Republic of Nicaragua
Review of Social Sector Issues

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Human Resources Operations Division
Latin America and the Caribbean Regional Office

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LIST OF ACRONYMS

CARE Cooperative for American Relief Everywhere
CIDA Canadian International Development Agency
CIPS Center for Supply of Pharmaceutical Products
CNU National University Council
DAM Procurement Directorate at the Ministry of Health
DANIDA Danish International Development Agency
DAR Directorate for Rural Water
EEC European Economic Community
FASO Fund for Assistance to Oppressed Sectors
FINNIDA Finnish Department of International Development Cooperation
FISE Social Investment Fund
GON Government of Nicaragua
IDA International Development Association
IDB Inter-American Development Bank
IEC Information, Education and Communication
INAA Nicaraguan Institute for Water and Sewerage
INATEC National Technological Institute
INCAP Nutrition Institute for Central America and Panama
INEC National Institute of Statistics and Census
INSSBI Nicaraguan Institute of Social Security
IPPF International Planned Parenthood Federation
KfW German Credit Institute for Reconstruction
LSMS Living Standards Measurement Survey
MEC Ministry of External Cooperation
MEDE Ministry of the Economy
MINPRES Ministry of the Presidency
MIS Management Information System
MOE Ministry of Education (or MED)
MOF Ministry of Finance
MOH Ministry of Health (or MINSA)
NGO Non-Governmental Organization
ORS Oral Rehydration Salts
PAHO Pan American Health Organization
PAMIC Micro-enterprise Support Program
PAN Nicaraguan Food Program
PHC Primary Health Care
PRRN National Reconciliation and Rehabilitation Program
PROFAMILIA Nicaraguan NGO for Family Planning
RUTA Regional Unit for Technical Assistance
SIDA Swedish International Development Authority
SILAIIS Local Systems of Integrated Health Services
TFR Total Fertility Rate
UNDP United Nations Development Programme
UNESCO United Nations Educational, Scientific and Cultural Organization
UNFPA United Nations Fund for Population Activities
UNICEF United Nations International Children's Education Fund
USAID U.S. Agency for International Development
WFP World Food Program
WHO World Health Organization
NICARAGUA
REVIEW OF SOCIAL SECTOR ISSUES

TABLE OF CONTENTS

EXECUTIVE SUMMARY .............................................. i

I. SOCIOECONOMIC CONTEXT ....................................... 1
   A. Background and Recent Economic Developments ............... 1
   B. Social Conditions ........................................ 2
   C. Social Sector Spending .................................... 3

II. TRENDS AND ISSUES IN THE SOCIAL SECTOR ...................... 4
   A. Population ............................................... 4
   B. Poverty ................................................. 7
      Incidence of Poverty .................................... 7
      Recent Trends .......................................... 7
      Issues in Poverty Alleviation .......................... 9
   C. Water and Sanitation ...................................... 10
      Trends ................................................ 10
      Issues in Water and Sanitation .......................... 11
   D. Nutrition ............................................. 12
      Trends ................................................ 12
      Nutrition Interventions ................................. 13
      Issues in Nutrition .................................... 14
   E. Health .............................................. 14
      Trends ................................................ 14
      Organization of the Health Sector ....................... 15
      Main Issues in the Health Sector ....................... 17
   F. Education ............................................. 25
      General Trends ......................................... 25
      Overview of the Education Sector ....................... 27
      Main Issues in the Education Sector .................... 28
   G. Institutional Impediments in the Social Sector ............. 34
      Lack of a Coherent National Policy for the Social Sector .... 34
      Budget Policy and Financial Management .................. 34
      Coordination of Donors Assistance ....................... 34

III. GOVERNMENT PROGRAMS AND STRATEGIES FOR THE SOCIAL SECTOR ...... 35
   A. Safety Net Programs ..................................... 36
   B. Improving Delivery of Basic Social Services .............. 37

This report was based on findings of missions in September 1991 and February 1992 composed of Ana-Maria Arriagada, Task Manager (LA2HR); Thomas Bossert, Fernando Vio, Clemencia Chiappe, and Katherine Scott (Consultants) as well as findings from a November 1992 mission led by Laurent Msellati (LA2HR). It has benefitted greatly from the comments of Kye Woo Lee (LA2HR), Philip Musgrove, Juan Prawda, and Sandra Rosenhouse (LATHR), and Claudio Sapelli (LA2C2). Several background papers prepared by USAID-Nicaragua, IDB, DANIDA, UNICEF, and PAHO also provided substantial inputs. Vinh Nguyen provided editorial input and production support.
IV. RECOMMENDATIONS

Recommendation 1: Develop a Social Sector Strategy and Coordination
Recommendation 2: Develop a Sound Safety Net Program for the Short-Term
Recommendation 3: Reduce High Fertility Rates
Recommendation 4: Improve Delivery of Basic Services—Priority to PHC and Primary Education
Recommendation 5: Improve Efficiency in the Use of Resources
Recommendation 6: Improve Equity in Social Spending
Recommendation 7: Develop a Coherent Nutrition Strategy
Recommendation 8: Target and Coordinate Foreign Aid

BIBLIOGRAPHY

List of Annexes

3. Social Investment Fund (FISE)
4. National Reconciliation and Rehabilitation Program (PRRN)
8. Nicaragua Health Indicators
   MOH Expansion of Health Facilities, 1979-1990
   Immunization Coverage, 1989-1990
   Coverage of Growth Monitoring Activities, 1990
   MOH Staffing Patterns, 1979-1990
   Distribution of Health Expenditures by Recurrent and Capital Expenditures, 1984-1992
   Distribution of Health Expenditures by Program, 1983-1992
   Distribution of Health Expenditures by Region, 1986-1991
   Internal and External Health Financing, 1981-1992
9. Nicaragua Education Indicators
   Gross Enrollment Ratios, 1978-1990
   MOE Expansion of Facilities, 1978-1989
   Enrollment Growth, 1979-1990
   Schools by Highest Grade Offered, 1978-1989
   Internal and External Education Financing, 1981-1992
10. Technical and Vocational Education System
11. Recommendations Matrices
12. Social Sector Policy Letter

Map - IBRD No. 23958
EXECUTIVE SUMMARY

1. Nicaragua is one of Latin America’s poorest countries. Its per capita GDP fell from US$850 in the late 1970s to US$341 in 1991 due to the civil strife and inappropriate macroeconomic policies in the 1980s. Today, Nicaragua is in the midst of a stabilization and adjustment process entailing major devaluation of the cordoba, price adjustments, trade liberalization, financial sector reforms, reduction of the public sector and budget expenditures, and limiting of the scope of state intervention in the economy. Despite impressive achievements and the presence of significant foreign aid, the combined impact of these measures is expected to engender temporary social costs. The seriousness of such potential impacts, when viewed against the background of Nicaragua’s widespread chronic poverty and socio-political instability, reinforces the need for social sector institutions to play a pro-active role, both to protect the most vulnerable groups in the short-term and to foster human resources as a basis for long-term growth.

