in the country have persisted. Moreover, it is unclear that the present growth model will be adequate to eradicate extreme poverty in the near future.

Figure VI.1: Panama's Poverty Rate Compared to Peers (US$ 4 per day poverty line)



Source: WBI.

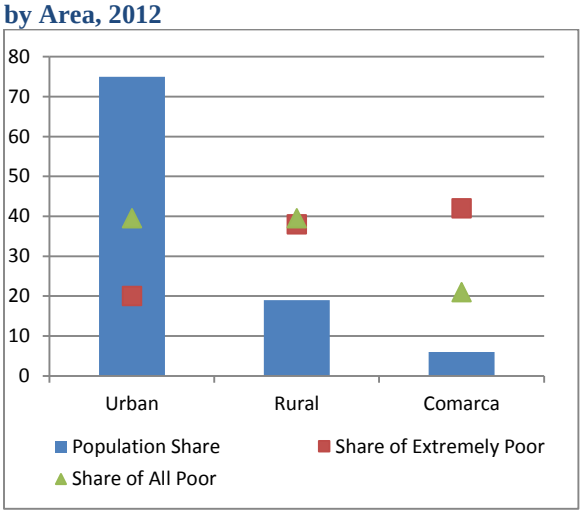
Within Panama

147. **Comparing different population groups reveals a continuum of states of poverty even within the groups of poor and extremely poor Panamanians.** Using household survey data, comparisons of income poverty, human capital and household characteristics were made for the populations living in urban and rural areas and the *comarcas*. The results of the comparison are clear (see Figures V.12 and V.13 in the previous chapter). Among the poor and extremely poor in Panama, the groups with the least human capital, lowest incomes and greatest dependence on social assistance are the indigenous population living in the *comarcas*. Using the census data, comparisons were made by ethnic groups: indigenous people living in *comarcas*, indigenous people living outside of the *comarcas*, Afro-descendants and all others in the country. The census does not provide a comparable measure of income poverty but does have information on human

capital, income, and demographic and household characteristics linked to welfare. Again the results of the comparison (see Table V.2 in the previous chapter) show a clear welfare hierarchy: among the poor and the extremely poor, it is the indigenous living in the *comarcas* that have the lowest levels of income, human capital and show the highest dependency ratios.

148. **High economic growth benefited some groups less, particularly the indigenous population**. Overall poverty reduction in the past five years has been on the order of 34 percent (28 percent for extreme poverty). The *comarcas* have also experienced a lower level of poverty reduction than the rest of the country. Urban areas saw extreme poverty fall 40 percent between 2007 and 2012. Extreme poverty in rural areas only fell by 15 percent, less but still a respectable reduction. In contrast, the *comarcas* only experienced a 4 percent decline in extreme poverty in the same period. This means that share of the extreme poor by area is even more disproportionate to the area's population share than before. Urban areas represent 75 percent of the national population, but only 20 percent of the extremely poor live in urban areas. The *comarcas*, however, where only 6 percent of the population live, concentrate 42 percent of the extreme poor (Figure VI.2). This concentration has increased markedly in the 2007-2012 period: up from 24 percent to 42 percent (see Figure V.8). This pattern also applies to overall poverty.

Figure VI.2: Share of Population and Extremely Poor by Area, 2012



Source: Authors' calculations based on EML, 2012.

Across Latin America

149. **In addition to exhibiting the most severe poverty in Panama, the indigenous peoples living in *comarcas* in Panama fare poorly compared to other indigenous people in Latin America in both absolute and relative terms** (Figure VI.3). The substantial gaps between indigenous and non-indigenous populations within Panama in terms of services and human capital are mirrored in the gaps between the Indigenous Peoples of Panama and others Indigenous Peoples in the region. Additionally, other countries in the region with large indigenous populations have seen economic growth more effectively moving these groups out of poverty. In Peru, Ecuador and Bolivia, the gap in poverty rate changes between the indigenous population and the overall population is smaller than in Panama.

150. **The differences in between Panama's Indigenous Peoples' access to services and those in other LAC countries are striking**. Among 12 Latin American countries[61], Panama has both the lowest level of electricity coverage among the indigenous population (40 percent) and the

[61] This comparison of the indigenous populations in Panama with those in the rest of Latin America is based on "*Los Pueblos Indígenas en América Latina: Balance político, económico y social al término del Segundo Decenio Internacional de los Pueblos Indígenas en el Mundo*" Washington, D.C., (World Bank, 2014c)) and compares Panama to Brazil, Bolivia, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Nicaragua, Peru and Venezuela.

largest gap between the indigenous and non-indigenous populations (52 percentage points compared to the next largest gap of 38 percentage points in Colombia). The gap in sanitation is also the largest and only one country, Nicaragua, has lower absolute levels. For piped water, again, the gap is largest in Panama although the absolute level is higher than in Colombia, Nicaragua and Peru. Access to internet is also systematically lower among the indigenous populations in the region and the indigenous-non-indigenous gap in Panama is one of the largest.[62] On a slightly more positive note, while Panama's rate of change in terms of access to sanitation is one of the slowest, the rate of change for access to water and electricity is faster than in many countries.

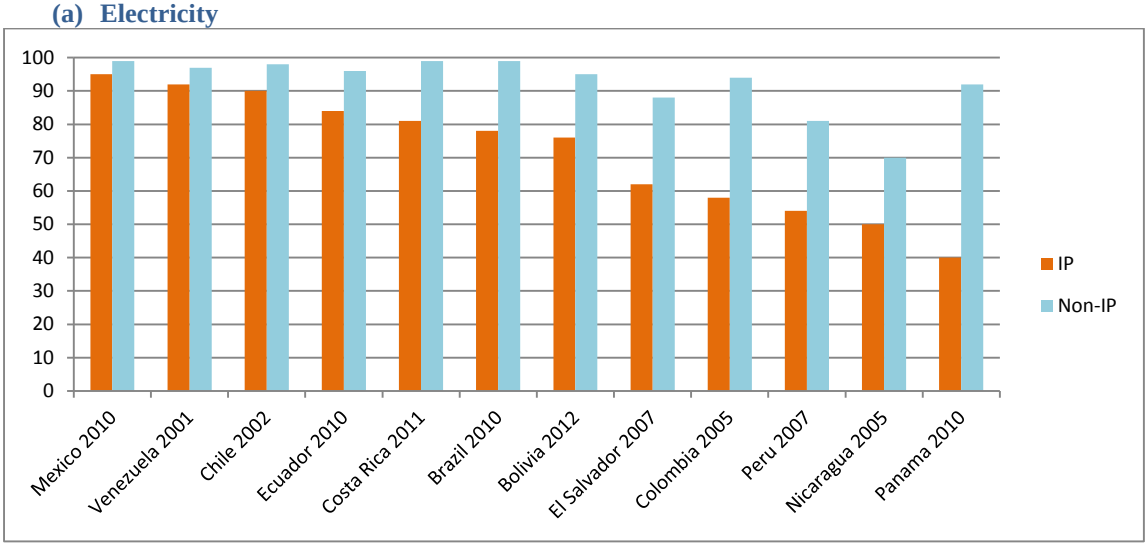
151. **Health indicators are also lower among the indigenous population in Panama than the rest of Latin America.** Infant mortality rates among indigenous children are only higher in Bolivia. Panama has the largest gap between infant mortality rates of indigenous and non-indigenous children (three times greater among the indigenous population) and has one of the lower rates of change.[63] It is also one of only two Latin American countries where the elderly are more male than female, perhaps a reflection of the extremely high rates of adolescent pregnancy (Panama's Indigenous Peoples have the highest rates of teen pregnancy among the indigenous in Latin America and the largest gap between indigenous and non-indigenous)[64], and low rates of births attended by skilled medical practitioners.[65] The indigenous populations in Panama and Brazil are also disproportionately affected by HIV/AIDS.[66]

152. **Only on education indicators do the Indigenous Peoples of Panama appear to do better than other indigenous groups in Latin America.**[67] Levels are higher and there have been many positive changes. Primary enrollment among indigenous children is almost universal and secondary enrollment, while lower, is similar to that of other indigenous groups in the region. The country still lags behind in tertiary enrollment however. Nonetheless, in both rural and urban areas, the indigenous groups fare less well than their non-indigenous counterparts.[68]

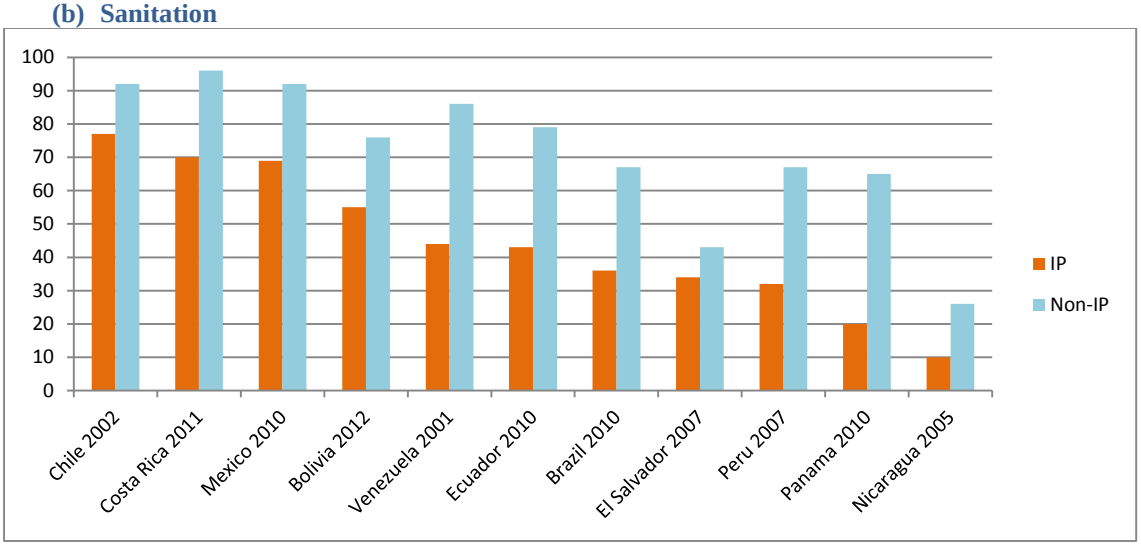
[62] ECLAC, 2014
[63] ECLAC, 2014.
[64] ECLAC, 2014.
[65] World Bank, 2011a.
[66] Foro Permanente, 2014.
[67] Education data from ECLAC, 2014.
[68] ECLAC, 2014.

Figure VI.3: Access to Basic Services by Ethnicity

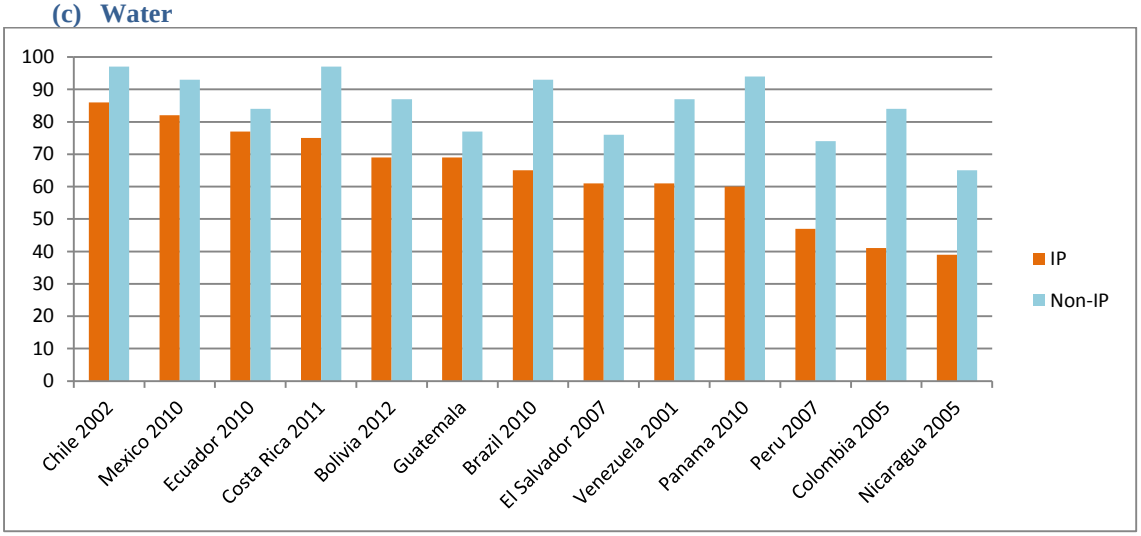
(a) Electricity



(b) Sanitation



(c) Water



Source: World Bank, 2014c.

PRIORITY AREA

153. **The increasing concentration of poverty in indigenous areas suggests that special attention is needed for these areas and this population group.** The Indigenous Peoples of Panama have significant social capital, with well-developed and functioning community and governance structures. Their lands represent significant wealth and bio-diversity. However, many of the Indigenous Peoples in Panama suffer from chronic poverty and they have multiple deprivations: extremely low incomes, low access to basic services and infrastructure, lower human capital, poorer health outcomes, fewer labor options and de facto land tenure insecurity. Many of these problems are long-term and have been less responsive to economic growth and social program impacts than expected.

154. **The complexities of addressing the twin goals in the *comarcas* require attention to issues of culturally appropriate economic opportunity, social assistance, infrastructure provision and the enforcement of legal rights**. The concentration of economic growth in specific sectors and geographic areas outside of the *comarcas*, along with the limited shifts in employment and earnings within the *comarcas*, highlight the constraints of the present growth model and domestic markets. The challenges faced by the social protection system in the *comarcas* also merit further attention. Spending levels are at adequate levels yet outcomes are muted. Education enrollments have increased, in part due to social assistance programs, but less in the *comarcas* than in other rural areas and the benefits in health are more limited. The impact on poverty reduction, in the short term, is constrained due to both limits in coverage and benefits. The lack of services continues to be a constraint, particularly water and sanitation. Low population density and dispersed populations are often blamed for lack of service provision. While this may be true in part, the fact that Los Santos, one of the three provinces with the highest rate of poverty reduction in the past six years, also has a population density below that of the poorest *comarca*, suggests that other barriers to service provision are at play than need to be addressed. Additionally, the lack of culturally appropriate models for development has reduced the positive impact of government programs and policies. Differences in community organization, communal property, inter alia, need to be taken into account. Furthermore, understanding the tradeoffs the indigenous peoples are, and are not, willing to make among different goals is needed.

155. **While solving the problems of extreme poverty in Panama will not be done only focusing on the Indigenous Peoples living within the *comarcas*, this appears to be a good starting point**. The fact that the *comarcas* are home to 42 of the extremely poor in the country explains the focus on those areas, as does the fact that poverty is worse in the *comarcas* than in the rest of the country. As important, many of the issues that affect livelihoods in the *comarcas* also affect those of their rural neighbors. Some investments, such as those in basic infrastructure in roads, electrification and sewage systems would benefit both groups rural non-indigenous and rural indigenous populations. In contrast, investing in social services such as health and education would require special attention to the *comarcas* to adapt services to the social and cultural norms of the Indigenous Peoples. In short, while Panama's agenda on eradicating extreme poverty is much broader than just the *comarcas*, the levels and severity of poverty there and the slowness of positive change suggest the importance of prioritizing the *comarcas*.

Filling Knowledge Gaps

While some evidence suggests that Afro-descendants in Panama are better off than Indigenous Peoples, they also suffer from deprivations. The knowledge gap around Afro-descendants, however, limits what can be concluded in this report. For those indicators of well-being that exist, Afro-descendants are, on average, better off than the Indigenous Peoples. However, they also suffer from multiple deprivations. A 2013 qualitative study highlights the fact that both Afro-Panamanians and other Panamanians perceive racial discrimination as a factor that creates obstacles to Afro-descendants' economic, educational, social and labor opportunities as well as limits access to basic services vis-à-vis the rest of the Panamanian population. Furthermore, Afro-Panamanians perceive that there is negative stereotyping in the media towards the Afro-descendant community and Afro-Panamanian women feel they are particularly discriminated against, especially in the labor force. A further report argues that Afro-descendant populations live in areas with poorer infrastructure, have lower access to education, health care, employment and political participation. [69] An important task going forward will be to address both the data gaps in the country as well as pull together what little data that exist to attempt to better understand the constraints and opportunities of this group. It is hoped that the *Consejo de la Etnia Negra* (Council of the Black Ethnicity)[70] will be a source for further consultation and data

IDENTIFIED OPPORTUNITIES

156. **The National Integrated Development Plan of the Indigenous Peoples of Panama (Plan (DIPORP) for its Spanish initials) provides a new opportunity to affect welfare among Indigenous Peoples in Panama.** This is due to the fact that is represents a consensus, is focused on the broad range of issues that affect development and looks to the long term as well as the short and medium terms.[71] The Plan is the result of the two year-effort by the National Indigenous Development Working Group (*Mesa nacional de desarrollo indígena*). The Working Group itself was established in the aftermath of a period of conflict between the indigenous communities and the national Government around land rights, inter alia, and was charged with creating a national development plan that would become national policy and be approved into law.[72] (See Box VI.1 for a summary of the specific areas of the Plan DIPORP).

[69] UNHR, 2013

[70] Created in 2007 under the Presidential decree, known as Ley 116, the council, which was to sit within the Ministerio de Gobierno, was designed to more proactively mainstream the needs and aspirations of Afro-Panamanians into government programming, culturally appropriate educational services and anti-discrimination policies.

[71] The facts around the Plan DIPORP come from the Plan itself (Mesa 2013).

[72] The Working Groups had four areas of work: (i) elaborate the Plan DIPORP, (ii) create a permanent space for consultation between the Government and the Indigenous Peoples, (iii) improve the capability of the different actors to implement the consultation process and uphold international laws and agreements, and (iv) disseminate to all parties, the development plans, agreement and results in the appropriate language.