2. This study reviews trends, programs, and issues in the social sector in Nicaragua. It is IDA’s first such study for Nicaragua, and covers the areas of population, poverty, water and sanitation, nutrition, health, and education. While trying to fill in large gaps in basic data over the last ten years, the study focuses primarily on issues now facing the Government of Nicaragua (GON) in the social sectors. Therefore, this report: (a) summarizes economic and social conditions; (b) examines issues in the social sector in the context of past and present efforts by the GON and donor agencies; (c) outlines the GON’s strategy as presented to the Bank in a social sector policy letter in October 1992; and (d) formulates recommendations addressing the major issues. Although the lack of reliable, systematic data in Nicaragua dictates a certain amount of unevenness in analysis among the topics covered, general agreement exists on the trends of social indicators; in some instances, analyses are based on qualitative evidence and/or experience of other countries. This executive summary begins with a brief discussion of overall sector trends and key issues now facing the GON in each of the sectors, points out the priority areas that require prompt Government attention, and expresses major recommendations. The body of the report covers each major topic area in more depth.

A. Social Conditions

3. Poverty is widespread and, according to the Government, open unemployment increased from 5.6% in 1989 to 13.6% in 1991. Government data for 1985 classified 70% of the population as poor, of which 23% were in extreme poverty, and 16% in critical conditions of misery. The core poverty groups are children under 10 years old, women (particularly those heads of household), war-affected populations, and populations in the South and North Atlantic and Rio San Juan regions. Population growth of 3.4% per annum far exceeds the Latin American average of 2.2%. The estimated total fertility rate (TFR) of 5.5 is higher than Central America’s average of 4.8, and contraceptive prevalence among women of fertile age is estimated at 6.3%, the lowest such figure in Central America. Health indicators show large deficiencies. Infant mortality is 72/1,000, caused mostly by diarrhoea and acute respiratory infections. Maternal mortality is 159/100,000. An estimated 10% of hospital-born children are underweight; moderate and severe malnutrition affects an estimated 13% of children under 5; and 22% of children aged 6-9 exhibit height/age deficits. Inadequate coverage of water and sanitation renders the population susceptible to water-borne diseases. Water coverage in 1989 was 78% in urban areas, but only 18% in rural areas where 40% of the population live. Sanitation coverage was only 32%, ranging from 65% in Managua to between 9% and 16% in rural areas. While the majority of children have access to the education system, high repetition and dropout rates, especially in the first two grades (a combined 45%), yield low educational progress. Nationally, only 22% of primary school entrants complete the sixth grade (only 7% in rural areas).
B. Social Sector Issues: A Summary

4. During the 1980s, the Government committed itself to provide universal health and education services. The share of public spending in the social sector increased from 18% in 1979 to 22% in 1989 and 36% in 1991, or from 3.7% of GDP in 1979 to 6.7% in 1989 and 9.1% in 1991, a share higher than in most Central American countries, and much higher than those typical for an economy with its GDP level. When social indicators are assessed in the context of relatively high social sector expenditures, the current outcomes cannot be attributed to the lack of spending, but rather to issues such as absence of a coherent sector strategy, fragmented safety net programs, rapid population growth, ineffective delivery of social services, inefficient use of resources, inequitable allocation of resources, inadequate attention to nutrition issues, and deficient targeting and coordination of external aid.

Issue 1: Absence of a Coherent Strategy for the Social Sector

5. The critical issue for each of the sectors reviewed is the absence of a coherent government strategy, reflecting a lack of strategic objectives, sectoral priorities, institutional capacity, and resource planning. The rest of the social sector issues follows.

Issue 2: Fragmented Safety Net Programs

6. The GON has not clearly defined its strategy for poverty alleviation in the short-term. No definition of the most urgent problems has been carried out, and no priorities have been established between safety nets for the most vulnerable groups and those who need attention for security reasons. Because of undefined priorities and blurred division of roles, compounded by weak coordination of interventions, existing institutions lack the capacity to effectively formulate and implement policies and programs. For example, the FISE (Social Investment Fund), FASO (Fund for Assistance to Oppressed Sectors), and PAMIC (Micro-Enterprise Support Program) all aim to create emergency employment; both the FASO and PRRN (National Reconciliation and Rehabilitation Program) target displaced, demobilized, and war-affected groups; and FASO and PAMIC both provide credit to informal sector workers. With the exception of the FISE, and possibly the PRRN, most programs have unclear institutional configurations, modes of operation, and financing arrangements. This state of affairs is also reflected in competing funding requests for donor support.

Issue 3: Rapid Population Growth

7. A major factor explaining Nicaragua's insufficient progress in health and education is the low priority assigned by the public health system to the provision of services to space births and limit family size. Population growth is at 3.4% per annum, and it is estimated that by the end of the decade the number of children under age 5 will increase by 147,000 (an increase of 22%), the number of women of reproductive age by 500,000 (47%), and the number of school-age children (7-12) by 210,000 (32%), which will greatly increase the already strained public capacity to provide for maternal and child health care and education services. Family planning reduces maternal and child mortality by helping couples space births and limit family size. The ability to determine when they will bear children provides women with greater alternatives, contributes to higher investments in children, and improves the living conditions of families. Reducing fertility also slows the population growth rate, buys time for development of the country's economic potential, increases the speed with which per capita incomes can be raised, and curbs the demand for health and education services.
Issue 4: Ineffective Delivery of Basic Services

8. Although on the surface coverage of health and education services compares well with most Central American countries, primary health care (PHC) and primary education suffer from low internal efficiency and poor quality of services. Despite the espoused emphasis on PHC, the provision of services is biased toward curative care because: (a) doctors and hospitals are called on to cure ailments that could have been less expensively prevented by non-physician personnel at the primary level; (b) PHC programs are poorly integrated and referral systems inadequate; (c) community-based care does not emphasize routine preventive activities; and (d) facilities and equipment are in disrepair. Inadequate coverage (particularly in rural areas) and poor quality of water and sanitation services are at the heart of the high incidence of water-borne diseases. Main issues in water and sanitation include the need to improve coverage and service quality, particularly in rural areas, the poor sustainability of investments due to inadequate cost-recovery, and the lack of definition of the roles of the Nicaraguan Institute for Water and Sewerage (INAA), Ministry of Health (MOH), municipalities, and communities for the provision of services. Primary education suffers from low internal efficiency and poor quality because: (a) a large number of schools are incomplete (with three grades or less), particularly in rural areas (35%); (b) 19% of rural children attend multigrade schools where teachers are largely untrained; (c) preschool coverage does not reach rural areas (80% of all preschools are concentrated in urban areas) and lacks adequate educational materials and qualified teachers; (d) the quality of the teaching-learning process is low, with a large number of unaccredited teachers and poor skills even among those who are accredited; (e) teaching and learning materials are insufficient. USAID donations satisfied the need for textbooks in the short-term, but other materials such as blackboards, chalk, notebooks, and pencils are still lacking; and (f) facilities and equipment are in disrepair.

Issue 5: Inefficient Use of Resources

9. The resources that are available for social sector programs are poorly used. Inefficient allocation is reflected in the following three situations. First, there have been substantial increases in the share of personnel expenditures at the expense of operations and maintenance, resulting in a general deterioration of facilities and equipment and a lack of complementary inputs essential for adequate service delivery. In the health sector, wages as a share of total expenditures increased from 32% in 1989 to 59% in 1991; in the education sector, they increased from 64% in 1989 to 77% in 1991 and to 86% in the 1992 budget. A number of provisions of the law governing the teaching profession, Ley de Carrera Docente, especially regarding retirement and training, are likely to worsen the situation at the Ministry of Education (MOE). Second, there is a poor skills-mix at both the MOH and MOE, which leads to major waste of resources. At the MOH, there is an excess of physicians and a critical shortage of paramedical staff, with a nurse to physician ratio of less than 1:1 compared to the international norm of 4:1, and there is an excess of specialists among physicians (42%). At the MOE, there is a serious shortage of qualified teachers (non-accredited teachers with lesser training, the empíricos, comprise 55% and 23% of rural and urban teachers, respectively). Finally, there is a lack of drugs and medical supplies at MOH facilities (even though MOH annual per capita spending for these inputs is over US$5) and of teaching materials at the MOE.

Issue 6: Inequitable Allocation of Resources

10. The professed GON objective to shift social sector spending from generalized subsidies to programs targeting the poor has yet to be realized. The existing allocation of public funds across the different levels of health and education are skewed toward hospital care and higher education. At least 56% of health expenditures are devoted to hospitals, and almost 30% of education expenditures to higher education. Moreover, by law, higher education receives an earmarked allocation of 6% of
Government revenues. Meanwhile, investments with the highest social returns such as family planning, water and sanitation (especially for rural areas), preventive PHC activities, nutrition programs for children under-5 and pregnant and lactating women, and primary education—investments that most benefit the poor—remain underfunded.

Issue 7: Inadequate Attention to Nutrition Issues

11. The lack of a consistent nutrition policy has generated disconnected and sometimes contradictory interventions. Considering that over 70% of child deaths in hospitals are related to malnutrition, this policy vacuum is leaving the most vulnerable groups (children 0-5, pregnant and lactating women) clearly underserved. This void in leadership has frustrated the efforts of donor agencies.

Issue 8: Deficient Targeting and Coordination of Foreign Aid

12. Foreign aid represents about 39% of total public funding in health and 9% in education and also finances all safety net programs. However, its effectiveness is hampered by: (a) lack of a coherent operational strategy, with no mechanisms in place to ensure that resources are directed toward priority programs; (b) inadequate control and coordination, since a large number of agreements bypass the Ministry of External Cooperation (MEC); (c) lack of mechanisms to ensure the availability of counterpart funds as required by most donors, which in many situations impedes the continuous flow of aid; and (d) lack of assessments of the recurrent cost implications of proposed investments on the Government budget.

C. Recommendations for the Social Sector: A Summary

Recommendation 1: Develop Government Strategy for the Social Sector

13. The Government should formulate a social sector strategy document clearly indicating priority programs and measures, including an implementation plan, to be pursued over the short- and medium-terms. The Government’s social sector policy letter of October 1992 represents an important first step in the evolution of the Government's social sector strategy through its emphasis on targeted poverty alleviation and reform in the line ministries in order to improve the provision of basic social services. To develop its capability to effectively coordinate and monitor the implementation of its social sector strategy, the Government should: (a) organize, at the highest level of Government, a technical unit responsible for coordinating and monitoring the implementation of the social sector strategy, which should not be charged with the implementation of any specific program, but with ensuring adequate coordination, monitoring, and complementarity among interventions; (b) strengthen the capacity of the Ministry of Finance (MOF) for budgeting and financial management in the social sector institutions, including the allocation of Government resources and donor contributions; and (c) strengthen its institutional/policy analysis capability, by implementing a Living Standards Measurement Survey program (LSMS) and other institution-based monitoring systems to monitor and evaluate the impact and efficiency of key Government interventions in the social sector.

Recommendation 2: Develop a Sound Safety Net Strategy for the Short-Term

14. The Government should concentrate on a small number of initiatives which should: (a) be part of the wider social sector strategy, focusing on priority interventions; (b) target the most vulnerable groups (women and children); and (c) have adequate institutional setups and management capacities with transparent resource allocation and accountability rules. Based on current experience, the Government should continue to support FISE, its most successful program to date.
Recommendation 3: Reduce High Fertility Rates

15. The Government should formulate policies and programs to promote family planning services (by both the public health system and private agencies) and maternal and child health. Providing women with greater control over reproductive choices will help improve maternal and child health.

Recommendation 4: Improve Delivery of Basic Services — Priority to PHC and Primary Education

16. Improving PHC services. As a first step, the MOH should prepare an action plan for PHC services, emphasizing the role of community volunteers into routine preventive care activities; main areas to be strengthened include water and sanitation, health education, pre- and postnatal care, immunizations, nutrition activities, and birth spacing; (b) strengthens organization of PHC services provision; (c) improves availability of drugs and materials; (d) provides systematic supervision and develops an adequate Management Information System (MIS); and (e) rehabilitates PHC facilities and equipment and develops maintenance systems. **Priority policy decisions** which should accompany this strategy are: (a) a formal MOH commitment to increase the share of PHC in the domestically-financed health budget by two percentage points per annum for the next four years; and (b) MOH commitment to channel donor resources toward PHC (para. 21).

17. In addition, the GON should define a water and sanitation strategy aiming at improving coverage and services quality, emphasizing the needs of rural areas and the poor, and developing cost-recovery mechanisms and maintenance systems to ensure the sustainability of investments in the sector. To ensure the proper development of this strategy, the GON should clearly define the roles of INAA, MOH, municipalities, and communities for the provision of urban and rural water and sanitation services.

18. Improving primary education services through: (a) strengthening content, quality and targeting of preschool programs; (b) completing, as much as possible, incomplete schools (those with three grades or less); (c) providing teacher training, especially to unaccredited teachers; (d) developing alternatives for teacher training, accreditation, and reward. The MOE should develop new strategies such as tying salary increases to merit certification through examinations and teacher performance reviews and establishing general examinations as a requirement for accreditation; (e) developing a textbook and curriculum improvement policy; and (f) rehabilitating schools and developing maintenance systems with community participation. **Priority policy decisions** that should accompany this strategy at the MOE are: (a) a formal commitment to increase the share of primary education in the domestically-financed education budget by three percentage points per annum for the next four years; (b) a commitment to continue channelling donor resources toward primary education priority (para. 23); and (c) a policy to assign the more experienced teachers to the first two grades; maintain teachers with the same students during the first two grades; and institute automatic promotion from first to second grade.

Recommendation 5: Improve Efficiency in the Use of Resources

19. In health, the GON should take action in four areas. First, it should adjust staffing patterns at the PHC level, giving priority to nurses and auxiliary personnel. Second, it should develop a coherent pharmaceutical and medical supplies policy and system aiming at: (a) improving management of drugs and medical supplies for the public sector through a complete overhaul of current institutional arrangements in the DAM and CIPS; (b) controlling expenditures and
developing rational drug use practices among both prescribers and consumers; (c) safeguarding the quality of consumer products; and (d) removing constraints to development of local industry and supporting investments. Third, the MOH should develop supervision and management information systems. Finally, the GON should address sectoral financial issues by: (a) developing cost-containment strategies, including improving management of budget resources and of hospitals’ administration so they can respond to the referral needs of the primary level; and (b) diversifying its financing sources. The latter should be achieved by: (i) introducing user fees for selected services and drugs, and using these revenues to increase budget allocations for PHC; (ii) developing incentives for private sector participation in the provision of health care services (i.e., commercial enterprises, NGOs, churches, and local communities); (iii) targeting foreign aid to PHC; and (iv) strengthening implementation capacity at the local level.