Box VI. 2: Main Areas of Action for the Plan DIPORP	
Governance & Territories	• Strengthen traditional structures towards a plurinational state • Strengthen the leadership & capacity of traditional authorities • Strengthen territorial governance & guarantee/strengthen land tenure security • Adopt & implement international legal instruments (ILO 169) & establish safeguards • Implement consultation & participation mechanisms for all projects and decisions that affect IP territories • Empower IP women and youth & their participation and leadership
Economics	• Develop a "green" and productive culture focused on environmental protection and conservation • Promote entrepreneurial activities and development models owned by the territories • Strengthen traditional productive systems and develop new crops and food sovereignty • Improve existing economic activities & structures • Develop sustainable production models for territorial economic development • Promote participation of women and youth in productive activities
Education, Culture and Health	• Revise & implement Law 88 on Intercultural Bilingual Education • Improve education quality and efficiency, focus on innovation and competitiveness, technology and communication • Increase and improve higher education for youth and women • Revitalize and promote cultural development • Improve infrastructure and integrated health service, preventative medicine, access to clean water, and sanitation • Increase the number of health personnel and improve coordination with authorities • Strengthen, through the traditional authorities, traditional medicine through public resources
Housing, Infrastructure & Energy	• Improve housing and communal spaces using traditional practices • Establish a program of special attention for urban indigenous people & their housing • Improve and expand existing road, WSS, energy, communication infra in territories • Establish renewable energy programs
Source: Plan DIPORP, 2014	

157. The Plan DIPORP represents a consensus among the 12 indigenous congresses. For the first time, there is one document that has been agreed upon by all the Indigenous Peoples in the country and represents a unified vision of the goals and priorities of these groups. The lengthy process undertaken by the Working Group to reach this consensus was carefully designed to respect the traditions and customs of each group. During the first phase of the Plan DIPORP's development (March-July 2013), a total of 94 consultation meetings among the 12 indigenous congresses were carried out by the traditional authorities of each group. The second phase, that of drafting the Plan itself, was carried out by a committee of indigenous and government representatives and facilitated by the United Nations Development Programme (UNDP) representatives. The proposed Plan was submitted to the Working Group for approval on October 1, 2013 and then underwent a validation process (phase three) across the country and among all the indigenous groups and was approved in December 2013. The fourth phase, that of approval by the Government and the National Assembly, was launched prior to the elections but, due to the change in government, has had to be re-started and a new law making the Working Group permanent (and validating the Plan DIPORP) is expected to be submitted to the National Assembly in the new year for discussion and debate.

158. **The broadness of the Plan DIPORP is another factor that enhances its usefulness as a guide for improving shared prosperity and eradicating extreme poverty among indigenous populations.** Unlike many related exercises, the Plan is not limited simply to legal issues but instead addresses the entire gamut of constraints and opportunities facing the Indigenous Peoples. The Plan is based on the three thematic pillars of economic development, social development and legal rights and its concrete goals and objectives across these areas provide important direction for how the national Government, civil society and the Indigenous Peoples' congresses can work together to address poverty eradication and promote shared prosperity.

159. **Finally, the Plan DIPORP has a long-term focus.** The Plan covers a 15-year planning horizon. This longer term focus provides an explicit opportunity for evaluation and adjustments to the Plan throughout implementation and allows for investment in both physical and human capital. Much of the Plan DIPORP focuses on training and capacity building, aimed at both the indigenous communities and public servants in an attempt to build new mechanisms of service provision and take-up. The Plan DIPORP also addresses short term concerns but it is the longer term focus that provides the greatest opportunity for Panama to affect the welfare of the indigenous populations and learn in the process.

160. **Using the Plan DIPORP as a foundation will ensure that the cultural identity and the specific characteristics of the Indigenous Peoples are taken into account in the determination of the best combination of social assistance and economic development.** Local knowledge, practices, systems and experience are critical components to determining the best combination of social assistance and economic development that can lead to long term success. The Plan DIPORP highlights how many of the barriers to service access and use are due to poor design elements that fail to embrace culturally specific practices and systems, and failure to effectively include the Indigenous Peoples in the design and delivery of programs - all elements critical for ownership and uptake. Addressing the cultural and contextual issues may help to make public investment more effective: in the 2009-2012 period, overall budget execution was just under 70 percent although the majority of the sectors saw much smaller percentages (housing 26 percent, agriculture 30 percent, for example).[73] It is not clear whether the low execution of public investment is due to inappropriate investments, low take-up or low capacity of executing agencies.

161. **The prioritization process for identifying opportunities to affect inclusiveness and the welfare of the indigenous populations is based on the Plan DIPORP and consultations with the country team and stakeholders in Panama.** The critical opportunities that have been identified reflect the three thematic pillars of the Plan: economic development, social development and legal issues.

162. **Opportunities have been identified around specific types of economic development, governance and the provision of health and education services with the emphasis being on culturally appropriate interventions.** In terms of economic activities, the focus would be on economic development with identity, namely promoting activities that generate income while enhancing existing natural resources. Increasing the quality and access of health and education services in indigenous communities requires that the service content and delivery mechanisms are adapted to be culturally pertinent. Finally, the focus on governance is to take advantage of the

[73] MEF, 2012

opportunity to enhance the Indigenous Peoples' participation as Panamanian citizens while at the same time recognizing their cultural uniqueness and diversity in aspirations and world view.

163. **Realizing these economic growth opportunities will depend heavily on progress being made on the priority areas identified in Chapter IV above.** The *comarcas* lack basic infrastructure that is needed for creating the foundations for economic growth. Focusing on overcoming the present inability of the energy sector to supply power to the *comarcas* will contribute to the development of new industries and job creation within the *comarcas*. In parallel, the opportunities identified around institutions (regulations, transparency and effectiveness) will be needed to ensure revenues from economic opportunities can be generated and effectively managed for the benefit of the indigenous population while the land rights of the Indigenous Peoples are protected. This is of particular importance if the mining sector is to grow in a socially and environmentally appropriate manner. Finally, as described in the Plan DIPORP, education is a major concern. To the extent that the system can be improved through modernizing the curriculum and adapting the way in which service is provided both dropout and attainment levels can be affected with subsequent effects on economic outcomes.

164. **Addressing these issues has a direct effect on eradicating extreme poverty given that such poverty is concentrated in the Indigenous Peoples.** Evidence for successful interventions in culturally appropriate economic development come from Norway, Canada, Peru, Australia and Alaska. Costa Rica has implemented a program of Payments for Environmental Services of US$3 million per year to indigenous communities for ten years. Both this and the new *anteproyecto de ley* to regulate Payments for Environmental Services, presented to the National Assembly in August of 2014, could serve as a model for Panama. Evidence of successful improvements in relationships between governments and the Indigenous Peoples' governance structures can be found in Canada, Brazil and Bolivia, again examples of how such work could be implemented in Panama.

165. **There is substantial political will around these opportunities.** As discussed above, the Plan DIPORP creates a platform on which the indigenous communities themselves, the national Government and the private sector can build. Many of the proposed changes in service delivery are already covered in law (Resuelto N° 4376 del 25 de agosto de 1999, Ministerio de Salud, Medicina Tradicional, Gaceta Oficial N° 23,880, 7 de septiembre de 1999; Bilingual and Intercultural education Law No. 88). And there are agreements in place to legislate around the Plan DIPORP. Finally, the creation of a vice-ministry of Indigenous Affairs and the plan to transform this into a Ministry both point to the political feasibility of actions around these identified opportunities.

VII. Sustainability

166. **How sustainable is Panama's progress towards achieving the twin goals?** The previous sections of this document have described Panama's progress towards the twin goals, the country's outstanding growth performance, and the overall inclusive nature of this growth so far. The current section turns to the future, addressing the question of whether Panama can sustain this progress. This question will be addressed from an economic, social, and environmental perspective, followed by a reflection on priority areas from a sustainability point of view.

ECONOMIC SUSTAINABILITY

167. **In the past, Panama has achieved progress mainly through fast economic growth, a strategy that is viable for the short to medium term, albeit with a few qualifications.** Given the rapid growth of recent years, it is expected to moderate in the future. As pointed out in the growth section however, the identified priority areas of energy, education, and public sector institutions are likely to impact growth negatively in the future if they remain unaddressed. Moreover, as pointed out in the inclusiveness section, growth may continue to stop short of including the Indigenous Peoples of Panama, unless specific efforts are made to address their situation and opportunities. In addition, compliance with international transparency standards, continued efforts on macroeconomic stabilization policies, and the economic role of the Canal for the country need to be carefully taken into account. This section discusses these three challenges.

168. **The sustainability of Panama's high reliance on foreign financing for its investment program will depend on continued progress on compliance with international standards on transparency.** The country appeared on the blacklist by the Financial Action Task Force as a "high-risk and non-cooperative jurisdiction" that did not support international efforts to fight money laundering in 2000.[74] In addition, Panama's practices on tax information sharing caught the attention of the OECD Global Forum resulting in a peer review process on the full and effective exchange of information being initiated in 2009. Finally, Panama's maritime registry also appeared on the black list of the Paris Memorandum of Understanding. This international body, made up of 27 maritime administrations from Europe and North America, seeks to eliminate the operation of sub-standard ships through a harmonized system of port State control. Panama's open registry allows for easy registration (often online), the ability to employ cheaper foreign labor, and exemption from income taxes for foreign owners. Panama's registry is consistently beset by allegations of corruption and the criticism of hiding the true identity of ship owners and the lax enforcement of rules and regulations.

169. **Panamanian authorities reacted to the inclusion into the money laundering black list in 2000 by adopting legislation that allowed the country to progress to the so-called grey list.** In particular, Panama introduced new legislation to expand criminal offenses for money laundering which was enough to remove the country from the blacklist in June 2001. The country is now

[74] The Financial Action Task Force is an inter-governmental body established in 1989 by the Ministers of its Member jurisdictions and currently includes 36 member countries. The objectives of the Task Force are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.

included on the so-called grey list of the Financial Action Task Force. This list names countries that are in the process of improving compliance with international standards on global anti-money laundering and combating the financing of terrorism. In the Latin American region, Argentina, Cuba and Nicaragua also appear in this list. A recent report on observance of standards and codes conducted by the IMF found that Panama's anti-money laundering framework was still not fully in line with the Task Force's recommendations. The country has ratified the main United Nations Conventions on money laundering and has legal provisions in its Penal Code that are broadly in line with the standards set by the Task Force. However, a number of significant deficiencies remain, according to the report.[75]

170. **In June 2014, the Government made a high-level political commitment to addressing remaining deficiencies.** The Government will work on implementing its action plan to address these deficiencies, including by: (i) adequately criminalizing money laundering and terrorist financing; (ii) establishing and implementing an adequate legal framework for freezing terrorist assets; (iii) establishing effective measures for customer due diligence to enhance transparency; (iv) establishing a fully operational and effectively functioning financial intelligence unit; (iv) establishing suspicious transaction reporting requirements for all financial institutions and designated non-financial businesses or professions; and (vi) ensuring effective mechanisms for international co-operation.[76] Progress in implementing this action plan and the passage of a new anti-money laundering law would address the major deficiencies identified in the report on observance of standards and codes and help to strengthen the status of Panama as an international financial and business center.

171. **In terms of compliance with international standards of tax transparency, Panama has taken measures to move to the next phase of the Global Forum's peer review process.** Compliance with Global Forum's standards involves demonstrating that national legislation and bilateral/multilateral agreements on sharing of information for tax purposes meets the standards onten different technical elements. In September 2009, the OECD Global Forum launched a formal peer review process to monitor and review progress made towards full and effective exchange of information, which consists of two phases: Phase 1 (review of legal and regulatory frameworks of each country) and Phase 2 (assessment of the practical implementation of the "internationally agreed standard" on tax transparency). Significant progress has been accomplished in these areas. The Panamanian Government has successfully negotiated 19 Double International Taxation Agreements based on the OECD's Model Tax Convention on Income and on Capital, and 11 of these are already in force. As a result of these agreements, the Government has adjusted its internal legislation for the effective application of international tax agreements and to include the principles of transparency and effective exchange of information for tax purposes. In order to achieve this, the Government passed (i) Law 33-2010 to introduce transfer pricing rules, permanent establishment and tax residency into Panama's Fiscal Code; (ii) Resolution 088-DS/AL 2010 to create the International Taxation Unit and the Tax Information Exchange Unit; (iii) Law 2 -2011

[75] See IMF, "Panama: Report on Observance of Standards and Codes on the FATF Recommendations for Anti-Money Laundering and Combating the Financing of Terrorism", IMF Country Report 14/55, February 2014.

[76] See http://www.fatf-gafi.org/topics/fatfgeneral/documents/plenary-outcomes-jun-2014.html. GAFISUD is a regionally based inter-governmental organization that includes 12 countries from South America, Central America and North America in order to combat money laundering and terrorist financing by means of a commitment to continuous improvement of national policies in these areas and to the enhancement of different cooperation mechanisms across its member countries.

to identify and apply the "Know your clients" procedures; and (iv) Law 47-2013 to immobilize bearer shares through a custodial arrangement system.

172. **In addition, Panama was able to reform its maritime registry to advance to the white list of compliant countries.** Since 2008, Panama has made enough progress in reforming its maritime registry to advance to the white list of the Paris Memorandum of Understanding.

173. **Macro stability remains a continuous task and requires a high degree of fiscal prudence to be sustainable.** Given that the Panama has given up monetary policy as a policy tool and restraint the use of fiscal policy, the country has little room for discretionary fiscal policies. Mindful of this, Panama is managing its fiscal balance following a fiscal rule, the social and fiscal responsibility law that was introduced in 2002 and updated several times to adapt to realities such as the 2008 global financial crisis. The fiscal rule mandates fiscal deficit ceilings and has helped Panama to maintain fiscal prudence.

174. **Yet additional budget flexibility would be welcomed to create room for countercyclical policy.** Almost 70 percent of the total expenditure in Panama is rigid. This is even more binding in the context of low tax revenue collection, which averaged 10.2 percent of GDP in the period from 2001 to 2013, compared to the already low 12.7 percent of GDP of the Central American region. The requirement of prudent fiscal policy restrains the role of Government in terms of public service provision to Panamanian citizens. Moreover, 50 percent of the non-tax revenues come from the Panama Canal, and this makes the Government highly dependent of these resources. Policy measures as the creation of a sovereign fund (Fondo de Ahorro de Panama) are adequate but might be insufficient to provide fiscal resources for prolonged periods of down-turn where revenues both from the Canal and from tax collection are dropping in the context of a shrinking economy.

175. **In addition to prudent fiscal policy, the country's dollarization also calls for a healthy banking sector.** Lending practices in Panama need to be (and indeed have been) more conservative than in countries that do have a lender of last resort and/or a deposit insurance scheme, with greater liquidity reserves and a strict, ready-and-able-to-act-swiftly, supervisory role on the Authorities. The Panamanian Superintendence of Banks has been playing a strong role in this sense.

176. **As an international financial center with extensive external linkages, the country is exposed to external risks and reputational risks weigh heavy.** Foreign assets of Panamanian banks represent 39 percent of GDP, significantly more than the five largest economies of LAC none of which exceed 5 percent. As a result, credit risks in foreign country debtors could have significant impact on the balance sheet of Panamanian banks. Similarly, foreign liabilities of the Panamanian banking system represent 95 percent of GDP which is more than four times larger than Chile (21 percent) which has the highest percentage relative to GDP amongst the top five 5 Latin American economies. This implies that the Panamanian banking sector is highly exposed to international interest rates

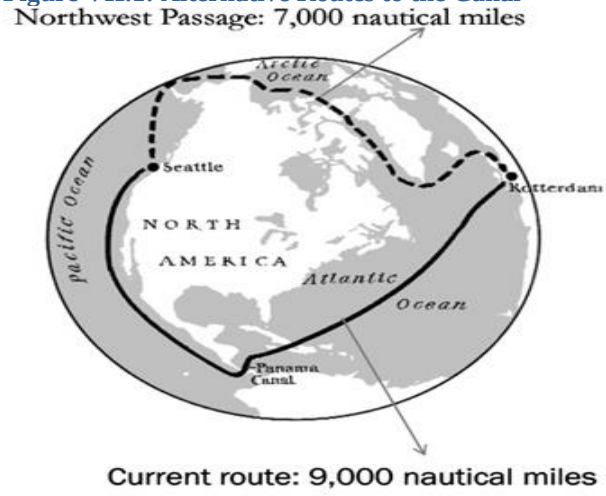
177. **Finally, given the crucial role of the Panama Canal for the country's economy, a close look at the sustainability of Canal operations is warranted.** In particular, competition to the

Canal requires constant adjustment to maintain market edge. Alternative shipping routes to the Panama Canal have been a constant source of curiosity, as many attempts continue to be made to find other options for global routes. On the eastern side, the recent project by Egypt to widen the Suez Canal in parts of its length seeks to enlarge transit capacity and decrease waiting time from 18 to 11 hours for most ships. The 72 kilometer works are expected to be completed within one year as per official Government statements.

178. **Closer to home, several countries have played with the idea of a dry canal in Central America; however this continues to be a commercially less competitive option.** The recent announcement by Panama's northern neighbor Nicaragua of the initiation of a project to build the Nicaragua Canal passing through Lake Managua could have significant impacts on the share of trade going to Panama, once completed. The project, financed by the Hong Kong SAR, China based HKND Group, is estimated to cost US$50 billion and will include some of the largest earthworks in recent times to clear a 278 km passage way through Lake Managua, with significant environmental and social impacts to be considered.

179. **In the medium to long term, another less cited competition may be created by nature as global warming melts the arctic cap.** Its summer ice cover has already shrunk by more than 40 percent over the last few decades, raising the prospect that it may soon be possible to sail along the Arctic sea routes with ease. By utilizing the so called Northern Sea route along the Russian northern coast (also known as the Northern Passage) or the Northern Passage through the Canadian Arctic archipelago, large bulk carriers would substantially reduce the distance between Asia, Europe and North America. This would mean saving more than 4000 nautical miles between German and Japanese ports.[77]

Figure VII.1: Alternative Routes to the Canal



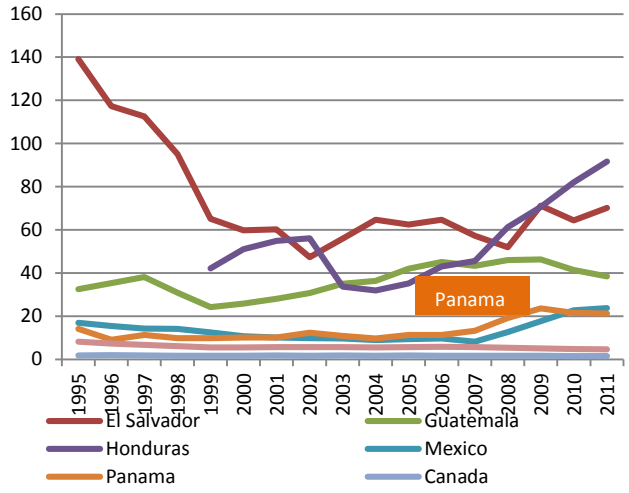
Source: World Bank, 2014

[77] Kerr, 2002

SOCIAL SUSTAINABILITY

180. **The country's main risks relative to social sustainability and social cohesion are linked to the dynamic growth that has lifted many into middle class status while leaving others in extreme poverty, the crime and violence linked to Panama's strategic position as a drug corridor and weak land rights protection.** The stark economic inequalities and relative deprivations, along with both perceptions and evidence of corruption and more precarious forms of urban employment, create strains on society. Relative deprivation has led some groups to further organize and assert political voice (such as the *Mesa Indigena*), while others take advantage of the low barriers to entry to the illegal drug trade that continues to grow in the country's unofficial economy.

Figure VII.2: Homicide Rates (per 100,000)



Source: UNODC, 2012.