20. In education, the GON should take action in three areas: First, the GON should strengthen MOE’s organizational structure by streamlining non-teaching personnel, adding qualified technical staff at the central level, providing management training, and developing operational procedures. Second, the MOE should develop a Management Information System to track student flows, physical inventory, and personnel. Finally, the GON should address sectoral financial issues, including: (a) developing cost-containment strategies, including improving management of MOE budget and revising existing legislation on wages and promotion incentives for teachers (Ley de Carrera Docente); and (b) diversifying its financing sources through: (i) using fees collected at the primary and secondary levels to fund critically needed inputs such as materials, supervision, and maintenance in addition to increasing teacher salaries; (ii) reducing public subsidies to higher education and introduce student fees, channeling the savings toward primary education; (iii) promoting private provision of services at the secondary and higher education levels by deregulating licenses and fees; and (iv) reinforcing efforts to mobilize foreign aid, particularly for pre-primary education.

Recommendation 6: Improve Equity in Allocation of Resources

21. The GON should increase the share of public resources devoted to basic services that benefit most the poor. Therefore, MOH and MOE should implement espoused priorities on PHC and primary education by shifting expenditures and investments accordingly. The Government should verify through the MOF that these priorities are implemented and resources shifted by monitoring both budget allocation and execution, including foreign aid. Although changes in financing practices along the lines of Recommendation 5 would improve overall equity by increasing the budget share for PHC and primary education, special attention should be paid by the GON to the following: (a) in the health sector, the introduction of fees for selected services and drugs should be based on ability to pay, with very low or zero charges for low-income users to ensure access to health care services for the poor. A significant share of these revenues should be used at the primary health facility level to fund key inputs for services delivery; and (b) in the education sector, consideration should be given to: (i) careful monitoring of the impact of voluntary fees at the primary level on actual access to schooling. A significant portion of revenues generated by user fees should be used at the school level; and (ii) supervision of the performance of private provision of education services to ensure minimum quality standards.

Recommendation 7: Develop a Coherent Nutrition Policy

22. To this end the GON should: (a) identify a body responsible for nutrition policy-making and inter-institutional coordination; existing programs should be evaluated, and not to overburden local capacity, a limited but well-targeted number of interventions should be selected for support by
the GON and donor agencies; and (b) strengthen MCH nutrition activities in its PHC services, including promotion of breast-feeding and weaning practices.

Recommendation 8: Targeting and Coordination of Foreign Aid

23. The Government strategy document (Recommendation 1) should serve as the central instrument for guiding coordination of donor efforts. Given the social sector’s likely continued heavy reliance in the short- and medium-term on external assistance, the need for comprehensive donor coordination around a consistent Government strategy is particularly great. The Government should: (a) sanction and enforce a policy to channel all donor resources earmarked for its social sector strategy through MOF and MEC; and (b) develop mechanisms to effectively monitor implementation of programs and projects financed under foreign aid.
I. SOCIOECONOMIC CONTEXT

A. Background and Recent Economic Developments

1. Nicaragua is one of Latin America’s poorest countries, with a per capita GDP estimated at US$341 in 1991, substantially lower than the US$850 level prevailing in the late 1970s. This decline is explained by the serious economic deterioration during the 1980s, resulting from the combined impact of inappropriate macroeconomic policies, institutional changes toward a centrally controlled economy, continued civil strife, and a trade embargo. By the end of the decade, production was well below the 1980 level, exports were running at about half the pre-1980 level, hyperinflation reached a high of 14,700% in 1988, international reserves were depleted, and external debt had reached US$10 billion, equivalent to 27 times annual exports and 7 times GDP. The financial system, much of the productive structure, and external marketing of the principal export products were in the hands of an oversized public sector. What was left of the private sector, after extensive expropriations, was heavily regulated, and productive capacity had diminished substantially due to lack of maintenance and spare parts. Moreover, serious damage had been done to the country’s infrastructure.

2. Starting in March 1991, the GON launched an economic stabilization program designed to eliminate hyperinflation, arrest the decline in GDP, and strengthen the balance of payments through tight fiscal and monetary policies. The results of the stabilization program are encouraging. Following large price adjustments in March and April, the consumer price index has been stable since May 1991. Inflation is expected to be only around 4.5% in 1992. Contrary to expectations, the 1991 GDP declined only slightly from the previous year despite a drought that affected agricultural production, because industrial and commercial production showed recovery. For 1992, GDP growth is expected to be about 0.4%.

3. Fiscal adjustments played a leading role in achieving stabilization. The fiscal deficit of the non-financial public sector, excluding grants, was reduced from 30% of GDP in 1990 to 8% in 1991. After accounting for grants, this deficit shifted to a 5% surplus. Current expenditures in the central Government were reduced from 44% of GDP in 1990 to 25% in 1991, following large reductions in military and internal security outlays. The central government wage bill was also reduced substantially, from 9% of GDP in 1990 to 6% in 1991, while central government tax revenue increased from 14% of GDP in 1990 to 19% in 1991. The tight monetary policy contributed to the stabilization effort.

4. In coordination with this stabilization effort, the GON began to implement a comprehensive program of structural adjustment aimed at reorienting the economy toward a competitive market system. The structural adjustment program builds upon three pillars: (a) public sector reforms; (b) liberalization of financial sector policies and the trade regime; and (c) the incentives system. Key barriers to private sector participation have been lifted and a trade liberalization program, including agriculture, is underway, including the elimination of public sector monopolies on import-export activities. Deregulation of agricultural trade was initiated by downsizing and limiting the scope of intervention by the state-owned basic grains marketing enterprise. In the financial sector, legislation allowing for the creation of private banks was approved (there are now six new banks in operation), and the restructuring and downsizing of state-owned banks have begun. The Central Bank is being reorganized and strengthened, as is a new Superintendency of Banks. To reduce the size and increase the efficiency of the central government, public finances are being strengthened through a complete overhaul of the tax system and through substantial expenditure reductions. The initial phase of a public employment reduction program has been completed, with the voluntary retirement of 8,200 central government civilian employees and demobilization of over 45,000 military personnel. In
addition, over 100 enterprises have been privatized, reducing the share of state-owned enterprises' production from 42% of GDP in 1990 to 25% in 1991.

B. Social Conditions

5. During the 1980s, the GON committed itself to provide universal education and health services to the population, which translated into increased budgetary allocations for the social sector. Although a number of indicators compare favorably with the rest of the Central American region, the gains have not been as great as one might have expected, showing poor health, malnutrition and low levels of educational attainment (Table 1).

<p>| Table 1 - CENTRAL AMERICA AND MEXICO: SELECTED SOCIAL INDICATORS |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Country</th>
<th>GNP per Capita*</th>
<th>Illiteracy (%)</th>
<th>Net Enrollment in Primary Schools (%)</th>
<th>Primary School Completion Rate (%)</th>
<th>Infant Mortality per 1,000 Births*</th>
<th>Child Mortality (1-4 yrs)</th>
<th>Malnourished Children (%)</th>
<th>Low Weight of Infants at Birth (%)</th>
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<tr>
<td>Average for Central America</td>
<td>1,137</td>
<td>25.2</td>
<td>90.1</td>
<td>61.9</td>
<td>47.8</td>
<td>12</td>
<td>26.8</td>
<td>16.8</td>
</tr>
<tr>
<td>Mexico</td>
<td>2,010</td>
<td>9.7</td>
<td>96.0</td>
<td>65.3</td>
<td>40</td>
<td>9</td>
<td>14</td>
<td>16</td>
</tr>
</tbody>
</table>

* Stunting
*** Government of Nicaragua estimate.
Sources:
2. Enrollment of children of primary school age which is less than total enrollment which includes children above primary school age.

6. The stabilization and adjustment program, despite impressive achievements and significant foreign aid, is expected to engender temporary social costs. The seriousness of such potential impacts, when viewed against the enormous deterioration in the overall level of welfare over the last 15 years, with per capita GDP declining to one-third of its 1977 level (Table 2), emphasizes the need for the social sector to play a critical role, both to protect the most vulnerable groups in the short-term and to foster human resources as a basis for long-term growth.

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NICARAGUA - Index of GDP and GDP per capita (1970=100)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP Index</th>
<th>GDP per capita Index</th>
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<tbody>
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<td>81</td>
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<td>200</td>
</tr>
<tr>
<td>82</td>
<td>200</td>
<td>210</td>
</tr>
</tbody>
</table>

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GDP Index · GDP per capita Index
C. Social Sector Spending

7. Starting in 1979, the Government expanded basic social services to the population. Given the policy of providing health and education services free of charge, expansion of the service coverage undertaken during the 1980s relied almost exclusively on public revenues. The share of public spending in the social sector increased from 18.2% in 1979 to 21.7% in 1989 and 35.9% in 1991, or from 3.7% of GDP to 6.7% in 1989 and 9.1% in 1991, a share higher than most Central American countries (Table 3), and much higher than is typical for an economy with its GDP level.

Health Spending

8. Health spending, which had been on average 1.6% of GDP during the 1970s, experienced a sharp rise in 1981 to 4.5% of GDP, remaining at about 5% of GDP throughout the decade. In real per capita terms, between 1976 and 1985, health spending increased by 26%, and then declined steadily during the second half of the decade by a total of 8%, to reach in 1991 a level slightly above that of 1970 (Table 4). This descent was less than half the fall in overall public spending in the same period. In sum, the health sector suffered less in terms of expenditure cuts than did government spending as a whole, showing the Government's priority toward the provision of health services.

<table>
<thead>
<tr>
<th>Country</th>
<th>Health % of GDP</th>
<th>Health % of CGE</th>
<th>Education % of GDP</th>
<th>Education % of CGE</th>
<th>Total % of GDP</th>
<th>Total % of CGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa Rica</td>
<td>5.9</td>
<td>15.9</td>
<td>4.8</td>
<td>12.9</td>
<td>10.7</td>
<td>28.8</td>
</tr>
<tr>
<td>El Salvador</td>
<td>0.8</td>
<td>8.8</td>
<td>2.1</td>
<td>17.0</td>
<td>2.9</td>
<td>25.8</td>
</tr>
<tr>
<td>Guatemala</td>
<td>1.2</td>
<td>9.8</td>
<td>2.3</td>
<td>16.0</td>
<td>3.2</td>
<td>25.8</td>
</tr>
<tr>
<td>Honduras</td>
<td>1.4</td>
<td>10.3</td>
<td>3.5</td>
<td>20.0</td>
<td>4.9</td>
<td>30.3</td>
</tr>
</tbody>
</table>
| Nicaragua  
|              | 4.9             | 18.2            | 4.2                | 17.7              | 9.1           | 35.9          |
| Panama      | -               | 16.7            | -                  | 15.6              | -             | 32.3          |

Sources: World Bank, World Development Report, various years.
Notes: - not available.

\[\] 1991 figures; sources: GON, MOF.

Education Spending

9. Education spending also increased its share of GDP from an average of 2.5% in the 1970s to about 5% of GDP in the first half of the 1980s, declining steadily thereafter to 2.7% by 1989. In real per capita terms, between 1976 and 1985, education spending increased by 24%, and then declined sharply (over 60%) through 1989. This drop was 10% faster than the decline in overall public spending in the same years (Table 4). Although education spending has recovered slightly since to 4.2% of GDP in 1991, it remains 30% below its 1970 level. In short, the education sector suffered not only more than the health sector in terms of expenditure cuts, but also more than overall government spending.
### Table 4
NICARAGUA HEALTH & EDUCATION EXPENDITURES

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<tr>
<td>6% of GDP</td>
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<tr>
<td>Health</td>
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<td>1.1</td>
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<td>4.1</td>
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<td>5.5</td>
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<td>3.6</td>
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<tr>
<td>% of Central Govt. Expend.</td>
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<td>13.6</td>
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<td>9.0</td>
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<tr>
<td>Index of Per Capita Expend. (1970=100)</td>
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<td>Total GON</td>
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### II. TRENDS AND ISSUES IN THE SOCIAL SECTOR

10. The GON is now confronted with the delicate task of implementing its economic stabilization and structural adjustment programs while protecting the poor. From each of the areas of the social sector reviewed below (population, poverty, water and sanitation, nutrition, health, and education), common patterns emerge: (a) lack of comprehensive and sustained sectoral policies; (b) low institutional capacity for policy formulation and implementation; (c) inadequate targeting of expenditures; (d) inefficient use of resources; and (e) deteriorated condition of facilities and equipment.

#### A. Population

**Trends**

11. Demographic data on Nicaragua are scarce. Current population estimates are based on the last national census, conducted in 1971, and on data from two demographic surveys, one conducted in 1978 and the other in 1985.¹ Nicaragua's estimated annual population growth rate of 3.4% far exceeds the 2.2% average in Latin America, and is higher than the Central American region's 2.9%. The population, estimated at 3.86 million in 1990, doubled over the past twenty years (Table 5).² In 1985, approximately 47% of the population was under 15 years of age and 4% was over 64 years of age, resulting in a dependency ratio of 1.04.³

12. **Geographical Distribution.** The geographical distribution of the population is uneven. Sixty-five percent of the population live in the Pacific lowlands, 15% of the territory. The Atlantic

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¹ 1978 Encuesta Demográfica de Nicaragua (EDENIC), and 1985 Encuesta Socio-Demográfica Nicaragüense (ESDENIC-85).
region is the most sparsely populated, with 8% of the population in 56% of the territory. Nicaragua has become progressively more urbanized, with the urban population increasing from 35% in 1950 to 53% in 1985 and 60% in 1990. The economic crises and the prolonged civil war were probably the main causes for the accelerated migration away from rural areas since 1985.

13. **Fertility.** The estimated TFR of 5.5 is higher than the Central American region's 4.8. The TFR has had a limited decline since 1965, when it was estimated at 7.3. In the last decade the decline has occurred primarily in rural areas, changing from 8.4 in 1978 to 7.6 in 1985. No change was evident in urban areas. The highest fertility is found in the rural areas of Matagalpa and Jinotega (among the poorest in the country), where the TFR in 1985 was 9.3, while Managua had the lowest fertility, with a TFR of 4.1 the same year.

14. **Contraception.** The most recent survey available is a Contraceptive Prevalence Survey conducted in 1981 indicating that only 23% of married women of reproductive age were using contraception. Use declined significantly due to political and economic changes during the 1980s. A gradual erosion of family planning in the public sector services resulted in a current estimated modern contraceptive prevalence of 6.3%\(^4\) (Annex 1), the lowest in Central America, where the next lowest is Guatemala with 23% in 1987. The only country in the region that has such low use of contraception is Haiti, with prevalence of modern methods at 5%.