181. **Relative poverty in urban areas, exclusion and the illegal drug trade are factors in the increases in violent crime and gender-based violence.** The country's homicide rate places it 39th in terms of homicides globally (Figure VII.2).[78] Cases of reported rape rose 36 percent between 2009 and 2012—and in 2009 nationally, 19.7 percent of women experienced some kind of physical violence after the age of 12 with 9.3 percent reporting experiencing physical violence within the past year while thefts rose nine percent. [79] [80] The population is very conscious of the increased crime and violence. In 2004, crime and violence ranked third in the top five problems of the country, moving up to first place by 2008 and has remained in this position (Figure VII.3).[81]

[78] UNODC, 2013.
[79] Unless otherwise stated, all data of this section is taken from *the Encuesta Nacional de Salud Sexual y Reproductiva (ENASSER, 2009).*
[80] Overseas Security Advisory Council, US Department of State, 2013.
[81] LAPOP 2004 through 2012.

Figure VII.3: Critical Problems Facing the Country (In Order of Importance)

2004	2006	2008	2010	2012
Unemployment/lack of jobs	Unemployment/lack of jobs	Crime and delinquency	Crime and delinquency	Crime and delinquency
Corruption	Crime and delinquency	Economy	Economy	Inflation, high prices
Crime and delinquency	Corruption	Unemployment/lack of jobs	Unemployment/lack of jobs	Corruption
Economy	Economy	Inflation, high prices	Inflation, high prices	Lack of water
Poverty	Lack of water	Corruption	Corruption	Economy

Source: LAPOP, 2004 to 2012

182. **Urban youth, along with rural and indigenous populations face particular risks.** Similar to many of its Central American neighbors, Panama has a large youth cohort with 24.9 percent of the population between the ages of 15 and 29, 15 percent of which neither work nor attend school.[82] Rising gang activity, with roughly 240 gangs in Panama that operate in and around the major urban centers[83], are of some concern. Rural and indigenous areas are also vulnerable to crime and violence. This is particularly the case in Darien, a region socially and politically isolated and economically marginalized and which is affected by violent conflict between Colombian and Mexican cartels for control over narcotics trafficking routes and the presence of demobilizing guerillas and displaced persons from Colombia. The violence and insecurity is affecting production as families are moving to larger population centers and women stop working in community agricultural plots.

183. **Crime and violence have the potential to stifle growth if not managed.** The examples from the neighboring countries are stark. An extensive growth analysis of El Salvador[84] identified crime and violence as one of the two major constraints to growth with the huge cost of crime and violence a major factor limiting El Salvador's ability to compete on the world markets.[85] In Honduras, the costs of crime are estimated to represent 10 percent of GDP--the health costs alone are estimated at 1.3 percent of GDP—and GDP could increase by 0.7 percent if a 10 percent reduction in crime could be generated.[86] While estimates of costs are subject to error, the fact that crime and violence, if unchecked, can hamper growth is a legitimate concern.

184. **Struggles around infringements of indigenous land rights also pose serious threats to social sustainability.** The legal establishment of the five *comarcas* between 1938 and 2000 formed the base of rights and protections for the indigenous population, a base that is widely recognized as a model of protection of indigenous rights. However, the United Nations Human Rights Council[87] argues that the legal framework is fragile and that Panama has significant problems in terms of both the implementation and the protection of the rights of the Indigenous Peoples, especially their rights over land and natural resources. Panama is one of the six Latin American countries that have not signed the ILO Convention No. 169, a legally binding international

[82] Hoffman, 2012.
[83] REDSAL, 2012.
[84] USG-GOES, 2011.
[85] USG-GOES, 2011; Acevedo, 2008.
[86] World Bank, 2011b.
[87] HRC, 2014.

instrument open to ratification, which deals specifically with the rights of indigenous and tribal peoples.

185. **Illegal logging, large mining interests and other encroachment on indigenous lands are ongoing problems**. Land and resource issues have sparked protests and confrontations, leading to fatalities in recent years, and may continue as the Indigenous Peoples feel threatened. The head of the National Coordinating Body of Indigenous Peoples in Panama is quoted as saying in reference to this issue: "We are a peaceful people, but we are at war, and it is being fought by women, children, men, caciques," (Barrigón Dogirama as cited in Berger, July 31, 2013). [88] In 2011, after three weeks of violent protests and roadblocks by the Ngäbe Buglé and environmental groups, the Government repealed the reforms to the mining law (Law 8). The cancellation of the law leaves a legal vacuum as the clauses of the mining law that Law 8 had replaced were not re-instated. Both the mining and tourism sectors, while potential sources of much needed growth, also have continued potential to impinge on indigenous rights and lead to confrontations.

186. **While the risks to social cohesion exist, various factors may play a mitigating role.** The recent success the Government has had in reining in homicide rates suggests that Panama may be able to avoid the escalation seen in the neighboring countries. Most youth gangs in Panama are in relatively early stages of development, are largely a neighborhood oriented phenomenon with limited adult involvement, and lack criminal sophistication or linkages to organized crime and/or corrupt public officials. The nascent gang problem, among others, could be dealt with if the country can pull together its well-established but fragmented array of actors --governmental and non-governmental actors, including the private sector -- that work in the area of youth services and crime prevention to provide "wrap-around"[89] services to disenfranchised youth. Ratification of the Convention 169 could help to promote land and other rights as ratification would trigger international supervision of the implementation of the Convention, covering a range of issues from non-discrimination to cultural specificities, consultation and participation and the right to define priorities for development in the *comarcas*. The planned creation of a Ministry of Indigenous Affairs to help promote economic and social welfare of the Indigenous Peoples in the country and support the Plan DIPORP provides further opportunities improvements in the protection of land and resources rights of the Indigenous Peoples in Panama.

ENVIRONMENTAL SUSTAINABILITY

187. **Safeguarding Panama's water and natural resource base is critical to the current growth model linked to the Canal and other economic activities.** The Panama Canal needs close to 2,580 hm^3 of water per year and depends entirely on Lake Gatun, and consequently, the health of the surrounding rainforest. One month of full operation uses around one-third of the available Gatun Lake volume, which results in a heavy dependence on precipitation, a concern in the dry season.[90] In 2015, once the Canal expansion is complete, it is estimated that approximately 3,736 hm^3 of water will be needed to operate the Canal, a 45 percent increase. Ensuring that water

[88] Reuters, 2011. Caciques are traditional indigenous leaders.
[89] Wrap-around services refer to the coordination of multiple service providers (i.e., health, education, social services, law enforcement, civil society, etc.) that respond to the changing needs of youth through the various lifecycle stages. In the U.S., a case worker typically coordinates the provision of such wrap-around services.
[90] Panama Canal Annual Report (2013)

resources are adequately managed is a top priority for the Panama Canal Authority, which has put in place a strong management and monitoring system that ensures that different demands for water are met while maintaining the health of the watershed ecosystem. The risk posed by shifting climate patterns, therefore, becomes critical to the sustainability of the Canal operation and hence economic sustainability. The El Nino Southern Oscillation climatological phenomenon over the Panama Canal watershed is characterized by a reduction of total amount of rainfall. In terms of long term climate change, the recent IPCC 5th Assessment (2014) cites a trend of increasing precipitation over most of Panama. This is generally good news for the Canal. However, greater variability, with more frequent floods and droughts, poses a real risk.

188. **Infrastructure-based growth requires strong environmental institutions and enforcement to avoid long term irreversible negative impacts.** As Panama continues on its development trajectory fueled by investments in the construction and logistics sectors and aspires to expand its image as a tourism and service hub, strong regulatory and institutional environmental framework, monitoring and enforcement are needed to guide the design and implementation of infrastructure projects. The limitations of the national environmental authority, ANAM, in the areas of priority setting, planning, and capacity to implement key regulations can lead to significant negative impacts. Environmental information systems are also an important component needed to facilitate greater public participation, an issue which has caused several social conflicts and outbreak of violence around protected and indigenous areas in past years.

189. **In particular, the growth of the mining sector faces environmental risks**. As mentioned in previous sections, the mining sector has the potential to contribute significantly as a driver of growth in the coming decades. However, for this to materialize, the tension between its growth potential and the significant environmental and social challenges needs to be addressed, given that the mining sector is responsible for some of the largest releases of heavy metals into the environment of any industry. It also releases other air pollutants, including sulfur dioxide and nitrogen oxides, and leaves behind tons of waste tailings, slag, and acid drainage. Occupational and environmental exposure to heavy metals, silica, and asbestos can occur during mining operations. The lack of an adequate regulatory framework that regulates safe and sustainable mining permits and incentives for employment promotion and redistribution schemes remains a key bottleneck for the sector to reach its potential.

190. **Increasing urbanization is not matched by adequate planning and service delivery capacity for safe and clean living conditions.** A rapidly growing urban population (at a rate of 2.4 percent per year, it is the fifth highest in the region after Haiti, Guatemala, Honduras and Paraguay), as was discussed in Chapter V, increases the pressure for adequate urban planning to avoid additional future problems.[91] Total environmental health costs estimated at 1.3 percent of GDP per year.[92] In particular, urban air pollution and associated respiratory illnesses and mortality is a growing concern in Panama City, San Miguelito and other urban centers, with 90 percent of total air pollution resulting from transport emissions from the increasingly large vehicle fleet. The

[91] As a result of pollution from untreated urban wastewater from Panama City, Panama Bay in recent years has reached a critical state of eutrophication with unpleasant odors and bans on consumption of fish from its waters. A first phase of waste water treatment under the "Sanitizing the Bay" project is contributing to the improvement of hygienic conditions in and around the metropolitan area.

[92] Country Environmental Analysis, 2008

estimated annual costs of mortality and morbidity due to urban air pollution is estimated at 0.7 percent of GDP. There is marked quality differences between fast-developing urban areas and those lagging behind. For instance, about 400,000 people in urban areas receive water only 7 hours per day, there is very low wastewater collection in low-income urban areas, and 17 percent of the urban population still has inadequate latrines. The challenge of improving the urban environment is reinforced by the ongoing process of decentralization. Law 37 of 2009 gives increased responsibilities to municipal governments in terms of planning and investment in urban infrastructure. However, this has not been coupled with adequate capacity building at that level to allow municipalities to undertake their enhanced roles in planning, budgeting and implementing sound investment choices. Institutional strengthening of local governments will be critical to ensure that Panama's urbanization follows a sustainable trajectory.

191. **In addition to rural vulnerability to natural disasters, urban exposure to disasters is also increasing.** The indigenous *comarcas* Ngäbe Buglé, Emberá-Wounaan and Guna Yala, and the provinces of Bocas del Toro and Darien show historically significant levels of vulnerability to natural disasters.[93] The people affected in these rural areas are characterized by low incomes, as shown previously, as well as precarious housing conditions and poor access to basic services (water and sanitation, electricity, etc.). Increasingly, however, urban areas are also seeing more disaster impacts, within a context of a general lack of informed disaster risk management policies and interventions. The Metropolitan Area of Panamá, home to 43 percent of the country's population and generating about 68 percent of the GDP, has seen increasing floods of higher impacts in the last decade. More than ten national emergency declarations have been issued since 2005, with serious landslides and flooding affecting Panama and Colon, and estimated losses at over US$135 million. While Panama exposure to seismic hazard is not as high as neighboring countries, the potential losses would be huge: a national loss of US$1,634 million is estimated if Panama is struck today by an earthquake similar to that of July 18, 1934 (magnitude 7.4).

[93] Gordón et al, 2012

VIII. Prioritization Linked to Sustainability

BENCHMARKING

193. **Successful Canal operations depend on the availability of adequate water supply all year round.** The risk of lack of water availability in critical months is evident: the peak of Canal traffic coincides with the lowest rainfall period. Droughts threaten the consistent water supply for the Canal operations, such as the risk posed by the drought of this year to limit the size of ships passing through. At the same time, big storms threaten to flood its infrastructure, as has famously occurred in an unprecedented closure in December 2010 (see Box VIII.1). The urban expansion west of the Canal towards Capira puts an extra burden on the Gatun Lake while developments to the east impact the Madden Dam buffer capacity. The data in the past decades demonstrates that the incidence of extreme weather events is increasing.

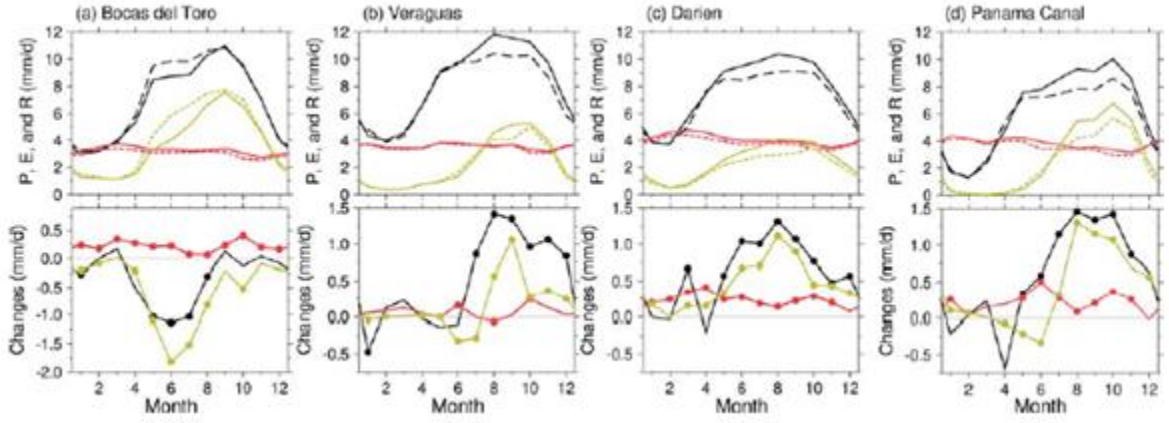
Box VIII. 1: La Purisima[94]

In December 2010, Panama experienced the longest three-day rainstorm in the history of the Canal and recorded a record 760 mm of rainfall in 24 hrs. The intense rain led to 500 landslides, which impacted approximately 9,000 people and caused a surge in turbidity of the water source to 700 NTU, causing the principal potable water plant that services Panama City to collapse. As a result, parts of Panama City were left without water for 50 days[95]. Canal operations were stalled for 17 hours, and for the fourth time in its history, the Panama Canal Authority had to open the lock drains to lower water levels. In addition, the company charged with operating the Bayano Dam had to open its gates given that the basin was reaching its maximum capacity. This action resulted in the flooding of the town of El Llano in Chepo. Residents had to be evacuated and lost approximately US$6 million in agricultural production and household edifices. [96] The total cost of La Purisima was estimated at US$150 million.

194. **Climate change could lead to increased variability in rainfall, thereby affecting Canal operations.** First, climate change may result in changes in rainfall, which according to the recent Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report (2014) cites a trend of increasing precipitation over most of Panama. Fabrega el al (2013)[97] analyzed the projected hydroclimatic patterns for Panama[98], where the study projects an increase in precipitation over all four regions of Panama for the 2075-2099 period: Bocas del Toro, Veraguas, Panama Canal and Darien. Future precipitation appears to increase for all regions by at least 5 percent, with the exception of some areas of the Bocas del Toro region (Figure VIII.1). Increments greater than 15 percent were projected for the most populated areas in Panama located next to the Canal. However, another predicted change is that of higher variability, including increased occurrence of extreme weather events. Overall, climate change-induced weather extremes could lead to costly slow-downs that would actually make the Canal a less-efficient shipping route and cause a ripple of delays.

[94] Named as such given that it took place around the day of Immaculate Conception, December 8.
[95] Espinosa, Jore A. "Gestion del agua en el Canal de Panama durante la inundacion extrema en diciembre de 2010" Division del Agua, Autoridad del Canal de Panama.
[96] Paez, Aristides Cajar. "La madre de las Lluvias" La Prensa 141142.
[97] Fabrega el al. "Hydroclimate Projections for Panama in the Late 21st Centruy", Hydrological Research Letters 7 (2), 2013.
[98] Using the MRI AGCM3.1 (Atmospheric Global Circulation Model) under the SRES A1B scenario.

Figure VIII.1: Regional Mean Seasonal Variation in Precipitation, Evaporation, and Total Runoff under Current (dashed) and Future (solid) Climates and the Change between Current and Future Climates (bottom panels)



Source: José Fábrega et al.
Notes: Global climate circulation model prediction: regional mean seasonal variation in precipitation, evaporation and total runoff under current (dashed) and future (solid) climates. Black lines denote precipitation (mm/day red lines denote evaporation, and green – runoff (the difference between precipitation and evaporation)

195. **In addition, adequate water management underlies the country's ability to generate hydropower for different uses.** Hydropower generation is the most water-intensive sector in Panama, utilizing 50,000 hm^3 per year to operate[99]. During several recent extended dry seasons[100], the metropolitan areas suffered from electricity rationing and the need to import the equivalent of a month of energy usage for 100,000 families from the Central American Electrical Interconnection System given low water levels at hydroelectric dams. The growing economy and related rise in demand for hydropower is faced with limitations on hydropower investments in specific areas. This increases the need to safeguard available opportunities, such as in the Bocas del Toro region, where rainfall patterns are not predicted to increase much, and ensure that the upstream watersheds remain healthy.

196. **Sustaining its forest, biodiversity and coastal resources is also critical for tourism and rural livelihoods.** Tourism is a growing industry in Panama, which in 2010 consumed 1.3 hm^3 of water, while many of the large tourist resorts on the Pacific coast rely on groundwater resources. In 2013, tourists spent approximately US$4.5 billion in Panama, much of it linked to the forest, biodiversity and coastal resources which attract increasing numbers every year. The amount of water needed to sustain the health of Panama's ecosystems is yet unknown. The National Authority of Environment (ANAM) has established the necessary amount of water for ecological protection at 10 percent of overall water flow in basins when granting water resource concessions, but recognizes that this number does not represent the amount of water necessary for conservation.[101] While agriculture consumes much less water and plays a smaller role in the economy (3 percent of GDP), the livelihood of the rural poor depends on it and subsistence farmers have much less coping mechanisms in the face of extreme weather and climate risks. The Plan Nacional de Gestion Integrada de Recursos Hidricos identifies the main contamination source in Panama as the direct discharge of sewage into water bodies without prior or sufficient treatment. The second main

[99] ANAM, National Plan, 2010-2030
[100] IDB, Energy Integration in Central America, 2011
[101] ANAM, National Plan for Integrated Water Resources Management (2013)

contamination source identified is the dumping of solid waste into water bodies. This is followed by diffuse contamination from agriculture (pesticide and fertilizer run-off) and detergent use in cities. Finally, deforestation is also listed as a source of contamination as erosion causes sedimentation and high turbidity levels on water bodies.

PRIORITY AREA

197. **Given its central role in the economic engine of Panama, as well as a key component for other growth sectors and the livelihoods of the poor, adequate water resources management emerges as the key priority area under sustainability.**

198. **In Panama, there are two worlds of water resources management: the Panama Canal watershed and the rest of the territory.** The Panama Canal Authority has a strong monitoring and management program for its water sources, watersheds and forestry resources to ensure the continuity and sustainability of water supply for Canal operations. This includes hydraulic and water quality monitoring, as well as strict land use planning, community-based forest conservation and sustainable resource use programs in the Canal's watershed. In contrast, the remaining 95 percent of the country's watersheds fall under the authority of ANAM, where the capacity and resources to implement and enforce the National Plan for the Integrated Management of Water Resources (2010-2030) are more limited.

199. **Comparison of results from water management efforts shows stark differences**. The Panama Canal Authority is fully responsible for the conservation and management of the Panama Canal Watershed (PCW), supported by an Inter-institutional Commission. On the other hand, the responsibility of ANAM for management of watershed faces conflicting overlaps with several other institutions, such as the Ministry of Health (MINSA) and IDAAN. Monitoring of the PCW has been undertaken systematically over the last two decades, including vegetation cover, hydrological conditions, water quality and social aspects related to land use and settlement. Water quality in PCW is ranked good to excellent. In contrast, ANAM carries out water balances only at ten watersheds and 95 rivers. Of these monitored, 34 percent are classified as contaminated or slightly contaminated. Only four watersheds have management plans and one has an implementation strategy. In terms of concrete results, the PCW was able to reforest and maintain more than 6,200 hectares in the PCW, compared to only 300 hectares around the targeted watersheds in the rest of the country. In their conservation efforts, the Panama Canal Authority has involved and helped over 3,500 producers and residents to receive land titles, and engaged over 6,000 residents and producers in training programs related to sustainable management and production systems. Finally, forecasting and modeling climate change impacts is a central component of the design of new investments in and around the Canal. y contrast, only limited information and small scale adaptation and mitigation programs are undertaken by ANAM in selected dry areas. Annex 5 provides a detailed comparison between the two management models and associated program results.

IDENTIFIED OPPORTUNITIES

200. **Implementing integrated water resources management plans in priority basins can provide a gradual expansion of the successful model outside the Canal watershed.** Rather than

focusing on revising the legal framework for water resources management (which could prove to be a lengthy process), the country could embark on a prioritized program to improve the management plans and implementation capacity in selected priority watersheds. Supporting the development of river basin-based plans would benefit from the successful experience of the PCW, including through sharing of knowledge and expertise across the two institutions, and help build the institutional capacity for ANAM to gradually expand its coverage.

201. **Scaling up integrated disaster risk planning coupled with long term climate change adaptation measures is critical to enhance Panama's future resilience capacity.** ANAM is working on small scale climate change adaptation and mitigation measures, which should be scaled-up to better prepare vulnerable groups and sectors for higher rainfall and longer dry seasons. To achieve this, there is a need to better integrate national disaster risk management into water resource management planning in priority basins. Enhanced information and decision support capacity across key sectors along with improved early warning and monitoring systems is required to build the ability to forecast and plan for a future in which the occurrence of extreme events could be the new norm. A detailed description of these opportunities in the water sector is also included in Annex 3.

Filling Knowledge Gaps

The hydrogeological situation of the country is not well known. Investing in a better understanding of the water resource base is a priority in the short to medium term. Panama's National Plan for Integrated Water Resources Management (2010-2030) indicates that the number of water use concessions have increased from 350 in 2004 to 952 in 2010, which is only a portion of the actual number of users. About 34 percent of the available water is classified as contaminated or slightly contaminated. Water use conflicts occur frequently among users of the same water source, with limited Government capacity to manage and monitor water use. At the same time, economic incentives and instruments to adequately value and manage water allocations are non-existent in Panama, monitoring capacity is limited and the legal and regulatory framework is outdated. ANAM could be supported in developing a better understanding of water availability, especially groundwater. ANAM estimated that 235,000 people, many of whom live in rural areas, rely on groundwater for domestic and agricultural uses, but the country currently has limited knowledge on the quantity and quality of groundwater.[102] ANAM also only collects water balances at ten watersheds, and does not have a full picture of the current water demand, making it difficult to establish a fair price for the ecological value of water. Filling this knowledge gap is considered a priority over the short to medium term.

[102] ANAM, Curso Regional Presentation, 2010.

IX. Conclusion

202. **The analysis identifies five policy priorities that Panama may consider to sustain its recent track record on growth, poverty reduction and shared prosperity.** Growth prospects for Panama are good in the near term with projections for 2014-2019 around 6 percent based on sustaining high levels of investment. However, a number of potential impediments are emerging and could slow growth over the medium to long term if left unaddressed. First, infrastructure, specifically energy, is creating bottlenecks to growth. Second, weaknesses in education and a shortage of skilled labor may be limiting growth and concerns about quality and high drop-out rates from secondary education have been identified as challenges in the education sector. Third, weak public sector institutions may slow down growth, notably if the challenges of transparency, pockets of low efficiency, and weaknesses in the regulatory framework remain unaddressed. In terms of building an inclusive society, the analysis shows that the indigenous have benefited least from Panama's excellent growth performance. Therefore, addressing the challenge of their inclusion has been identified as a fourth priority area. Finally, water management has emerged as fifth priority area. As climate change could lead to increased variability in rainfall, careful water management will decide the sustainability of the successful operation of the Panama Canal as a major pillar of economic activity.[103]

203. **These five priority areas are even more relevant when we take into account the valuable synergies among them.** The analysis in this document has been framed around three questions: (i) what is the nature of growth, (ii) how inclusive is it and (iii) how sustainable. Yet, it is clear that each priority area affects the others. Some simple examples illustrate this point. Infrastructure with a focus on energy has emerged as a priority area under economic growth. However, it is also highly relevant for inclusion and the sustainability of the development model. As described in the inclusion chapter, the limited access of the indigenous to electricity and basic services is a barrier to their economic growth. Addressing the energy deficit in the country will help to remove this barrier and facilitate productive activities and human capital investments. At the same time, solving the energy shortages appropriately can improve fiscal and environmental sustainability. Similarly education and skills have been identified as a priority for economic growth: a well-educated workforce with relevant skills is fundamental to sustain economic growth. In parallel, closing the education gap between the poor and non-poor is also highly relevant for inclusion by providing opportunities to rural and indigenous Panamanians. Institutional capacity clearly affects growth, inclusion and sustainability. Finally, while the focus on indigenous groups arose from the assessment of inclusion, facilitating the contribution of these groups to economic activity in line with their cultural values would contribute to national growth and sustainable development. And sectors like mining and tourism may be able to generate higher growth if Panama becomes a more inclusive society. From a vantage point of social cohesion the area of Indigenous is crucial for sustainability.

204. **In terms of opportunities, those identified under the institution priority area provide**

[103] The priority areas of infrastructure with a focus on energy, education and skills, and institutions including transparency, efficiency, and the regulatory framework are discussed in detail in chapter on the prioritization linked to growth. The priority area of indigenous is discussed in detail in the chapter on the prioritization linked to inclusion. The priority area of water management is discussed in detail in the chapter on the prioritization linked to sustainability.

other clear examples of complementarity. An improvement in public sector management, be it through performance-based budgeting or enhanced fiscal management, will free resources that could be spent on other areas, including education or Indigenous Peoples. In addition, greater transparency will also lead to a more efficient allocation of public resources. In terms of improving the regulatory framework, adopting a modern mining regulatory framework to promote adequate oversight, benefit sharing and environmental and social sustainability is one of the likely necessary conditions to begin conversations with Indigenous Peoples on developing this industry in *comarcas*. Enforcing consistent social and environmental safeguards regulations and standards across sectors obviously will have an important and positive impact on water management.

205. **The opportunities identified to improve education and skills will also lead to advancement on multiple fronts.** If targeted technical education is strengthened better prepared graduates will be available for the labor market. On the one hand this will lead to a better workforce available to work in the energy sector, on the other hand this may lead to a growth impulse in the long run that could generate even more energy demand and reinforce the need for action on the energy sector. Strengthening the monitoring and evaluation of education with the goal of improving the quality could help identify institutional weaknesses in the education sector. Knowing in which parts of the country pupils are doing well and crossing administrative data with outcome data can deliver useful insights in this context. Given the particularly high drop-out rates in indigenous areas the increased payments of the CCT program Beca Universal could make a difference. However, in this context, it is important to understand the parameters for the high drop-out rates in those areas. Finally, a link with water management is that the Panama Canal Authority is able to hire highly educated individuals and is one of the most efficient organizations of the country. Improving the quality of students through technical education, monitoring and evaluation, and reduced school drop-out could boost development in many sectors including the water sector in the rest of the country.

206. **A final example of complementarities is seen within the Indigenous Peoples priority area.** Increasing the pertinence of health and education services in indigenous communities could help reduce high drop-out rates in there. Supporting the economic development with identity especially in relation to payments for environmental services and robust benefit sharing arrangements certainly create complementarities with water management and the institutional framework. The strengthening and formalizing Indigenous Peoples' participation in Government decisions and processes that concern them has potential positive effects on all the other priority areas.

207. **In summary, Panama has been a success story in most regards and by addressing the identified priority areas is likely to sustain this success.** There are, of course, risks including the global economic environment, rising interest rates and climate change for example. There are also risks that Panamanians could be unable to reach consensus to move on the priority areas. However, the country has proven to be resilient during recent crises and the analysis in this report suggests that the country has the building blocks for locking in success.

References

Araujo, J., Brueckner, M., Clavijo, M., Vostroknutova, E. and K. Wacker (2014): "Benchmarking the Determinants of Economic Growth in Latin America and the Caribbean," World Bank Report No. 91015-LAC.

Araujo, J., Clavijo, M., Vostroknutova, E. and K. Wacker (eds.) (2014): "Understanding Latin America and the Caribbean's Income Gap", Forthcoming World Bank Report.

Araujo J., Vostroknutova E., Wacker. K, Clavijo M., (2014): "Understanding the Latin American and the Caribbean income gap: What is preventing LAC from converging to higher income levels?", World Bank Report, 212 pp.

Arraiz I., Rozo S., (2011): "Same Bureaucracy, Different Outcomes in Human Capital? How Indigenous and Rural Non-Indigenous Areas in Panama Responded to the CCT." Documento de Trabajo OVE /WP-03/11, Oficina de Evaluación y Supervisión (OVE), Banco Interamericano de Desarrollo, Washington, D.C.

Autoridad del Canal de Panama, (2013): "Informe anual 2013".

Barletta, N. (2012): "Estrategia para el Desarollo Nacional—Vision, Realizacion, Actualizacion", Panama: Universidad Latina, 2012.

Barro, R. and J. Lee (1994). "Sources of Economic Growth," Carnegie Rochester Conference Series on Public Policy.

Berger E., (2013): "Panama indigenous groups say land under threat", Thomson Reuters Foundation - Wed, 31 Jul 2013 10:45 GMT. http://www.trust.org/item/20130731093650-v4tb5/?source=hptop.

Breen, R. and García-Peñalosa C., (2005): "Income Inequality and Macroeconomic Volatility: An Empirical Investigation,"Review of Development Economics, Wiley Blackwell, vol. 9(3), pages 380-398.

Brueckner M., (2014): Background paper for Latin America and the Caribbean's Study on the Determinants of Economic Growth: Econometric Analysis. 84 pp.

Bruns, B. and Luque, J (2015): Great Teachers: How to raise student learning in Latin America and the Caribbean. World Bank.

Bussolo, M., de Hoyos, R., and D. Medvedev (2011): "Distributional effects of the Panama Canal Expansion", The World Bank Policy Research Working Papers, No. 5848

Cadena, K., Cardoza C., Lucchetti L., and Scott K., (2013): "Central America en el Nuevo milenio: seis historias diferentes de pobreza y desigualdad." World Bank..

Cardenas H., Salazar J., (2007): "Panama's Growth Diagnosis", Inter-American Development Bank Working Paper 39, 2007.

Council on Human Rights (2014). "Informe del Relator Especial sobre los derechos de los pueblos indígenas, James Anaya: Adición La situación de los derechos de los pueblos indígenas en Panamá". Report A/HRC/27/52/Add.1, United Nations.

Datt G., Ravallion M., (1992): "Growth and Redistribution Components of Changes in Poverty Measures: A Decomposition with Applications to Brazil and India in the 1980s." Journal of Development Economics, 38, 275-295.

Dollar, D., Kleinberg, T., Kraay A., (2013): "Growth still is good for the poor", Policy Research Working Paper 6568, World Bank.

Eden M., Nguyen H., (2014): "Reconciling Micro-and Macro- based estimates of technology adoption lags in a model of endogenous technology adoption", in "Understanding the Latin

American and the Caribbean income gap: What is preventing LAC from converging to higher income levels", 57-73.
Espinasa R., Balza L., Hinestrosa C., Sucre C., Guerra S., (2013): "Dossier energético Panama", Inter-American Development Bank.
Fabrega J., Nakaegawa T., Pinzon R., Nakayama K., and O. Arakawa, (2013): "Hydroclimate projections for Panama in the late 21st century", Hydrological Research Letters, 7(2), 23-29.
Fajnzylber P., Guasch L., Lopez H., ed., (2010): "Does the Investment Climate Matter? Microeconomic Foundations of Growth in Latin America, The World Bank and Palgrave Macmillan, 346 pp.
Ferreira F., Messina J., Rigolini J., Lopez-Calva L., Lugo M., Vakis R., (2013):"Economic Mobility and the rise of the Latin American middle class", The World Bank Latin American and Caribbean studies, 203 pp.
Ferrer D., Fisher E., Roach G., Macera G., Chellew G., Giménez I., Gasteazoro R., (2014): "Finanzas públicas: Diagnostico y propuestas", Fundacion para el desarrollo económico y social de Panama.
Garcia-Penalosa, C. and Turnovsky, S. (2004): "Macroeconomic Volatility and Income Inequality in a Stochastically Growing Economy", conference volume of "Economic Growth and Income Distribution: On the Nature and Causes of the Wealth of Nations," conference held in Lucca, Italy, June 16-18.
Gill, S., Ivailo I., Willem van E., Donato De R., (2014): "Diversified development : making the most of natural resources in Eurasia". World Bank.
Gordillo D., Stokenberga A., Schwartz J., Jordan, (2010): "Understanding the Benefits of Regional Integration to Trade: The Application of a Gravity Model to the Case of Central America", World Bank Policy Research Working Paper Series, World Bank.
Guevara J., (2008): "Panama in 2007: Economic growth, social combustion, and institutional catalepsy", Revista de Ciencia Política, Volumen 28, Numero 1, 305-328.
Hausmann, R., Pritchett, L., and D. Rodrik (2005):"Growth Accelerations", Journal of Economic Growth, Springer, vol. 10(4), pages 303-329, December.
Huang H., Fang W., Miller S. (2012): "The Effect of Growth Volatility on Income Inequality", University of Nevada Working Paper.
Instituto Nacional de Estadísticas y Censo, 2007 to 2013. "Encuesta del Mercado Laboral", Contraloria, Panama.
Instituto Nacional de Estadística y Censos 2000, 2010 "Censo nacional de población y vivienda", Contraloria, Panama.
Instituto Nacional de Estadísticas y Censo, (2014): "Cuadro 9. Panamá. Estimaciones proyecciones de la población total, Provincia y Comarca Indígena, según sexo y edead: al de julio de 2000-"30", http://www.contraloria.gob.pa/inec/Publicaciones/Publicaciones.aspx?ID_SUBCATEGORIA=10&ID_PUBLICACION=491&ID_IDIOMA=1&ID_CATEGORIA=3, downloaded October 13, 2014.
Inter-American Development Bank and World Bank, (2012): "Public Expenditure and Financial Accountability (PEFA)", 136 pp.
International Monetary Fund, (2011): "Financial Sector Assessment Program Update. Panama Draft Aide-Memoire", 56 pp.

International Monetary Fund, (2014): "Panama: Report on Observance of Standards and Codes on the FATF Recommendations for Anti-Money Laundering and Combating the Financing of Terrorism", IMF Country Report 14/55, 19 pp.

Klytchnikova K., Dorosh J., (2013): "How Tourism Can (and Does) Benefit the Poor and the Environment: A Case Study from Panama". World Bank, Washington, D.C.

Latin America Public Opinion Project, (LAPOP) 2004, 2006, 2008, 2010 and 2012. Constructed Panel downloaded from http://www. vanderbilt.edu/lapop, November 2013.

Loayza N., Fajnzylbe P., Calderon C.,(2004): "Economic Growth in Latin America and the Caribbean: Stylized facts, explanations, and forecasts". Central Bank of Chile Working Paper 265.

Loayza N., Raddatz C., (2010): "The composition of growth matters for poverty alleviation", Journal of Development Economics, 93, 137-151.

Loayza, N., Ranciere, R., Serven, L., Ventura J. (2007):" Macroeconomic Volatility and Welfare in Developing Countries: An Introduction", The World Bank Economic Review, Vol. 21, No. 3, pp. 343–357.

Maloney W., Rodriguez-Clare A., (2007) "Innovation Shortfalls", *Review of Developing Economics*, 11(4), 665-684.

Nakayama K., Beitia C., Vallester E., Pinzon R., Fabrega J., Nakaegawa T., Maruya Y., Espinosa J., Olmedo B., Kato J., and K. Komai, (2011): "Increase in simple precipitation intensity index in Panama", Annual Journal of Hydraulic Engineering, Vol 2011.

Pagano A., Light M., Ungos R., Sanchez O., and Tapieros E. (2012): "Impact of the Canal Expansion on the Panamanian Economy", Maritime Policy and Management, Vol. 39, No.7, pp. 705-722

Primola C., De la Guardia E., De Ycaza F., Barría Y., Kelly M., Urrutia V., (2013): "Politica energética: Diagnostico y propuestas", Fundacion para el desarrollo económico y social de Panama.

Seidel B., (2010): "The causes and limits of the recent economic growth in Panama". Berlin School of Economics of Law.

Swiston A., Barrot L., (2011): "The role of structural reforms in raising economic growth in Central America", IMF Working Paper 11/248, 21 pp

United Nations Office of Drugs and Crime, (2013): "Statistics Online", https://stats.unodc.org

United States Department of State (2013). "Panama 2013 Crime and Safety Report", OSCA, July. https://www.osac.gov/pages/ContentReportDetails.aspx?cid=14201

USG-GOES, (2011): "Partnership for Growth: El Salvador Constraints Analysis", Millenium Challenge Corporation, Washington, D.C.

World Bank, (2011): "Crime and Violence in Central America : A Development Challenge - Main Report". World Bank. https://openknowledge.worldbank.org/handle/10986/2744 License: Creative Commons Attribution CC BY 3.0.

World Bank (2013). "Growth Volatility in Paraguay—Sources, Effects, Options", World Bank, Washington D.C., forthcoming.

World Bank, (2008): "Panama Country Environmental Analysis".

World Bank, (2011): "Panama poverty assessment : translating growth into opportunities and poverty reduction", Report No. 62955-PA, World Bank.

World Bank, (2014): Social Sector Expenditure and Institutional Review Data Base.

World Bank, (2014). "Night Lights Data",

http://geowb.worldbank.org/portal/apps/OnePane/swipe/index.html?webmap=674a46aa308f43c7bd340fb26cbad811,8a9227075dcf4d3893611310596bbf71
World Bank, (2014): World Development Indicators.
http://data.worldbank.org/products/wdi
World Bank, (2014): "POVCALNET".
http://iresearch.worldbank.org/PovcalNet/index.htm
World Bank (2014c). "Los Pueblos Indígenas en América Latina: Balance político, económico y social al término del Segundo Decenio Internacional de los Pueblos Indígenas en el Mundo" Washington, D.C.
World Bank (2014d). "Panama Gender Note", Latin American and the Caribbean Poverty, Gender and Equity Unit (LCSPP), mimeo.
World Bank (2015):"The Rise of the South", Flagship report of the Chief Economist Office of the Latin America Region, 2015.