**Issues in Population**

15. The main population issues facing Nicaragua are: (a) high fertility, resulting in excess mortality for mothers and children, as well as in high population growth; and (b) lack of an adequate population policy.

16. High fertility increases health risks for women and children. The risks of pregnancy-related illnesses are highest for very young women, women over 35, and women who have already borne four or more children. Short birth intervals raise infant and child mortality for the most recently born child as well as for a previous child. Children born to very young women, older women, high parity women, and women in poor health are, like their mothers, subject to a higher mortality risk. The use of family planning can be a very effective means of reducing maternal and child mortality, as it would reduce the number of women at risk as well as the number of high-risk pregnancies.

17. Having the choice of when to bear children increase opportunities for women to engage in non-domestic activities and may, therefore, increase family education and income and allow for

\(\text{\textsuperscript{4}}\) Estimate based on coverage by MOH and PROFAMILIA (largest NGO in family planning in Nicaragua). A 1993 demographic and fertility survey sponsored by USAID will provide up-to-date information on contraceptive prevalence.
greater investment of time and resources in children. High fertility and poverty are mutually reinforcing conditions: while poverty encourages some families to have more children, it is also often the large number of children that prevent them from escaping poverty. High fertility takes women out of the labor market, often during their most productive years, or prevents them from attaining educational objectives. Poor families often cannot send all their children to school. Health consequences associated with high fertility for both mothers and children further worsens conditions of the poor who cannot afford proper care.

18. The public health system has assigned a low priority to the provision of family planning services, which are mainly carried out by the private sector. Initiatives for family planning services over the last decade have come mostly from relief agencies and the private sector, namely PROFAMILIA (Asociación Demográfica Nicaragüense); even so, the 6.3% contraceptive prevalence is far short of the MOH’s own estimate of demand—that more than half of women of childbearing age desire access to contraception. To meet this estimate of demand, 478,500 women would have to be covered, and just to maintain the current low level of coverage, an additional 44,000 would have to be covered by the end of the decade. As important as reaching all women desiring contraception is the quality of family planning services. Quality is mainly a function of accessibility of services, wide choice of methods, respect for clients’ sensibilities, and sufficient information about proper use as well as risks and benefits. Women who make informed choices about which contraceptive to use have fewer side effects and are less likely to discontinue using family planning.

19. Reducing high fertility will reduce the population growth rate, which is currently very high in Nicaragua. Assuming an optimistic decline in the population growth rate to 3.2% in 1995 and 2.9% in 2000, the population is projected to reach 5.2 million by the end of this decade (Table 5), with an increase of over 147,000 in the number of children under 5 years of age (a 22% increase), greatly compounding the already strained public capacity to provide maternal and child care. The number of women of reproductive age will also increase by 47%, from 1.03 million in 1990 to 1.52 million in the year 2000. There will be an additional 32% (210,000) school-age children (aged 7-12) who will require expanded educational services. Health, education, and other services will have to meet the requirements of twice as many individuals in the year 2025 as they do now.

20. The Government has expressed its intention to introduce intensive family planning education programs and improve the capacity of the health system to respond to the unmet demand for family planning services. In the meantime, donor sources and funds have multiplied and services are starting to be expanded. USAID is supporting PROFAMILIA to improve and expand family planning services, with the help of the International Planned Parenthood Federation (IPPF). UNFPA and the Norwegian Government are supporting a MOH maternal and child care project with a strong emphasis on family planning, with technical assistance from PAHO/WHO. In addition, a number of donor-funded agencies are providing technical assistance, training and logistical support for family planning to the MOH.

21. Firm GON commitment and intervention to curb rapid population growth are necessary because the rapid expansion of the population will have profound implications for every aspect of Nicaragua’s economy and society. If the economy cannot grow at least at the same pace as the population, the determinants of living conditions, especially income levels, would worsen on a per capita basis. Gains in GDP would be undermined by the increased number of persons to feed and dissipated in the support of a large non-working population. The creation of productive employment

5/ Letter of Social Sector Policies dated October 8, 1992 from the Minister of Finance, GON, addressed to the President of the World Bank.
opportunities would be overwhelmed by the more rapid increase in the numbers needing employment, leading to expansion in the ranks of the unemployed and underemployed. Development, both economic and social, would proceed more slowly than it would have otherwise, constrained by a large dependent population, composed mostly of children.

B. Poverty

Incidence of Poverty

22. As demographic data for Nicaragua are scarce, there is a dearth of information with respect to poverty trends. There can be little doubt that poverty in Nicaragua is not only widespread, but increased during the 1980s, affecting large portions of both rural and urban populations due to the fact that per capita income fell by over 50% between the late 1970s and 1990 (para. 6). The Ministry of the Economy (MEDE) estimates that by 1989, private consumption and real wages had fallen to 42% and 24%, respectively, of their 1977 levels.

23. For the period 1977-85, the GON estimated that 21% of the urban population and 19% of the rural population were in conditions of extreme poverty. In 1985 it was estimated that 70% of the country’s population was poor, of which 23% were in extreme poverty, and 16% in critical conditions of misery. The Atlantic region (North and South Atlantic and San Juan River) exhibited the highest proportion of people in critical conditions of misery (36%), followed by Region VI ( Jinotega and Matagalpa, with 25%) and Region V ( Zelaya Sur, Boaco and Chontales with 22%). Figures for 1989 show that poverty affected rural areas more severely than urban areas: 86% of the rural population was classified as living in poverty, versus 55% in urban areas; this is consistent with 1985 data showing that the population in critical misery in major urban centers such as Managua, Granada, and Masaya was below 7%. Available food consumption data show that between 1986 and 1989, the average per capita caloric and protein intake fell by 26% and 14%, respectively (para. 41). Consumption of staples did not necessarily fall in rural areas, however, since basic food crops (maize, beans and rice), mostly produced by peasants, increased in the same period.

24. Based on ESDENIC-85, the population at risk comprises: (a) 1.3 million children under 10 years of age, of which 75% live in poor households; (b) women, particularly those head of households (25% of all households are headed by women), of which 55% are characterized as poor; (c) war-affected population, approximately 600,000 persons (of these, 58% are displaced, 34% repatriates and demobilized, and 7.5% war victims); and (d) populations in the special zones of the North and South Atlantic regions and Rio San Juan (RAAN, RAAS, RSJ), 8% of the country’s population, which have been traditionally isolated from the rest of country.

Recent Trends

25. The stabilization program initiated in 1991 has involved an initial 400% devaluation of the cordoba, large price adjustments (March-April 1991), trade liberalization, financial sector reforms,

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6/ The last household survey at the national level took place in 1985, ESDENIC-85 (footnote 1), and the 1989 follow-up survey suffered from major data collection problems due to the war.


8/ The poverty index used to classify households was based on the presence of one or more of the following conditions: (i) inadequate quality of housing determined by dirt floors and/or walls and ceilings of tin or waste materials; (ii) crowding if four or more people sleep in the same room; (iii) low educational levels if there is at least one school-age child not attending school; and (iv) high dependency ratio, if there are at least two individuals economically dependent on a head of household who has not completed primary school.
downsizing of the public sector and its expenditure levels, and limiting the scope of state intervention in the economy (paras. 2-4). Foreign aid has played a major role in buffering the social costs of stabilization by providing grants of about US$500 million in 1991 alone, or over 20% of GDP. Unfortunately, no information is available to pinpoint the groups that have benefitted from this aid, as it is extremely difficult to obtain a clear picture about poverty trends over the last two years. A 1992-93 LSMS supported by the Bank, UNDP, USAID, UNICEF, and the Government of Sweden will help provide information on the true extent and distribution of poverty in Nicaragua. These data will be the basis for the preparation by the Bank of a poverty assessment during 1993.