Annex 1: Team engagement and consultation process

The SCD core team followed a highly inclusive process in the development of the final product and the elaboration of the diagnostics. In this annex, the collaborative steps followed towards the preparation of the draft document are detailed.

TEAM COLLABORATION STEPS

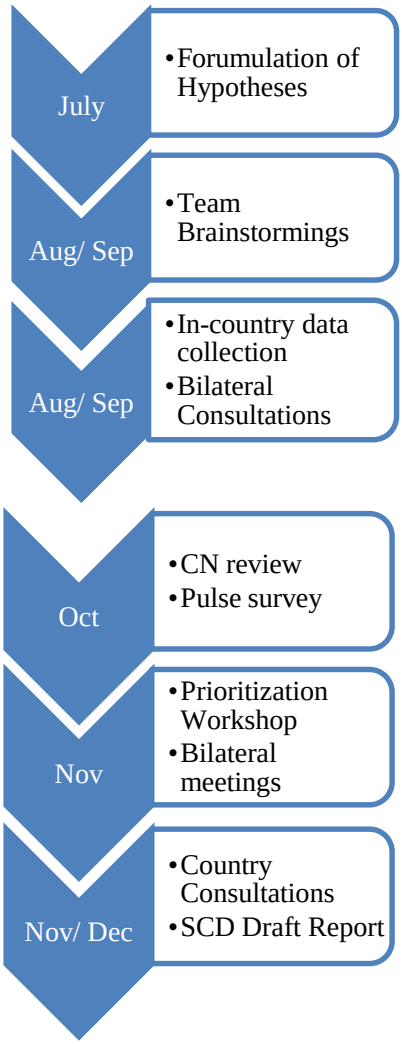
Formulation of hypotheses: The SCD preparation process started with the formulation of a set of 13 general hypotheses around key areas for Panamas growth and poverty reduction patterns based on the review of the literature. The country team and key specialists in specific areas provided feedback and comments on their validity as well as additional information to substantiate, refine or change these hypotheses, or to dismiss them.

Brainstorming sessions: the SCD team held two broad brainstorming sessions in which the participants discussed: (i) the revised hypotheses and propose means of analyzing the knowledge gaps; and (ii) a draft of the overall SCD storyline, that translated the hypotheses into a full structure around growth, inclusiveness and sustainability following the SCD guidelines.

Bilateral consultations: Several rounds of bilateral consultations with sectorial teams were held to focus on the remaining knowledge gaps that could be filled prior to the elaboration of the overall storyline.

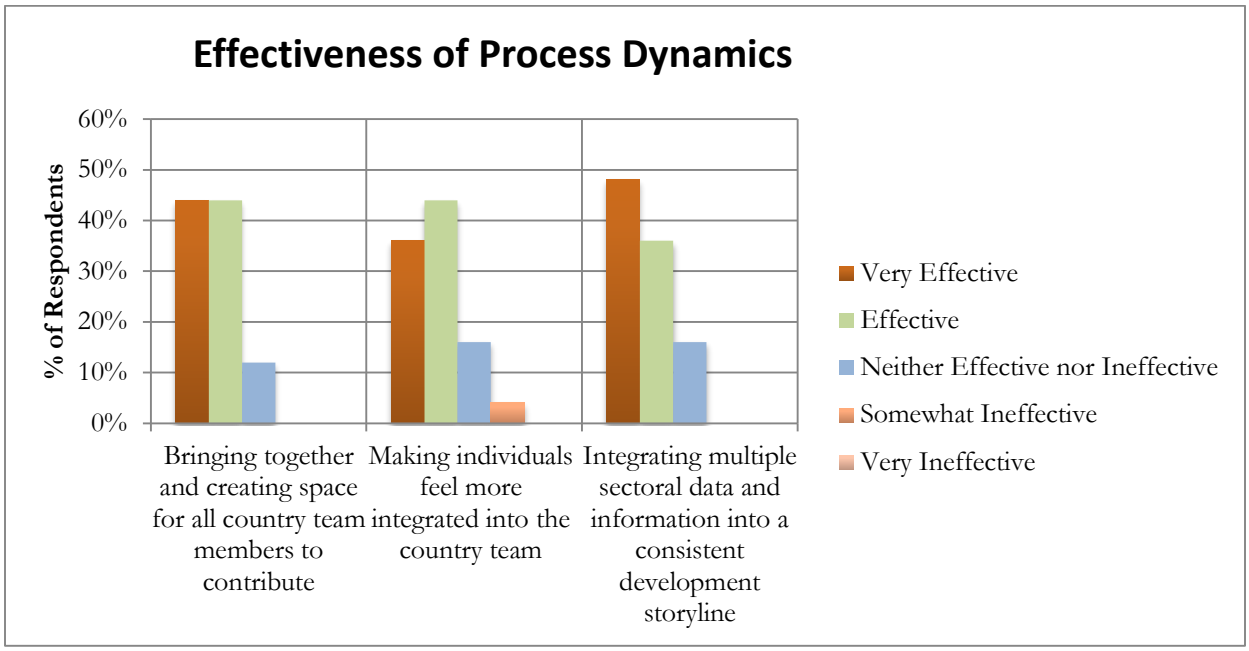
Pulse Survey: A pulse survey was administered mid-way through the process to get specific feedback from the broader team on the approach taken to team engagement and the value of the SCD exercise to staff working on Panama. Feedback received[104] shed light on areas of strength in team collaboration, while providing guidance on possible improvements going forward.

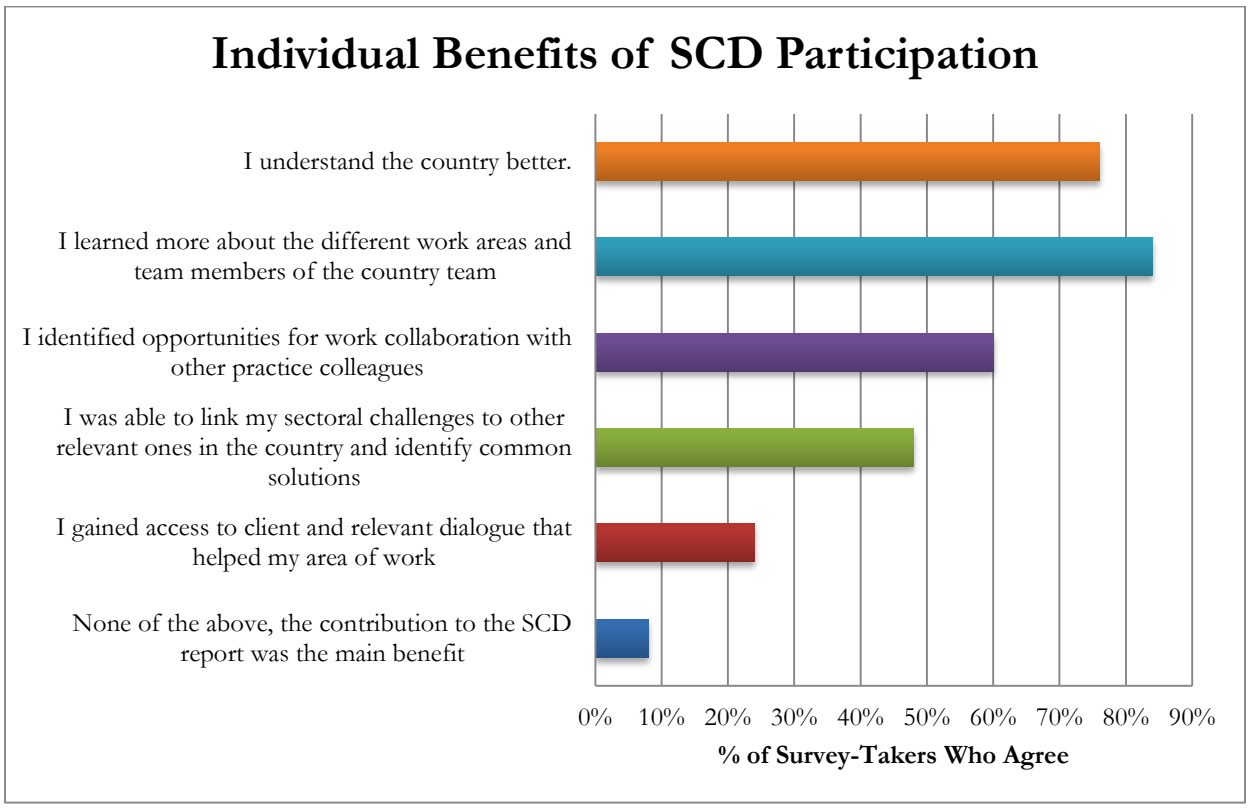
Prioritization workshop: A facilitated workshop with the broad Panama Team was held with the objective of soliciting inputs on identified opportunities within the five identified priority areas using the SCD prioritization filters. The workshop resulted in five elaborated matrices of key opportunity areas within and across the themes.



RESULTS OF PULSE SURVEY

[104] 31 respondents from GPs, CMU, IFC and others, for a response rate of 45 percent


Effectiveness of Process Dynamics
% of Respondents
60%
50%
40%
30%
20%
10%
0%
Bringing together and creating space for all country team members to contribute
Making individuals feel more integrated into the country team
Integrating multiple sectoral data and information into a consistent development storyline
Very Effective
Effective
Neither Effective nor Ineffective
Somewhat Ineffective
Very Ineffective


Individual Benefits of SCD Participation
I understand the country better.
I learned more about the different work areas and team members of the country team
I identified opportunities for work collaboration with other practice colleagues
I was able to link my sectoral challenges to other relevant ones in the country and identify common solutions
I gained access to client and relevant dialogue that helped my area of work
None of the above, the contribution to the SCD report was the main benefit
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
% of Survey-Takers Who Agree

ENGAGEMENT WITH PANAMA

The SCD preparation was accompanied by a consultation process in Panama to ensure that all key stakeholders provided inputs into the deliberations and shared early findings. Two preparation missions were conducted during the period of August 25-29 and September 29-Oct 3, 2014, in which the SCD team held meetings with counterparts in Panama from the Government, private sector, academia and think tanks to get their views on the growth pattern of Panama and its performance in various dimensions over the past decade.

Following the Concept Note review, a series of consultations were held from November 17th to 20th, 2014 and in early December with a broad range of stakeholders (see Table). During these consultations, preliminary findings and emerging priority areas were discussed. Viewpoints of the different constituencies largely confirmed the main storyline and provided feedback and inputs that assisted in particular with the political economy context discussions of identified opportunities under the focus themes.

Consultation Participants	
GOV. SECTOR REPRESENTATIVES	**CIVIL SOCIETY ORGANIZATIONS**
WATER	Asociación Nacional para la Conservación de la Naturaleza (ANCON)
Ministerio de Salud (MINSA)/Dirección del Sub-Sector de Agua Potable y Alcantarillado Sanitario (DISAPAS)	Centro de Estudios y Acción Social Panameño (CEASPA)
Ministerio de Salud (MINSA)/Dirección de Planificación (DIPLAN)	Fundación Natura
Instituto Nacional de Acueductos y Alcantarillados Nacionales (IDAAN)	**PRIVATE SECTOR**
ENERGY	***MINING***
Secretaría Nacional de Energía (SNE)	Cámara Minera de Panamá
Autoridad Nacional de los Servicios Públicos (ASEP)	Consejo Nacional de la Empresa Privada (CONEP)
LOGISTICS	***CONSTRUCTION***
Ministerio de Comercio e Industrias (MICI)	Convivienda
EDUCATION	Costa Verde
Ministerio de Educación (MEDUCA)	Ingeniería Carpen
SOCIAL PROTECTION	***TOURISM***
Ministerio de Desarrollo Social (MIDES)/ *Programa Red de Oportundidades*	Fundación Panamá Viejo Fundación Amador
Ministerio de Desarrollo Social (MIDES)/ *Programa 120 a los 65*	***BANKING***
Ministerio de Desarrollo Social (MIDES)/ *Programa Ángel Guardián*	La Hiptecaria
Ministerio de Desarrollo Social (MIDES)/Secretaría Técnica del Gabinete Social	Multibank
MINISTRY OF ECONOMY AND FINANCE	Inversiones Bahía
Dirección de Crédito Público (DdCP)	Superintendencia de Bancos
Dirección de Programación de Inversiones (DPI)	***TRANSPORT & LOGISTICS***
Dirección de Inversiones, Concesiones y Riesgos del Estado (DICRE)	Zona Libre de Colón
Dirección de Análisis Económico y Social	Manzanillo International Terminal
Dirección de Políticas Públicas (DPP)	Cámara Marítima de Panamá

Dirección de Cooperación Técnica Internacional **Dirección de Gestión Administrativa de Proyectos**	**AFRODESCENDANTS GROUPS** Alianza para el Desarrollo e Innovación de los Afropanameños y Fundación Arnold Walters (ADINA/FAW)
INDIGENOUS PEOPLES	Sociedad de Amigos del Museo Afroantillano (SAMMAP)
Plan de Desarrollo de Pueblos Indígenas de Panamá **Technical and Legal Experts**	Consejo Nacional de la Etnia Negra (CONEN)
Mesa Indígena	Comisión Nacional Contra la Discriminación (CNCD)

Annex 2: Definition of Peer Countries

In order to compare Panama's performance and structural features, the team has selected six comparable groups of peers: Central American countries, Latin American peers, upper middle income countries, the World, structural peers, and aspirational peers. In the case of the former two, both groups were selected using the 'Find your friends' tool, which is mainly based on the World Economic Outlook database.

STRUCTURAL PEERS

Under this classification, countries with similar characteristics to Panama were aggregated, using the following criteria for the period 2001 - 2013:

- Population between 1.0 and 12.0 million
- No land-locked
- No fragile state
- GDP per capita between 4,000 and 13,000
- Direct Investment as a share of GDP higher than 3.5 percent
- Credit rating higher than BBB-

This classification delivers the following group of countries:

Structural peers	Population (million)	GDP per capita	Direct Investment	Credit rating
Bulgaria	7.20	4975	10.3	BBB
Costa Rica	4.86	6438	4.6	BB
Croatia	4.28	11542	3.9	BB+
Dominican Republic	10.60	4228	4.0	B+
Panama	3.79	6407	7.8	BBB
Uruguay	3.40	8566	4.6	BBB-

ASPIRATIONAL PEERS

Under this classification, countries that may be used as good examples of development for Panama and that Panama may emulate are aggregated using the following criteria for the period 2001 - 2013:

- GDP per capita higher than 8,000 dollars
- GDP growth higher than 3.5 percent
- Inflation below 4.5 percent
- Investment to GDP higher than 20 percent
- Non commodity exporters
- No land-locked

This classification delivers the following group of countries:

Aspirational peers	GDP per capita	GDP growth	Inflation	Investment to GDP
Hong Kong SAR, China	29810	3.9	1.4	22.4
Estonia	12702	4.0	4.3	28.2
Korea	18145	3.9	3.0	28.4
Lithuania	10089	4.6	3.0	21.0
Panama	6407	7.2	3.2	21.5
Singapore	36840	5.4	2.2	24.3
Taiwan, China	16796	3.6	1.0	20.8
United Arab Emirates	38693	4.1	4.4	21.9

OTHER PEERS

The other 4 comparable groups (Central America, LAC, Upper middle income, and the World) are directly obtained through the 'Find my friends tool'.

Annex 3: Matrices of Identified Opportunities

ENERGY

OPPORTUNITIES NAME	**Managing (reducing) national energy demand**	**Modernizing (coordination/streamlining) the institutional framework in energy**	**Increasing power generation via renewables and other clean energy options**	**Increasing domestic transmission and cross border transmission**	**Improving rural energy services**
IMPACT ON TWIN GOALS	Reduces the need for new production and transmission lines, freeing up resources for social spending; reduces environmental and social implications, reduces brownouts and rolling blackouts favoring business and protecting jobs and labor earnings	Contributes to greater sustainability of the energy sector, and therefore increased competitiveness; could improve energy efficiency, reducing costs to government; improving quality of service delivery and expanding access to electricity among the poor	Lowers costs to government, frees up resources for social spending; increases private sector investment; reduces local and global environmental emissions; improve reliability of the power system	Enables increased access to lower cost generation, therefore reduces government expenditures, frees up resources for social spending; Greater reliability in energy delivery, increases private sector investment	Provides services to communities that have had no electricity; Affect health care services delivery; improve respiratory health as people move away from reliance on wood for cooking; improve delivery of educational services; create opportunities for rural business development and investment through providing a supply of energy, insuring communications
TIME HORIZON	Short term	Short to medium term	Medium to long term	Medium Term	Medium to Long term
COMPLEMENT-ARTIES	Reducing government subsidies could free up resources for improving basic/social services	Opportunity to address framework for dealing with environmental and social issues (serving other similar sectors)	Reducing government subsidies could free up resources for improving basic/social services	Reducing government subsidies could free up resources for improving basic/social services	Increased access to basic infrastructure in rural communities contributes to rural commerce and agricultural opportunities that can help limit impacts associated with urbanization
EVIDENCE-BASED	A strict national demand reduction program in Brazil (2001-2002) successfully led to 20% reduction in demand	Effective governance – institutions, policies and regulations – creating the conditions for markets, including attracting	High confidence as evidenced by the increased expenditures of the government through subsidies	Moderately confident. Relationship between improved transmission/interconnection reduces dependence	Evidence regarding lack of electricity coverage in rural areas/*comarcas* is strong and result in the lack of economic

	avoiding brownouts and blackouts. Also, UK BIT studies have shown impact using behavioral economics; Davis, Fuchs and Gertler 2014 showed that energy inefficient appliance buybacks in Mexico were an expensive way to do this; energy crises in Brazil and other countries have been effectively mitigated through a reduction in consumption, thereby avoiding excess dependence on expensive emergency power generation	investments and transparent competition, contributes to economic growth and access. (World Development Report 2002 : Building Institutions for Markets; https://openknowledge.worldbank.org/handle/10986/5984)	brought on by increased reliance on high cost emergency power stations. Renewable energy systems, including utility scale wind and solar photovoltaics , and natural gas power, have lower levelized costs than oil fired power generation (source: European Commission report http://ec.europa.eu/energy/studies/doc/20141013_subsidies_costs_eu_energy.pdf)	on high cost emergency power stations. In Brazil, expanded transmission systems enabled rapid development of alternative power generation sources including wind, solar and biomass; resulting in diversified energy portfolio with greater energy security and lower long term levelized costs.	development. Global evidence suggests social and economic benefits of electrification including in Brazil, China, India, Mexico and South Africa. (http://www.iea.org/publications/freepublications/publication/rural_elect.pdf)
POLITICAL FEASIBILTY	Reduction in wasteful energy consumption resulting from a shared community response leads to lower energy related expenditures thereby freeing resources for other spending	Transparent and effective coordination among energy institutions contributes to greater confidence among consumers and investors	Affects the budget and thus puts this activity in conflict with other sectoral priorities; Environmental and social issues as new generation could cause pollution and or use lands that are in indigenous areas or of importance for biodiversity	Affects the budget and thus puts this activity in conflict with other sectoral priorities; Environmental and social issues as new transmission lines will cross national parks, biodiversity areas and lands of IP	Contributes to strengthened relationships with rural and indigenous communities
ESSENTIAL PRE-CONDITIONS	Yes. Offers least cost option to reduce energy prices thereby enabling increased access and supporting business/industrial growth and ultimately economic development	Yes. Key factor enabling investments in other aspects, including generation, transmission, efficiency, and access	Yes. Reliable cost effective electricity is essential to power industry and commerce which enable economic development	Yes. Reliable cost effective electricity is essential to power industry and commerce which enable economic development	Yes. Access to modern energy services is an essential precondition for basic services including lighting, refrigeration, cooking, and health care

EDUCATION/SKILLS

OPPORTUNITIES NAME	Strengthening targeted public/private technical education to better respond to labor market demands	Strengthening monitoring and evaluation of education with goal of improving quality	Increasing payments of the CCT program *Beca Universal* differentiated by student grade level (three cycles) to address high drop-out rates in secondary education
IMPACT ON TWIN GOALS	Increases employment opportunities for youth and increases income generation	Improves indirectly the quality of the education system and labor skills	Increases job opportunities for youth, reduce poverty
TIME HORIZON	Short to medium: Introduction of vocational training and bilingual education, revision of high school certificates Medium to long: Impact on labor market outcomes	Short-term: Participation in 2015 PISA testing Analysis of high school drop-outs with existing administrative data Long term: Establishment and application of monitoring and evaluation framework	Short – Medium term
COMPLEMENT-ARTIES	Increased investment attractiveness Virtuous cycle of jobs creation Enhanced competitiveness productivity	Attract investment in education	Enhanced social assistance for poor
EVIDENCE-BASED	Good results in other countries such as France and Germany, failure of traditional Education system to prepare youth. Literature: Mejores Empleos en Panamá: El Rol del Capital Humano (WB 2012), Technical Vocational Education and Training – Mapping Institutions and Policies (WB 2014)	Countries that participate in PISA have evidence of the quality of their education system	School subsidies for the poor: Evaluating the Mexican Progresa Program (Schultz 2004) The impact of the *Bolsa Escolar/Familia* CCT program on enrollment, dropout rates and grade promotion in Brazil (Glewwe and Kassouf 2012)
POLITICAL FEASIBILTY	Market open for private services provision	The country didn't participate in the last round	Government has taken first steps
ESSENTIAL PRE-CONDITIONS	Included in Government's priority programs	Link CCT beneficiaries to productive training	Included in Government's priority programs

PUBLIC SECTOR INSTITUTIONS: TRANSPARENCY

OPPORTUNITIES NAME	Meeting Global Forum standards on tax and financial information sharing (OECD grey list)	Improving public procurement practices
IMPACT ON TWIN GOALS	Mitigates reputational risks to avoid potential declines in foreign deposits, insurance premiums and activities related to legal and accounting services. By improving transparency and meeting international standards Panama will help to ensure the continued high levels of FDI it depends on (in the absence of a developed stock market) . Continued poverty reduction and shared prosperity depends critically strong levels of FDI, especially in the short term.	Increases accountability and transparency and reduces transaction costs. Improving the public procurement practices will improve the monitoring and evaluation of public investment and spending, improving the efficiency of public spending. Such efficiencies free up resources which can be used for strengthening the social assistance programs of the government that help move people out of poverty in both the present and the future (in the latter by breaking the cycle of poverty: Red de Oportunidades).
TIME HORIZON	Short: Changes in regulations and procedures Medium: A more complete revamping of the information sharing system	Medium to long: Improvements of existing regulations to better accommodate public investment project.
COMPLEMENTARITIES	Improving Panama's standings in the international community can have spillover effects on major infrastructure projects due to the link to the continued presence of high levels of FDI in the country. Of particular importance is for the energy sector where resolving transmission line and generation shortages will require strong investments.	Improving the public procurement system can increase the quality of services delivery; enhancing both the inputs to the services, affecting the timeliness of the procurement process itself and lowering costs.
EVIDENCE-BASED	There is evidence from OECD countries but the potential impacts for Panama need to be assessed.	Evidence from other countries including Peru and Argentina, Literature: Panama: Enhanced Public Sector Efficiency Technical Assistance Project, Report No. 59159-PA

POLITICAL FEASIBILTY	There has been some movement on this front but it is not clear that the political will needed to push this agenda forward is in place.	Substantial work has been done to date by the government. The country has moved to the use of framework agreements, thereby complying with Law 22 of 2006 (although the complex infrastructure projects of the recent years have highlighted weaknesses in these agreements) and generating savings in time, price and transaction costs. An e-procurement platform, PanamaCompra, has been integrated with other systems (DGI and Ministry of Industry and Commerce). There remains, however a substantial agenda, particularly the need to shift more purchases to the PanamaCompra system.
ESSSENTIAL PRE CONDITIONS	Yes	Commitment of the Minister of Finance and *Secretaría de Presidencia*. Technical cooperation across government entities.

PUBLIC SECTOR INSTITUTIONS: EFFICIENCY OF PUBLIC SECTOR MANAGEMENT

OPPORTUNITIES NAME	Introducing performance informed budgeting (PIB) accompanied by better coordination between different Government plans/entities	Developing effective municipal (and metropolitan) institutions needed for decentralization and transfer of governmental functions	Improving fiscal management including the modernization of financial planning, debt management and fiscal risk from disasters
IMPACT ON TWIN GOALS	Allows for strategic allocation of resources to policy priorities, thus facilitating focus on achievement of results on better services to citizens' special programs for disadvantaged, etc. The coordination between different Government plans/entities allows defining priorities among competing policies and taking into account impact of programs on each other	Enhances efficiency of spending towards high priority economic and poverty reduction programs. Supports service provision and ability for economic planning to marginalized communities and rural/ remote areas, and competitiveness of urban economic agglomerations	Frees up fiscal resources for priority service delivery and social protection programs with direct impact on the poor
TIME HORIZON	Medium: Developing and implementing a PIB approach in the MEF and line ministries Long: Better alignment of government expenditure (both operational and investment) with policy goals	Short: Implementation of Law 37 of 2009 Medium: Capacity building under new framework and design of metropolitan coordination structures	Short: Introduction of financial planning information technology tool, Measures to increase liquidity in the domestic debt market, formulation of a strategic plan for fiscal risk management of disasters Medium: Full-fledged modernization of financial planning, Implementation of improved fiscal management practices
COMPLEMENTARITIES	Better management of government programs and strengthened accountability of public administration for results Better coordination helps reduce inefficiency in resource allocation, and avoid duplication of functions and activities across the government. Effective coordination facilitates coherence and transparency within the government	Rural and local services in water supply and sanitation, education, IP economic opportunities	Improved transparency, increased resilience, improved public procurement, more resources available for priority social programs and services

EVIDENCE-BASED	Performance Informed Budgeting has been implemented in the majority of OECD countries through program budgeting approach Outside the advanced OECD countries with multiple examples of central coordination systems for design, implementation and monitoring implementation of important government policies, e.g. UK, Canada, emerging economies have improved their performance through better coordination, including Brazil, Chile, Colombia, Costa Rica, Lithuania, etc.	Successful local municipal development programs implemented in countries such as Chile, Colombia, Indonesia, or Tunisia demonstrate the improvement in planning, investment financing, service delivery, citizen engagement and central government oversight and	IMF Article IV (IMF 2014) Panama – Disaster Risk Management Development Policy Loan with a Catastrophe Deferred Drawdown Option No. 60719 (WB 2011) Non Lending Technical Assistance on Debt Management (WB NLTA 2010) Public Debt Markets in Central America, Panama and the Dominican Republic (IMF 2007)
POLITICAL FEASIBILTY	There is a strong commitment to better management of government programs on the part of MEF (*Dirección de Políticas Públicas, Dirección de Programación de Inversiones*). DIPRENA declares its commitment to the objective however requires substantial capacity building	High	High
ESSSENTIAL PRE CONDITIONS	Yes	Yes	Yes

PUBLIC SECTOR INSTITUTIONS: ADEQUACY OF REGULATORY FRAMEWORK

OPPORTUNITIES NAME	Adopting modern mining regulatory framework to promote adequate oversight, benefit sharing and environmental/ social sustainability	Enforcing consistent social and environmental safeguards regulation and standards across sectors	Strengthening financial sector regulation
IMPACT ON TWIN GOALS	Contributes a potential share of GDP up to 10 percent. Contribution to budget through royalties and concessions. Adequate benefit sharing towards bottom 40 percent	Ensures sustainability of present investments, adequacy of natural resource base for future growth. Safeguards the rights of marginalized groups and reduces social conflict.	Ensures resilience of financial sector to a range of potential shocks, support sustainable expansion of financial services to excluded populations.
TIME HORIZON	Tension in terms of timing: Short: Investment opportunities Medium: Coherent framework and institutional structure	Short to Medium	Medium
COMPLEMENTARITIES	FDI, fiscal, growth, export, environment, social inclusion., particularly of IP	Direct link to infrastructure, territorial planning and extractive sectors. Resilience to Natural Disasters. Support FDI	Links to fiscal, growth, infrastructure finance, social inclusion
EVIDENCE-BASED	Literature: Stanley, M. and E Mikhaylova, 'Mineral Resource Tenders and Mining Infrastructure Projects Guiding Principles', Extractive Industries for Development Series #22, September 2011,	EPA/ OECD/ WB models for environmental impact assessment and social safeguard policies in large transport, hydropower, mining industry, coastal developments demonstrate mitigation of risk	Sound financial systems bolster sustainable growth
POLITICAL FEASIBILTY	Ongoing dialogue with civil society (*mesa rotonda*) brought 54 agreements, however concerns need to be addressed under strong political championship.	Medium. ACP model for Canal related infrastructure can serve as model.	Medium: Political will uncertain.
ESSSENTIAL PRE CONDITIONS	Yes	Yes	Yes

INDIGENOUS PEOPLES

OPPORTUNITIES NAME	Increasing the quality, access and cultural pertinence of health and education services in indigenous communities (within and outside *comarcas*)	Supporting the economic development with identity especially in relation to traditional agriculture; payments for environmental services; robust benefit sharing arrangements; and sustainable tourism.	Strengthening and Formalizing Indigenous Peoples' participation in Government decisions and processes that concern them
IMPACT ON TWIN GOALS	Increases access and health service delivery: (i) food & nutrition; (ii) Maternal and child health with high quality & cultural pertinence. Increase multicultural education Revitalize IP cultures Reduce catastrophic health expenditures	Increases potential for income generation for both extreme poor and poor, especially if specific focus on women is included.	Improves effectiveness & cultural pertinence of investments w/ IPs, while improving Indigenous women's agency should contribute to reducing poverty and increasing shared prosperity
TIME HORIZON	Short: Access Medium: Quality Long: Cultural pertinence	Medium – long term	Short: Laws Medium: Capacity
COMPLEMENTARITIES	• Social protection (conditional cash transfers, school scholarship program) • Water & sanitation • Infrastructure (access to) • Youth leadership • Crime prevention • Performance bared budget for health – catastrophic insurance Social protection (conditional for the Indigenous Peoples) • Monitoring water and epidemiology • Gender-specific interventions	Empower IPs resources owners as partners in national development & competitiveness.	National Energy and Resource needs: This would create a platform to build trust and work strategically with IP on projects of national importance. It would do so by officially recognizing their territorial authorities and providing an opportunity for their direct engagement in the planning and implementation of policies, programs, and projects that affect/benefit their communities. Better management of NRM Youth leadership Reduce social conflict Social cohesion
EVIDENCE-BASED	Health: The IP Development Plan cites an 2010 IDB study, breaking down the factors that have affected indigenous peoples access to health: 11.3% did not demand health services due to their cost; 64.2% due to the long distances to a health center; 44% due to lack of transportation, as well as having felt mistreated by the health staff	Norway, Canada , Peru, Australia , Alaska Programa para el Desarrollo Empresarial Indígena: While there has not been a comprehensive evaluation of outcomes, the program supported several Indigenous cooperatives and companies develop, improve, and commercialize their products	Government to IP Results internationally Canada, Brazil, Bolivia Present indicators of poverty in IP areas demonstrate lack of effectiveness in investments Baseline investment data in IP territories.

	and low participation in program design. Moreover, cultural differences and language limitations limit health education. Only 20% of the population has health insurance, compared to 50% of the non-indigenous population. Generally the study concludes that the IP population generally does not use health services when they are sick or injured." Reference: *Plan Nacional de Desarrollo Integral de los Pueblos Indígenas en Panama* citing, BID. *Inclusión Social en Panamá: La población indígena.* Julio 2010. P. 21 Education: The Plan cites a Save the Children study on school drop out rates by age group. Only 65% of Ngäbe and Buglé children between 6 and 12 years old attend school, regardless of where they live; 43% of children between 13 and 19 and 7.5% of youth between 20 and 24.	(coffee, forestry, cacao, honey, handcrafts, etc) Video available online. Costa Rica, PES = US$3 million per year to IP communities for 10 years + new anteproyecto de ley to regulate Payments for Environmental Services (appears to currently be in the Assembly) presented in Aug. 2014	We could review the results from the multi-sectoral program financed by IADB in Panama in Darien
POLITICAL FEASIBILTY	Health: Resuelto N° 4376 del 25 de agosto de 1999, Ministerio de Salud, Medicina Tradicional, *Gaceta Oficial* N° 23,880, 7 de septiembre de 1999 The Ministry of Health has created a unit dedicated to designing culturally pertinent indigenous health public policy. Education: Passing of 2010 Bilingual and Intercultural education Law No. 88 The Ministry of Education's "Muevate por Panama" literacy program has provided literacy training to over 20,000 people in the *comarcas* between 2007 and 2012.	Politically feasible to start with entrepreneurial, tourism, and PES activities. Government and IP championing through IP national devt plan. High levels of mistrust (ej. Martinelli env law reform), internal conflict (ej. Naso King), and historical lack of sharing in benefits of hydro and other extractive industries (ej. Bayano), would make extractives and benefit sharing a more difficult, long term goal.	Yes, IP intersectoral plan, proposed by IP authorities to govt after 2-year internal consultations with govt participation. IP mesa 12 congresses united

ESSENTIAL PRE-CONDITIONS	Health: -Investment in health infrastructure -Supply of needed medicines -Bilingual medical staff -Support for the practice traditional medicine (practiced by traditional healers and midwives). Education: -Implementation of Law 88 by investing state funds, instead of exclusively international grant money. -Staffing schools in indigenous areas (incl. *comarcas*) with teachers who are fluent in the pertinent language and who will allow and encourage speaking the native language. -specialized curriculums -textbooks in indigenous languages -continuous teacher attendance in schools -increased teacher commitment to teach in indigenous schools -Increased accountability of teachers towards parents and students (currently teachers register high absenteeism) -Principals who foster interculturality instead of prohibiting it.	- Baseline mapping of overlap of IPs and key national watersheds/protected areas (to make argument of environmental services being provided). - Close infrastructure and access to financing gaps (especially in transport, WSS, electricity, and productive infra) - Environment of trust - Governance framework effective - Land tenure security - Carried out as part of National Development Plan for IPs with significant participation of IP authorities in design and implementation.	- Law projects approved - New institutions have clear mandate and budget, and support to build capacity - IP National Development Plan moving towards implementation Implementation of Law 72 to finalize pending collective land titling through IP Land Titling Directorate (part of ANATI) formed in 2010

WATER

OPPORTUNITIES NAME	Implementing integrated water resources management plans in selected priority basins outside Canal watershed	Scaling up integrated disaster risk planning coupled with climate adaptation measures	Reducing pollution by improving sewerage treatment capacity and access to quality sanitation services	Streamlining regulatory and institutional functions across Water sector agencies
IMPACT ON TWIN GOALS	Contributes to economic growth (Hydro production, tourism, agriculture)	Reduces income losses from natural disasters, enhances the coping mechanisms and diversifies the economic base for the most vulnerable groups	Sanitation Increases welfare/health Waste (bottom 40%) Drainage Water Sustainability (floods) Treatment Draws in investment	Enhances efficiency of resource allocation and implementation capacity for high priority programs and disadvantaged groups
TIME HORIZON	Short: Planning Medium to Long: Implementation:	Medium to Long	Short: Quality for those with access Medium: New access, community management Long: Quality of life	Medium
COMPLEMENT-ARTIES	• Energy - sustainability of clean energy sources • Indigenous Peoples – ensuring sustainable use of natural resource base	• Hydropower generation • Indigenous People economic opportunities/ livelihoods	• Marginalized groups (rural IP, Colon) • Indigenous population living in urban areas • Crime Violence	Institutional Capacity for Environmental and Social management
EVIDENCE-BASED	Canal Watershed management model has demonstrated that efforts lead to reduced deforestation and efficiency of water consumption by different users	Climate projections forecast increased rainfall as well as increased occurrence of extreme weather events	Integrated urban water management in Medellin (Colombia), Monterrey (Mexico) and Sao Paolo (Brazil) have shown significant improvements	• In 2014 ASEP (Regulatory agency) only drafted 371 resolutions for the WSS sector, compared to 5578 and 7834 in the electricity and telecommunications sector respectively. • Tariffs have not been revised since 1982 (decrease by 50% of adjusted for inflation)
POLITICAL FEASIBILTY	High	High	Colon, Panama Bay and basic sanitation is a national priority for the current government	Medium
ESSENTIAL PRE-CONDITIONS	Yes	No	Yes	

Annex 4: International Finance Corporation – Sector Notes

DATE:	November, 2014
SUBJECT:	PANAMA: Mining Sector Briefing – One Pager

Overview of the Energy Industry in Panama

Although mining has a long history in Panama dating to pre-colonial times, advanced development did not start until in recent years, following the commencement of operations of the Molejon gold mine. Mining in Panama today is a US$553mn industry, representing about 2.1% of GDP. However, FDI in mining stands at just 0.4% of GDP. Current activities include gold (12m oz identified. 68.4k oz produced in 2013, or 35% growth y-o-y, US$116 million in exports, or Panama's top mineral export, going to North America), copper (22.7mnt identified), silver (25,000 oz identified) and molybdenum.