26. Recent GON data estimate that open unemployment increased from 5.6% in December 1989 to 13.6% in December 1991, the latter representing about 188,000 workers. Available estimates on the evolution of real wages in the formal sector (including central government, autonomous agencies in the public sector, religious organizations, and private firms with five or more workers) show that they have increased since 1989.\footnote{Sebastian Edwards, \textit{Real Exchange Rate, Competitiveness and Macroeconomic Adjustment in Nicaragua: A Progress Report}, draft, February 20, 1992.} However, the formal sector is estimated to encompass only about 20% of the labor force, mostly in Managua (where approximately 64% of such jobs are located). On average, their annual wages were over four times per capita GDP in December 1991.\footnote{Ministry of Labor, \textit{Dirección de Empleo, Diciembre 1991}. This estimate of the formal sector is relatively consistent with data from INSSB data, showing a coverage of 15.5% of the labor force (average January-October 1991).} It is not known whether the wages of the more than 1 million workers in the informal sector have fallen relative to their past standing, or how these wages now compare with subsistence levels. In December 1991, the Ministry of Labor and the National Institute of Statistics and Census (INEC) estimated an underemployment rate of 46% or 553,000 workers. However, this figure might be exaggerated because the definition of underemployment differs from international practice and includes those working less than full-time and those whose earnings are below the minimum wage.\footnote{For example, it is highly questionable that 46% of the workers in the financial sector, and 31% of those in the utilities sector (power, gas, water) could be classified as underemployed (data from Ministry of Labor, \textit{Dirección de Empleo, Diciembre 1991}).} While there has been drastic reduction in public sector employment and demobilization of military personnel (para. 4), these workers received an average of 20 months' salary as severance payment, and therefore their welfare levels should not be presumed to have fallen.

27. Major shifts in prices took place throughout 1989 until April 1991. Notably, the rise of food prices appears to have been significantly lower than those for all other goods (Annex 2). Inflation was set back after the second quarter of 1991 and is expected to be around 10% for 1992. In general, lowering inflation brings relatively greater benefits to those living off fixed income, but in Nicaragua this seems to be a small group of the population. As of now, the Government has maintained some price controls, import quotas, and prohibition on the export of several basic grains which constitute the staple diet of the poor (beans, rice, maize); these products, however, are scheduled to be liberalized shortly. It is likely that the removal of these price controls will erode real incomes for net food-buying rural and urban households in the very short-term and benefit the real incomes of peasants, the main producers of basic grains. Most clearly, adjustment has affected the poor because of lower GON expenditures in real terms, especially in health and education, which negatively affect the availability of basic services, especially key inputs.

28. Although the current government took office without a defined short-term poverty alleviation strategy, a number of programs were started over the last two years. Main GON initiatives include: (a) the Social Investment Fund (FISE), intended to prevent further deterioration in the already
precarious living standards of the poorest groups of society while line ministries strengthen their institutional capacity and implement reform programs; (b) the Fund for Assistance to Oppressed Sectors (FASO), to provide immediate relief to special groups such as displaced and disabled persons; (c) the Micro-Enterprise Support Program (PAMIC) at the Ministry of the Economy (MEDE), to strengthen urban micro-enterprises in productive and service sectors, particularly those headed by women and youth; and (d) starting in 1992, the National Reconciliation and Rehabilitation Program (PRRN), to aid vulnerable population groups in regions affected by the war through special projects that would ease the reentry of these groups into Nicaraguan society.

29. Social Investment Fund (FISE). As of July 31, 1992, FISE had approved 549 subprojects for a total of US$21 million. The average size of subprojects is US$38,250. This is a significant effort considering that FISE is a new institution that has had to organize its administrative structure, recruit its staff, design its operating procedures, inform potential beneficiaries and executing agencies of its objectives and methods of operation, as well as coordinate with line ministries and agencies to complement their efforts. FISE finances a range of small-scale subprojects in the following areas: (a) social infrastructure; (b) economic infrastructure; (c) social services; and (d) community training for maintenance of subprojects. FISE is now close to reaching its goal of covering all 143 municipalities of the country. By June 30, 1992, 94% of all municipalities in Nicaragua had received financing for subprojects. In the future, FISE will devote a larger proportion of its resources to the financing of social infrastructure and social services subprojects essential for the development of human capital, the poor's only resource. Employment creation will remain an important objective, but less so than at the beginning of the economic reform program when it was the primary objective of FISE. Financing to cover subprojects, technical assistance, and an LSMS survey for the 1993-1994 period has been obtained, including US$25 million from IDA, US$16 million from IDB, US$13 million from the Government of Germany, US$3.5 million from the Government of Switzerland, US$0.7 million from the Government of Japan, and US$0.4 million from UNDP. The GON and beneficiaries will contribute US$6.3 million and US$3.1 million, respectively. (Annex 3 provides details on the FISE program.)

30. The National Reconciliation and Rehabilitation Program (PRRN). The PRRN consolidates several previously separate programs and attempts to resolve earlier overlap and coordination problems. It is administered by the Ministry of the Presidency, with support from the MOF and the Ministry of the Interior. The PRRN has defined as its target population demobilized personnel from the Sandinista and resistance armies, displaced groups, and peasants in extreme poverty, an estimated total of 604,000 persons. Priority areas are the departments of Madriz, Nueva Segovia, Jinotega, Rio San Juan, Matagalpa, Bluefields, and Boaco. As of August 1992, the PRRN was administering 8 different programs for about US$55 million, financed by several donors and the Government. Annex 5 provides available basic data on these programs, which are to be implemented over the period June 1990 to March 1997.

Issues in Poverty Alleviation

31. Major issues to be confronted by the GON with regard to addressing poverty alleviation include: (a) lack of a coherent strategic framework for short-term interventions, which has resulted in little or no coordination among various programs; (b) weak and diffused institutional capacity for

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12/ FISE was started by the GON in February 1991 with strong initial support from USAID, which transferred a US$10 million program from the Institute for Municipal Development (INIFOM) to FISE. Soon, the IDB came in with US$3 million for financing of subprojects and US$1 million for institutional development. This was complemented by a US$500,000 technical assistance grant from UNDP. The Government of Canada, through the Canadian International Development Agency (CIDA), has also approved US$1 million.
implementation; (c) poor coordination of foreign aid; and (d) lack of adequate financing for FISE, the most robust of Nicaragua’s short-term initiatives.

32. The GON has not clearly defined its strategy for poverty alleviation in the short term. More specifically, no priorities have been established between safety nets for the most vulnerable groups and those groups who need attention for security reasons (contras, compas, recontras, recompas, and revueltos). No definition of the most urgent problems has been carried out, and consequently target groups of safety net programs have not been clearly identified. This environment has allowed for the emergence of a number of programs with overlapping objectives and unclear division of labor (i.e., FISE, FASO, and PAMIC all aim to create emergency employment) and of target groups (i.e., FASO and PRRN both target displaced, demobilized, and war-affected people, while FASO and PAMIC both provide credits to informal sector workers). Only recently has the Government started to improve coordination between programs for war affected populations (para. 30). Indeed, little effort has been made to promote complementarity among interventions. It is also unclear how these programs fit within the GON’s broader social strategy and overall macroeconomic policies. Further, no linkages have been established between short-term interventions and medium-term reform programs in the social sector agencies. It would even appear that some interventions have been inconsistent with such policies (e.g., FASO’s provision of subsidized credit to informal sector workers), while others may be creating additional recurrent expenditures for the GON. As a result, sometimes contradictory interventions have been implemented, such as construction of health facilities and schools without considering the availability of resources at the MOH and MOE to provide resources necessary for operations (such as personnel, inputs, and maintenance).