Key Players

The main players are Petaquilla Minerals, Minera Panama, S.A., Minera Cerro Quema, S.A., and Greenfield Resources, Inc. Petaquilla owns the Molejon gold mine in Colon, which is likely to become the primary source of gold output in the years to 2018, per BMI. Minera Panama, S.A., with Canada-based FQM holding an 80% ownership stake, owns the 5,900 ha, US$6.43 billion "Cobre Panama" project, which is expected to come online in 2017, have a mining life of at least 30 years, and produce annual amounts of 320,000 tons of copper, 100,000 oz of gold, 1.8 million oz of silver, and 3,500 tons of molypdenum. FQM's cash costs of copper per latest audited financial reports (2013) were at US$1.30/lb for copper and are an estimated US$1.32/lb-US$1.48/lb for 2014, compared to major copper projects under Barrick Gold Co. in Zambia (US$2.29/lb for the Lumwana mine in 2013, US$1.90/lb-US$2.10/l est. in 2014) and Chile (US$1.60/lb for the Zaldivar mine in 2013). Minera Cerro and Greenfield Resources are planning to invest over US$100 million each in mining projects.

Recent trends

Mining output has more than doubled following annual growth rates of between 20% and 30% since 2008. According to the General Comptroller's Office of the Republic, the mining sector grew 4.6% in 2009 and in 2012 accelerated to 30%, surpassing the construction (29.3%), transportation & telecommunications (11.2%) and financial intermediation (10.2%) sectors. The Comptroller also reported that the value of gold exports declined 96.6% in 2014. Between January and March 2014, only US$1 million was exported, as compared to US$31 million in 2013.

Regulatory Framework and Government Role

Article 257 of Panama Constitution provides for state ownership of minerals and authorizes the Directorate General of Mineral Resources (DGMR) under Min. of Commerce and Industries (MICI) to oversee & grant exploration and/or extraction concessions. **The Code of Mineral Resources of Panama (CMR)** is the main legal body governing activities in the mining sector; it has been amended, abolished and re-established several times. **Law 32 of February 1996** regulates

the extraction of nonmetallic minerals used as building materials to safeguard the integrity of the environment, public works and population centers. **Law 11 of March 2012** followed the 2011-12 Ngäbe-Buglé protests and prohibits mining in indigenous lands (e.g., Cerro Colorado) and requires prior consultation of indigenous authorities for hydroelectric projects. **Law 13 of 2012:** Mining companies must pay minimum 4% royalty for gold & 5% for copper, maximum royalties of 8%, however, companies granted concessions under Law 9 of 1997 (e.g., Pentaquilla Gold) are not legally required to do so. Includes provisions to incentivise investment in local infrastructure projects and social development programs in surrounding communities. The **National Environmental Authority (ANAM)**: Reviews & approves environmental impact studies related to mining concessions and ensuring their compliance in accordance with local legislation. The **National Directorate of Mining Resources (NDMR):** Charged with licensing. Lacks independence and power to influence policy and implement changes, and licensing program is slow, with requests lingering from the 1990s.

Main Challenges, Emerging Opportunities

China growth slowdown likely to drive down copper & iron ore prices in the coming years, could force delays. Rising treasury yields may affect gold projects. E&S issues will be more closely followed, and Petaquilla has faced issues in this area in recent years. Indigenous peoples' resistance to mining in Panama is centered on inadequate consultation, lack of trust and weak transparency, and protets in recent years have revolved around Cerro Colorado, one of the largest porphyry copper reserves known and not exploited worldwide. Cobre Panama does not sit on indigenous peoples land and at present is not a focal point of contention. Cobre Panama is projected to have significant development impacts in the form of investment, job growth, and payments to workers.

Future Perspectives

1. The future of the mining sector is uncertain given the complexities of economic, political and social factors. The only existing large-scale operation is that of Minera Panama (copper) which is in hands of the Canada-based First Quantum Minerals. Other projects are facing serious issues as is the case of the Petaquilla gold mine that has financial difficulties and other minor developments include Minera Santa Rosa that has environmental and social constraints. There is much pressure resting on the success of the Minera Panama to assure the well-being of the industry and its growth for the future.
2. The local IFC team does not foresee significant investment in the sector other than that of Minera Panama, at least in the next five years, given the lack of a strong regulatory framework and the opposition of indigenous and local communities. Public opinion may become positive over time but this will require a strong alliance between the government and the private sector to make sure that royalties paid by mining companies are invested in the communities, and communities are engaged in the projects. Currently, we understand that there is no mechanism of accountability of these royalties and institutional capacity to manage said royalties is also limited.

DATE:	November 2014
SUBJECT:	PANAMA: TRANSPORT AND LOGISTICS Sector Briefing

Overview of Transport and Logistics T&L in Panama

Panama has a network of ports that handle containerized, bulk, liquid and general cargo, as well as passengers in cruise terminals. Panamanian seaports are divided into two groups: state ports and private ports. State ports are operated by the Panama Maritime Authority and provide dockage and other related services for local users and short-sea services. The Panamanian maritime industry represents 20 percent of GDP and is the fastest growing sector in the national economy. Air transport is one of Panama's fastest growing sectors thanks to Panama's Tocumen International Airport. Panama has 27 public and 41 private airports. The main projects in roads and railroads for 2014 onwards are expected to be contracted by the government using turnkey contractual arrangements.

Key Players

The most representative international players that develop, invest, own, and operate the main ports in Panama are Hutchinson Port Holdings from China, SSA Marine a subsidiary of Carrix from Seattle, Evergreen Marine Corporation from Taiwan, China and, PSA a subsidiary of the Port of Singapore Authority. In aviation, the Autoridad Aeronautica Civil de Panama monitors and enforces international regulation for civil aviation. Moreover, Copa Airlines is an important stakeholder of airport development. Copa Airlines is Panama's flag carrier and it is listed in the New York Stock Exchange. In 2013, Copa reported US$2.6 billion dollars in revenue and US$427 million dollars of net income. On the other hand, the Panama Canal Railway Company, a joint venture between Kansas City Southern and Mi-Jack Products provides railroad transportation for passengers and containerized cargo between Panama City and Colon City under a 50-year concession. On roads and infrastructure, in 2010, the National Highway Agency was created after the Government bought ICA's concession of the South Corridor.

Recent Trends

Even though Panamanian ports rank top with the most volume of cargo moved in the region, in 2013, the ports closed with 6 million 561 thousand TEUS or 4.6% less traffic than the previous year due to labor strikes and the decline of exports to Venezuela and Colombia. However, during the first nine months of 2014, Panamanian ports mobilized 5 million 46 thousand TEUS or 1.9% growth when comparing the same period in 2013. The expansion of the Panama Canal will be completed in 1Q16 at a cost of US$5.25 billion, the expanded Canal will double transport capacity from 300 million tons to 600 million tons. In recent years, the Government has invested heavily in expanding Tocumen airport and at the same time opening and integrating with smaller airports throughout the country. Just recently, Tocumen expanded operations with the operations of the North Terminal. This terminal added 21,000 square meters of operational space. Equally important, the trend for construction and development of roads will be strong through government driven initiatives that in some cases might involve concessions. The process allowed international companies to actively compete for these projects and as such, expectations and perceptions are

deemed transparent. Important construction companies such as Odebrecht and FCC have an important portfolio in Panama.

Regulatory Framework and Government Role

Law 80 of 2012 introduced new and updated incentives and regulations related to the hospitality industry, cruise ships infrastructure, convention centers, and marinas among others. The benefits include tax exemptions, import exonerations, certificates and others.

Main Challenges and Emerging Opportunities

IFC's limitation is the fact that the Government is executing the projects under turnkey arrangements so preventing the IFC to invest directly. For this reason, IFC is starting to consider financing solutions for construction companies who are facing constraints in obtaining short/medium term financial instruments. There has been interest from FCC and potentially other construction companies.

Future Perspectives

a. Ports: Given the expectations surrounding the soon-to-be-completed expansion of the Panama Canal, investments to expand in existing ports and launch of potential new ports is expected to continue. While investors perceive Panama positively in this regard given its location and stability, many could choose to wait for the expansion to be completed to determine new opportunities. Value-added logistics services are a rising trend and catering to the increase in Canal traffic will become a key driver in the future as well.
b. Airports & Roads and Railways: Researchers and residents alike believe that Panama is the "construction phase" and this trend will continue to be a key focal point for government driven initiatives. Most concessions are granted to private companies through a transparent bidding process, but designed as turnkey in nature; therefore, financing opportunities for IFC is limited but will continue to attract big international players such as Odebrecht and FCC.

DATE:	November 2014
SUBJECT:	PANAMA: Agro-industrial/manufacturing Sector Briefing

Overview of the Agro-industrial/manufacturing Industry in Panama

The agro-industrial/manufacturing industry has been occupying a relatively marginal position in Panamanian economy, even after the commercial opening with the country's entrance to the World Commerce Organization in 1997. Today, the sector accounts for 5.1% of the total country's GDP, while five years ago, it represented about 7% of the national economy. Its main activities are alimentary (mainly meat, fish, fruit) and beverage products, paper and paper goods, mineral (not metallic) products, elaborations from metal (not reparation), other kinds of transport equipments and furniture. Even though manufactured products do not represent much of the GDP, they comprise around 78% of total Panamanian exports.

Key Players

The main players in the sector include Grupo Melo, Cerveceria Nacional, Rey Holdings, Grupo Calesa, Industrias lacteas, Empresa Panameña de Alimentos, Cochez y Cia, Tubotec, Plastiglas and Papelera Istmeña. Main segmets are agroindustrial, food and beverage, construction material, paper, plastic and PVC goods.

Recent Trends

The agro-industrial/manufacturing industry in Panama registered a 2.7% growth during 2013, mainly driven by construction materials such as cement, lime and plaster, followed by non-alcoholic beverages. Meat production segment, instead, has decreased over the last year. Panama's economy was generally supported by the relative strength of domestic consumption, which was reflected in the dynamism of several agro-industrial/manufacturing and services activities. In particular, according to the IMAE, household demand contributed to the rise in the production of poultry, dairy (each up by 10% year-on-year), and non-alcoholic beverages (up by 9% year-on-year). Households also played a key role in the dynamism of retail activities, such as fuel consumption and car sales (which rose by 9% and 6% year-on-year respectively), as well as in the overall growth of electricity and water production (each up by 4% year-on-year). The forecast for the next 3 years indicates a growth in industrial activity of 8.2%. 4/5% and 3.5% respectively for 2014, 2015 and 2016.

Regulatory Framework and Government Role

The Ministry of Commerce and Industry (MICI) sets the regulatory framework for the industrial and agro-industrial/manufacturing activities, with the purpose of promoting the development of FDI, industrial activity and exports. PROINVEX is an agency for investment attraction and export promotion in Panama, ascribed to the MICI, which manages a One-Stop-Shop Integrated Information System that allows the investors to easily identify all the instruments that the National Government has available for the FDI. The agency is focused on investment promotion in strategic sectors set by the National Government's Strategic Plan 2009-2014.

Several invectives for industry have been implemented in Panama in order to promote FDI, including fiscal exoneration, special and migratory labor benefits, and special customs regime. The whole legal framework includes:

- Law for Investment Stability (Law 54/1998)
- Law of Special Economic Area Panama Pacific (Law 41/July 2004)
- PanamaEmprende (Law 5/January 2007)
- Law for Industrial Promotion (Law 76/November 2009)
- Law for Exports Promotion (Law 82/December 2009)
- New Law of Free Zones (Law 32/April 2011)
- Industrial Promotion Certificate (CFI)

Main Challenges and Emerging Opportunities

The sector has been growing less rapidly than the rest of the economy, decreasing its relative contribution to the total GDP. Exports are a key factor for the strengthening of the sector, given that the market is facing continuous changes and high level of competition. The Panamanian agro-industrial/manufacturing industry's growth over the last years seems to be too dependent on the construction activity, which could be a challenge. Nevertheless, the Government's efforts in promoting industrial activity by creating dedicated bodies and special legislation make Panama one of the most attractive countries in Latin America for doing business. In the most recent Doing Business 2014 Report, it was actually ranked #1 in Central America and #5 in Latin America, which represents a good opportunity for investors.

Future Perspectives

a. Given that more than half of the country's population works in the agro-industrial/agro-industrial/agro-industrial/manufacturing sector, it will continue to be a driver of development as well as a sustainable option for Panama. Local commercial bank financing is readily available for said entities given their successful trajectory in Panama. That being said, two of the major public banks focused on this sector – Banco Nacional de Panama and Banco de Desarrollo Agropecuario – are rumored to be consolidating into one entity which may cause credit delays for those in need and there is also a planned revision of agro-subsidies that would affect credit, but access is nonetheless expected to remain high.
b. In order to remain competitive against other older and more experienced competitors, there is an opportunity for companies to invest in new equipment and methods that would enable processing more efficient.
c. There is potential opportunity for growth in the lactose/dairy business with investments made in technologies that would augment productivity and supply.
d. As with other sectors, ensuring the maintenance of a solid base of talented and skill-specific human capital will be important.

DATE:	November 2014
SUBJECT:	PANAMA: Financial Sector Briefing

Overview of the Financial Industry in Panama

Panama has the largest banking sector in Central America in terms of assets and number of banks, and is considered stable and well regulated. The Panamanian International Banking Center is mainly private and is made up of 48 general-license banks, 29 international-license (offshore) banks and two state-owned banks. Additionally, 13 banks maintain representative branch offices in the country.

Banks are mainly deposit driven (80%), and the second source of funding is credit lines (17%). Total International Banking Center (IBC) assets account for US$118 billion (first semester 2014). Assets of general license banks total US$84 billion, Off-Shore Bank assets total US$22.6 billion, while SOEs hold US$11.1 billion in assets. s of end 2013, the sector accounted for 7.6% of total Panamanian GDP, increasing by 9.6% in 2013.

Key Players

The Banking sector is dominated by the top six banks (Banco General, Banco Nacional de Panama, Banistmo, Bladex, Global Bank and BAC) which together account for almost 65 percent of the market share (based on assets). Of the top six, there are two local banks, one SOE, and the remaining are international banks. The remainders of banks in the sector have less than 5 percent of market share each. Besides banks, there are 575 registered NBFIs (Dec. 2013) with total assets of US$1 billion, 593 Coops with assets totaling US$1.8 billion, and Microfinance Institutions, broken down into many small entities. The insurance market is concentrated, with ASSA, Internacional de Seguros, MAPFRE, Assicurazioni Generali and Aseguradora Ancon as the top players. In the reinsurance market, Panama currently has no significant role, however recent news articles have suggested that Panama will try to position itself as the new reinsurance hub for Central America. Current market participants include Alliance Re Reinsurance Suisse, Barents Re, Colonial Re Reinsurance Company.

Recent Trends

The banking system in Panama has seen a significant change in market participants during the past five years as U.S. and European entities affected by the financial crisis have exited the region, including GE, HSBC and, most recently, BBVA and Citibank. Both the Panamanian Centro Bancario Internacional (CBI) and the National Banking System's assets have been growing over the years.

Regulatory Framework and Government Role

The CBI was formally created in 1970 through Decree N. 238 which reformed the Banking Regime and created the Comision Bancaria Nacional (National Banking Commission) as the supervisory body. In February 1998, Decree 9 was passed to introduce a new regulatory framework and to move away from the self-regulation philosophy that had been the norm in Panama for the previous

two decades. The new legislation established a framework with a regulator having clear powers and financial autonomy: the Superintendencia de Bancos de Panama (SBP), replacing the Comision Bancaria Nacional.

Main Challenges and Emerging Opportunities

There is growing international pressure to increase the exchange of banking information and shut down tax havens has placed Panama among a handful of jurisdictions under increasing regulatory scrutiny. Panama is making relevant efforts to address this pressure, and was removed from Colombia's gray list where it was placed in the first half of October 2014. Panama is also currently evaluating methods to ensure compliance with OECD and GAFI standards to avoid these gray lists as well. That being said, perception regarding Panama's potential incorporation to these lists may affect investor confidence in the country; however, foreign investments have continued to grow.

Future Perspectives

a. Panama's financial sector is growing, has good asset quality, is profitable, and thus attractive for investors. Concerns may arise from potential investors as perceptions regarding potential inclusion in gray lists could possibly reduce investors' appetite for the industry. Nevertheless, it is unlikely that Panama be placed on a gray list in the long term given Panama's considerable work and progress on resolving issues related to the same. Investor confidence appears to remain strong and FDI remains high.
b. Given the large number of players in the market, it is possible that the banking sector may undergo consolidations, and the trend shows growing interest of local banks to also expand operations further in the region.
c. In addition, the insurance market's penetration appears to be low as compared to regional counterparts and there may be some growth opportunities in the insurance and reinsurance markets in the future as Panama seeks to launch itself as a reinsurance hub for Latin America.

DATE:	November 2014
SUBJECT:	PANAMA: Energy Sector Briefing

Overview of the Energy Industry in Panama

The energy sector in Panama has been evoluting significantly since its restructuring and privatization in 1997, when the Law 6/1997 set the regulatory framework for the Panamanian electricity market. Since then, from 984 MW of installed capacity the market has expanded rapidly and now has 2,695 MW (first semester 2014). Historically, the production matrix was supplied by thermal or hydro plants (around 40% and 60% respectively). Today, with the recent installation of a 55-MW wind plant and a 2.4-MW solar plant, the matrix also includes a 2% of renewables (other than hydro), in addition to 42% of thermal and 56% of hydro capacity. The sector accounts for 2.6% of total GDP.

Key Players

The energy sector in Panama is made up of power generation, transmission and distribution. On the generation side, there are three types of companies which compete in an open competitive market: generators, co-generators, and self-generators. This market is mostly private and the main players are: AES Panama', GDF Suez, Enel Fortuna, Panama Canal Authority (ACP), AES Changuinola. Transmission is a natural monopoly and thus regulated. ETESA is a state-owned entity in charge of operation and maintenance of the high voltage transmission network. The system consists of two transmission lines, with the third line currently under construction and the fourth in pipeline. Panama is member of regional grid SIEPAC, of which Costa Rica, Nicaragua, El Salvador, Honduras and Guatemala are also members. There is also renewed interest in the proposed 400-MW interconnection with Colombia (ICP) and the project is at studies/environmental assessments phase. With respect to distribution, there are three regulated service providers, covering different geographic areas of the country: EDEMET, ENSA, EDECHI. These companies are controlled by multinational firms with the State of Panama holding a minority stake. For non-regulated users (demand >100kW), they can either purchase their energy needs through bilateral contracts with prices freely agreed upon parties and/or purchase the service from a distribution company at regulated tariffs.

Recent trends

The power sector in Panama is currently facing a crisis resulting of inefficient regulatory framework, lack of institutional and technical capacity, transmission constraints and a currently, hydro-focused generation that is balanced with expensive liquid fuels during dry seasons. Panamanian spot market prices are the highest in the region, ranging between US$240/MWh and US$300/MWh during the last months.

Regulatory Framework and Government Role

Law 6 of February 1997 and subsequent resolutions set the regulatory and institutional framework for the Panamanian electricity public service. The law states that the Transmission, Distribution and Commercialization of electric energy are regulated, while Generation is not regulated. The

key governing institutions include the Secretariat of Energy (SNE), the Transmission Authority (ETESA), the Distribution Authority (CND) - part of ETESA, and the Energy Regulatory Authority (ASEP) – which rules the electricity market and other public services. Law 11 was enacted in March 2012 granting protection for indigenous groups. Law 11/2012 requires the prior consultation of indigenous authorities or hydroelectric projects. Indigenous groups have argued that Law 11 is limited in its scope in that it does not ban hydroelectric projects in their territory. Other relevant laws include Law 45/2004, Law 44/2011, Law 37/2013, which respectively promote the construction of mini hydros and set tax incentives for the construction of wind and solar plants.

Main Challenges and Emerging Opportunities

The main challenges are centered on Panama's ability to address the consistently-growing energy demand. This includes institutional capacity building and strategy preparation, as well as addressing transmission, generation and distribution deficiencies. On the institutional front, strategic coordination between key existing agencies remains the main challenge.

Future Perspectives

a. Despite the challenges identified above, Panama has a functioning spot market system and a well regulated sector. Though strategic planning as a whole has been a challenge, the future is optimistic as the current administration has expressed their interest in supporting and strengthening the sector. For private sector players, there is a role to construct and operate renewable energy plants to aid in the diversification of the matrix and market rules are quite clear for the same. Transparency in bids is also a positive factor for private investors. Transmission may prove to be an ongoing challenge, but given that line 3 construction is already underway and line 4 is in the design stages to address growing demands, there is reason to believe that certain constraints will be addressed in the mid-term and thus investor confidence is expected to remain high.
b. LNG – There exist opportunities to bring liquefied natural gas to the region with a terminal and processing plant in Panama, which would strengthen regional integration and change the energy landscape, including further driving down of the electricity prices, in Panama in particular. Recently the Panamanian government decided not to renew the concession for the construction of a US$1.2 billion 550-MW LNG plant that had been awarded to a private, local company in 2013, because it was unable to secure financing, as a result of a weak PPA that had been granted in the prior government. Therefore, a key initiative for the current administration is to construct a new PPA and put out a tender in the next 12 months with a bankable PPA.

DATE:	November 2014
SUBJECT:	PANAMA: Tourism Sector Briefing

Overview of Tourism in Panama

Tourism is an important sector for Panama given that the total contribution of Travel & Tourism to GDP was of US$5,829.4 m (13.9 percent of GDP) in 2013, and is forecast to increase by 7.1% in 2014, and by 6.2% p.a. to US$11,383.6 m (15.6% of GDP) by 2024. In 2013, the total contribution of Travel & Tourism to employment, including jobs indirectly supported by the industry, was 13.5% of total employment (234,000 jobs). This is expected to increase by 2.6% in 2014 to 240,000 jobs and grow by 2.7% p.a. to 315,000 jobs in 2024 (15.9% of total). In 2013, Travel & Tourism directly supported 102,500 jobs (5.9% of total employment). This is expected to increase by 2.8% in 2014 and by 2.8% p.a. to 139,000 jobs (7.0% of total employment) in 2024. Travel & Tourism investment in 2013 was US$715.4 mm, or 6.0% of total investment. It is forecasted to increase by 12.1% in 2014 and by 6.0% p.a. over the next ten years to US$1,443.0m in 2024 (6.9% of total).

Key Players

Copa Airlines is Panama's flag carrier and it is listed on the New York Stock Exchange, with Panama serving as the airline's hub out of Tocumen Airport. Copa reported US$2.6 billion dollars in revenue and US$427 million dollars of net income. The Panama Tourist Authority is the government agency in charge of promoting tourism in Panama and at the same time monitoring and implementing the aforementioned incentives. Asociación Panameña de Hoteles (Apatel) is the local hotel association and its main goal is to promote tourism through investments in hotel infrastructure. Finally, Aventuras 2000 is part of Grupo Colon 2000 who owns the cruise port in the Atlantic. Aventuras 2000 manages the entry point at Colon and at the same time provides tourist services throughout Panama.

Recent Trends

Between January and September, 34 operation licenses were granted for new hotels. The combined investment is US$103 million and 90% expected to be built in areas beyond the city. These include Chiriqui, Los Santos and Bocas del Toro. In addition, two luxury hotels will open in Panama in the next couple of years. During the first five months, the number of tourists in Panama increased by 3.5% compared to the previous year. This is approximately 33,860 more tourists than the previous year thus putting the mark over more than a million tourists. Around 42% of tourists that arrive to Panama reside in countries where Spanish is not the official language. During the first eight months of the year, Tocumen International Airport registered approximately 4.884 million passengers. When compared to the previous year, this represents a growth of 9.6%. Out of those passengers, 2.5 million were in transit. In 2013, cruise tourism grew by 11.7 percent, representing approximately 400,000 passengers through 135 cruises. On September 30, Panama inaugurated the first Frank Gehry museum in Latin America. The bio-diversity themed museum aims to replicate the efforts of other cities such as Bilbao that benefitted by the inclusion of unique museums.

Regulatory Framework and Government Role

Law 80 of 2012 introduced new and updated incentives and regulations related to the hospitality industry, cruise ships infrastructure, convention centers, and marinas among others. The benefits include tax exemptions, import exonerations, certificates and others.

Main Challenges and Emerging Opportunities

The city has an oversupply of hotel rooms with an occupancy rate of 56%. As incentives push the development of tourism, the main challenge would be to sustain the 7-10% growth rate. Panama needs important reform to its educational system in order to welcome tourists (42 percent) who do not speak Spanish. This relates to addressing and developing the necessary human capital to offer high quality multilingual services.

Future Perspectives

a. It is anticipated that tourism will continue to be a significant driver of growth in Panama, with investor confidence remaining high given the country's strategic location and stability. However, given that saturation of the hotel market, particularly in the capital, it is likely that greater investments will be made in more under-developed areas and provinces outside of Panama, thus driving development.
b. Regional tourism is expected to remain more than 50%; however, international campaigns focused on Europe, Canada and Asia will continue to grow thus requiring the need for multilingual human capital. It is expected that local schools and universities – both public and private - will continue to expand their educational curricula in order to incorporate English-speaking as an essential skill.

DATE:	November 2014
SUBJECT:	PANAMA: Commerce Sector Briefing

Overview of Commerce in Panama

As of end of 2013 and in line with the trend for the past five years, Commerce represents approximately 18% of the Panamanian GDP as it grows on a year on year basis. Panama is ranked 52 in the most recent Doing Business classification thus climbing three positions from the previous year. According to the ranking, Panama is therefore the first country in terms of ease of doing business in Central America and the fifth in Latin America behind Colombia, Peru, Mexico and Chile.

Key Players (Local)

In food and beverage, Super 99 is the biggest supermarket chain in Panama with over 40 branches throughout the country. Grupo Rey is the holding company of Rey Supermarkets and Pharmacies Metro and Econofarmacias. There are approximately 22 Rey Supermarkets throughout the country and they have expanded steadily throughout the years. Riba Smith was founded in 1946 in Panama, currently has four supermarkets and two stores in Panama City, Chitre and Coronado, and plans to double this number over the next three years. Super Xtra was founded in Panama over 20 years ago and now holds ten supermarkets throughout the country. Empresas Tagaropulos SA is a Panama-based holding company engaged, through its subsidiaries, in the import, distribution and wholesale of dry goods, food, and hygiene and beauty products. Agencia Feduro, a wholesale distributor of products from Procter Gamble, Arla Foods among others. Cerveceria Nacional is part of the SABMiller Group. The Company has a 70 percent market share in the beverage segment. In the department store segment, Felix B. Maduro is an important A and B segment stakeholder and Conway, Collins, Grupo el Costo, and Grupo el Titan are other major players in the segmented low cost retail space. In the Do it Yourself segment there are two major players: DoIt Center and Cochez y Cia. Both companies are Panamanian and have a long history in construction materials and hardware. Finally, in Electronics, Panafoto and Multimax are considered the most important in the market.

Recent Trends

Commerce has been growing over the last five years at a yearly average of 7.5%. Multinational companies are encouraged to establish in Panama through Law 41/2007 which grants fiscal incentives to international companies opening an office in Panama. As of October 2014, about 110 international companies have been established under this law, with investments totaling US$700 million, consequently generating 1,300 jobs. On the other hand, activities in the Colon Free Zone have decreased over the last couple of years due to restrictions on traditional markets (Venezuela and Colombia – debt obligations and custom tariff respectively). Moreover, the signing of a Commercial Promotion Agreement with the United States in October 2012 had a strong impact between the two countries. This led to bilateral trade worth approximately US$11.2 billion in 2013. inally, Panama is becoming a leader in Luxury Retail, with over ten major brands establishing in Panama before exploring other larger markets. By 2015, it is expected that all major Luxury Groups will have a presence in Panama thus signaling confidence in Luxury shopping.

Regulatory Framework and Government Role

Law 5 of January 2007 lists the types of businesses that have specific regulatory regimes. The Ministry of Commerce and Industry (Ministerio de Comercio e Industrias - MICI) provides helpful information and frameworks for local and foreign investors in order to set up a business.

Main Challenges and Emerging Opportunities

Panama is an attractive market for foreign investors due to its strategic location, its economic development, international banking center, transport connectivity and untapped business opportunities. Important infrastructure works including the expansion of the Panama Canal are expected to increase merchandise inflow through Panama, of which 10% of the total cargo stays in Panama while 90 percent is exported. The possible entry of important foreign players, encouraged by the commercial agreements and Law 41, could negatively affect national players. Nevertheless, some conditions within the signed commercial agreements should protect local retailers from the irruption of big international companies. A key trait related to the sector is the increasing indebtedness and purchasing power. The latest figures from the consumer credit segment indicate an increase in consumers' purchasing power. In particular, credit card utilization increased by 16%, meaning that the segment has been growing double-digit in the last three years. Finally, there is an opportunity to regionalize Ecommerce. Panama has the ambition of becoming an e-commerce hub for Central America and started to make progress towards this goal by welcoming a growing internet user base and local ecommerce initiatives.

Future Perspectives

a. Commerce will continue to be important to the country's GDP, particularly with Panama serving as an attractive market for foreign investors due to its strategic location, its economic development, international banking center, transport connectivity and untapped business opportunities. It is possible that innovative ways of engaging clients will emerge, particularly an opportunity for Ecommerce, for which Panama has the ambition of becoming an e-commerce hub for Central America. Nevertheless, the "mall" consumer culture in Panama is still predominant and the space for e-commerce is not expected to cannibalize the existing trend.
b. Commerce in the Colon Free Zone is not anticipated to improve substantially as it is likely that it will use the next year or so determining a new strategy to address the challenges it has faced in the past few months which have significantly impacted the area. In particular, this refocused strategy will be important to ensure the zone's relevance and value-added role in the market.
c. Due to attractiveness in margins, which are relatively higher than the rest of the region, there may a wave of international chains purchasing interesting local chains as a method of expansion.

Annex 5: Comparison Between ACP and ANAM Water Management Models

	ANAM	ACP
Legal Framework for WRM	Law 35 (1966) – 'the water law' - supported water resource management on a sector-by-sector basis (this law is pending revision) Law 41 (1998) –Created ANAM to manage environmental issues, to protect, conserve, and recover the environment, and to promote a sustainable use of natural resources • When ANAM was created, other institutions such as MINSA, IDAAN, MOP, and MIDA among others were already involved in water resource management creating conflicting overlap in responsibilities. Law 44 (2002) - Establishes an administrative regime for the management, protection and conservation of watersheds; proposes the creation of watershed committees and integrative management plans • Treats water as one of many natural resources that is to be protected and conserved in the context of watershed *A law that reflects modern water management concepts (water use regulations, water pollution controls, water related conflicts) has yet to be fully developed in Panama	Title XIV of the Panamanian Constitution establishes the ACP and gives it "exclusive charge of the operation, administration, management, preservation, maintenance, and modernization of the Canal, as well as its activities and related services, pursuant to legal and constitutional regulations in force, so that the Canal may operate in a safe, continuous, efficient, and profitable manner."[105] • The Canal is financially autonomous. • An Administrator and a Deputy Administrator head the ACP under the supervision of an 11-member Board of Directors; the members have overlapping terms to ensure their independence from the country's administrations. Law 19 (1997) establishes the ACP to assume the responsibilities of the US Panama Canal Commission (US PCC) as well as the conservation and management of the PCW (which was not included in the US PCC's mission) Agreement 16 establishes the Inter-Institutional Commission for the PCW.[106]

[105] ACP, http://www.pancanal.com/eng/acp/acp-overview.html
[106] USAID, "Evaluation of USAID's Strategic Objective for the Panama Canal Watershed 2000 to 2005," June 2005.

Institutional Set-up for WRM	Within ANAM, the Department for Water Resource Management sits in the Management Unit on Integrated Watershed Management (see Annex 1). The UNESCO-supported Inter-Institutional Water Resources Council (CONAPHI) includes 13 institutions and Panama aims to coordinate and lead water resource management. ANAM's 2010-2030 Plan for Integrated Water Resource Management includes a diagnostic of water resources management and recommends key activities in the short and medium terms based upon the identified gaps and areas of weakness. ANAM has made limited progress on implementing targeted aspects of the Plan.	The ACP heads the Inter-Institutional Commission for the Panama Canal Watershed (CICH), which includes the Ministry of Housing, the Ministry of Agriculture, the Ministry of Justice and Governance, the Authority for the Inter-Oceanic Region as well as non-profit organizations. The CICH is responsible for coordinating all initiatives in the PCW.[107] The ACP, through the CICH, is carrying out its Plan for Sustainable Development and Integrated Water Resource Management. The ACP also has an Executive Vice Presidency for Environment, Water and Energy.
Monitoring Capacity	ANAM carries out water balances at ten watersheds and assesses water quality in 95 rivers. ANAM currently does not have the financial or technical capacity to monitor water balances or water quality across the country and is reliant on government funding to extend its water resource management activities. [108] ETESA is responsible for operating and maintaining the national network of meteorological and hydrological stations. In 2011, ETESA had 95 active stations to measure rainfall, temperature and relative humidity among other factors.[109]	The ACP and its predecessor, the Canal Commission, have conducted extensive monitoring activities associated with Canal operations over the last two decades. Monitoring activities have been mainly associated with key environmental and social conditions central to the management of Canal operations and the quantity and quality of hydrologic resources. As such many of the traditional monitoring activities have focused on the Canal area watershed and have included monitoring of such environmental aspects as vegetation cover, hydrological conditions, and water quality as well as social aspects related to land use and settlements. Most of these long-term environmental monitoring programs are key components of ACP responsibilities established in the Organic Law for the adequate management use, and conservation of the Canal Watershed water resources.
Quality of Water	In the 95 rivers that ANAM monitors, 34% are classified as contaminated or slightly contaminated.[110] The main source of contamination is domestic sewage.	In 2013, the quality of the water in the PCW received a ranking of 87 in the Global Water Quality Index, positioning the quality of the water between good and excellent.
Sustainability Measures		
Watershed Management Plans	Watershed management plans for four watersheds Implementation strategy for one of the watersheds[111] (2010 data)	Plan for Sustainable Development and Integrated Water Resource Management "to promote watershed

[107] Inter-American Development Bank, Panama Canal Expansion Program, Social and Environmental Report, September 2008. http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=1650393
[108] ANAM, National Plan, 2010-2030.

		management in order to raise the standard of living of the PCW's inhabitants without compromising the Canal's future needs and constant water production in the amount and quality necessary for running the waterway and human consumption." [112]
Reforestation	Reforested 300 hectares around targeted watersheds[113]	Reforested and maintaining more than 6,200 hectares in the PCW[114]
Community Involvement	Capacity building exercises for 200 community groups/cooperatives Developed management plans for thirty farms along the Pacora River115	The ACP through the CICH supports a range of community-based social and environmental development projects to protect the PCW. For example, in conjunction with the National Lands Administration Authority, the ACP has helped over 3,500 producers and residents in the PCW receive land titles. This activity has facilitated land-use planning in the PCW. The ACP has also played an active role in building the capacity of residents to protect the PCW. For instance, in collaboration with the Institute for Professional Formation and Human Resources Development and the Ministry of Education, the ACP carried out conservation and job-training programs for more than 5,666 residents. In regard to agriculture, the ACP has worked with the Ministry of Agriculture Development of Panama (MIDA) to train more than 1,100 producers on sustainable agricultural and livestock practices. The ACP has also worked with MIDA to introduce green agroforestry models for shade-grown coffee and cacao production in the PCW. The ACP receives international and national support for these programs, but also allocates a portion of its annual budget towards community initiatives. In addition to annual financial commitments, the USAID

[109] GWP Report 2011
[110] ANAM, National Plan for Integrated Water Resource Management, 2010-2030.
[111] ANAM, National Plan, 2010-2030.
[112] World Business Council for Sustainable Development, Panama Canal Sustainable Development Program, 2005.
[113] ANAM, National Plan, 2010-2030.
[114] ACP 2013 Annual Report
[115] ANAM, National Plan, 2010-2030.

		assisted in the establishment of a Fund for the Conservation and Recuperation of the Canal Watershed to ensure long-term conservation. This fund supports projects in the following areas: reforestation, agro-forestry, natural habitat management, reduction of sources of pollution, basic community sanitations, liquid and solid waste control, soil conservation, ecotourism, land titling and unified cadastre, and development of sustainable agricultural techniques.[116]
Climate Change	With the support of National and international funds, ANAM has undertaken several small-scale adaptation and mitigation programs, including: • A program to capture rainwater in areas that do not have ample water resources (Guna Yala and Ngäbe Buglé among other areas) • Climate change vulnerability studies and installing equipment to monitor the impact of climate change in two watershed	From the IFC's August 2008 Environmental and Social Review of the Panama Canal: As part of the expansion project design process, the ACP conducted extensive statistical modeling to evaluate the potential availability of water for navigation and potable use during droughts that might occur due to climate change influences within the next 17 years. The data analysis included historical rainfall and stream flow patterns, including three very significant ENSO events (i.e., extreme droughts), which occurred over the last 30 years of operation. Using a 99% confidence interval, the evaluation concluded that sufficient water will be available for both Canal operation and potable use for growth in population through the year 2025.[117] The ACP is working with the National Civil Defense System and local communities to build risk management capacity.
Knowledge Gaps / Areas for Development	In 2010, ANAM highlighted the following knowledge gaps/areas for development: • Limited knowledge on underground water • Lack of hydraulic infrastructure for extended dry periods • Lack of up-to-date knowledge on water-stressed areas • Unreliable information on water uses • Unknown number of illegal users	In addition to a continued commitment to on-going activities, areas for further development include: • Mitigating contamination of connecting rivers, especially in urban and peri-urban areas • Preparing for floods and extended dry seasons

[116] IFC, Environmental and Social Review of the Panama Canal, 2008.
[117] IFC, Environmental and Social Review of the Panama Canal, August 2008.

	• Lack of guidelines on water use in watershed management plans • Lack of capacity to monitor compliance with environmental norms on water resource management • Need to ensure that institutions utilize hydrogeological information before accessing underground water • No national campaign on the importance to conserve and protect water; no evidence of optimization of water • Unknown ecological cost of water • Lack of a functioning information system to connect the knowledge of the various institutions involved in water resource management	