33. With the exception of the FISE and possibly the PRRN, the majority of the programs, if expected to be continued for extended periods, have still to define suitable institutional configurations, modes of operation, and financing arrangements. There are no estimates of total actual costs of the short-term programs, and cost information of individual programs is often conflicting even among participating agencies. Most programs do not benefit from staff with the necessary technical skills, specifically in the areas of project design, monitoring, or evaluation, methods of targeting, and financial management. This current state of affairs undermines the potential effectiveness and impact of short-term GON poverty alleviation efforts by spreading too thinly its limited institutional capacity.

34. Without an overall GON strategy, targeting and coordination of foreign aid is inadequate. At present, different programs initiate separate and competing funding requests for donor support that lack strategic rationale and adequate total cost estimates (particularly regarding recurrent costs). Donors are thus faced with a "shopping list" of diffuse initiatives and as a result, exert undue influence on the content of programs and further contribute to the fragmentation of strategic initiatives. Instead of aid going to support established priorities, priorities end up being set based on the aid that can be mobilized.

C. Water and Sanitation

Trends

35. Nicaragua has an abundance of water resources throughout the country. Contamination is prevalent in urban areas, however, and water systems coverage in rural areas is insufficient: while from 1980 to 1989 coverage in urban areas increased from 67% to 78%, coverage in rural areas over the same period increased only from 6% to 18%. Poor piped water quality is a major problem: in
1987, only 2.6% of the population consumed chlorinated water. Of those who have access to piped water, half regularly experience losses and/or inadequate capacity; this creates a breeding ground for system contamination and disease—in 1989, 36% of water quality samples taken in Managua by the MOH tested positive for bacteria. Sewer coverage did not increase significantly in the 1980-1989 period, servicing about 32% of the population, according to the Instituto Nicaragüense de Agua y Alcantarillado (INAA), the enterprise in charge of the country's water and sanitation. In rural areas, only between 9 to 16 percent of the population have latrines; an estimated 120,000 additional latrines are needed. Urban coverage ranges from 65% in Managua to only 6% in Boaco.

**Issues in Water and Sanitation**

36. Inadequate coverage of water and sanitation services results in consumption of poor quality water, causes the high incidence of water-borne infectious diseases, and limits the impact of health interventions. Main issues include the need to improve coverage and service quality, particularly for rural areas and the poor, sustainability of investments through cost-recovery, and lack of definition of the roles of INAA, MOH, municipalities, and communities for the provision of urban and rural water and sanitation services.

37. Rural areas have been assigned little priority. Of the US$145 million included for water and sanitation in the Public Investment Program for the next five years, only US$14.1 million (9.7%) have been assigned to rural areas, where 40% of the population live. Even though PAHO has committed to provide 10,000 latrines for Managua, and the Ministry of the Presidency (MINPRES) has pledged resources for 10,000 more, no plans exist to mobilize additional resources for water and sanitation, as well as hygiene education, particularly for rural areas.

38. The sustainability of water and sanitation services in urban areas is hampered by major water losses and consequently reduces revenues, which are crucial for maintenance. The system for meter reading, billing, and collection is inadequate and INAA's real costs are understated, thus preventing the setting of an appropriate tariff system. An equally important problem is that rural areas receive little financing (mostly from external donors) and INAA does not have the capability to ensure the maintenance and operation of the few investments that take place in these areas.

39. Although it has the mandate to cover the entire country, INAA operates principally in the cities. Furthermore, INAA is currently fully occupied with an IDB-financed project to improve the water systems in 15 cities. Even though the agency has a Directorate for Rural Water (DAR), no important programs to increase coverage in rural areas have been carried out over the last two years. The only agencies to support water projects in small rural communities have been UNICEF, CARE, and other NGOs. Only recently did INAA enact a policy requiring all future rural and marginal urban development projects to have a health education component, and all rural projects to include latrines.

40. **Role of Water in Sanitation in Health Issues.** The MOH's role in this sector is to establish, in conjunction with INAA, health standards for water quality and preventive interventions such as hygiene education. The threat of cholera in 1990 was the catalyst for the MOH's most successful campaign by adopting a preventive, rather than curative, approach to health interventions. The health volunteers, the *brigadistas*, have been effectively used to disseminate information on proper water and sanitation usage and hygiene practices. This preventive approach reduced mortality
and morbidity from diarrhoeal diseases by 46% and 10%, respectively, between 1990 and 1991.\textsuperscript{14} In the short-term, FISE is expected to help improve the provision of water and sanitation services, particularly in rural and urban marginal areas. FISE will operate in close coordination with INAA to ensure that water and sanitation systems are properly maintained. In the longer term, a decentralization of management responsibilities to municipalities needs to be defined.

**D. Nutrition**

**Trends**

41. **Food Consumption.** Between 1986 and 1989 it is estimated that the average per capita caloric and protein intake fell by 26% and 14%, respectively, to 14% and 25% below the recommended daily minimums of 1,850 calories and 50 grams of protein (Table 6). While middle-income urban households met recommended caloric needs and exceeded protein requirements, the caloric and protein intakes of poor urban households were, respectively, 37% and 30% below critical minimums. Even after 1987, when food prices held against inflation and supplies increased, access to food decreased for the groups most in need because of declining real wages and Government channeling of food aid to public employees and the military ("AFA" program, para. 45).

42. **Child Malnutrition.** In 1966 an INCAP nutritional survey found that 57% of children under the age of 5 suffered from mild malnutrition. This increased to 68% in 1977, then declined to 56% in 1980. The MOH estimates moderate and severe malnutrition to be 13% among children less than 6 years old, with an additional 20% at risk. Prevalence of infant and child malnutrition range between 10% and 20% throughout the country, except in Managua, which has a 7.85% prevalence.\textsuperscript{15} In the 1986 MOH-INCAP survey, stunting was found in 22% of children 6-9, an indication of chronic malnutrition.\textsuperscript{16} In a 1989 goiter survey, goiter prevalence was found in 3.9% of the 6-14 group, significantly lower than the 14% found in 1977, but still higher than the 3% prevalence found in 1981. These results were better than expected, given that the salt iodination program initiated in 1978 has not operated properly since 1985 due to the lack of iodized salt in the market.

43. **Maternal Malnutrition.** Maternal nutrition has not been measured in Nicaragua, with infant weight at birth the only proxy indicator available. UNICEF has estimated that 27% of children are born with low birth weight (under 2,500 g.), considerably above Central America’s average of

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
\textbf{Year} & \textbf{Calorie} & \textbf{Protein} \\
\hline
1986 & 116 & 89 & 104 & 89 & 67 & 78 & 86 & 75 \\
\hline
\end{tabular}
\caption{Nicaragua Calorie & Protein Consumption 1986-1989}
\end{table}


\textsuperscript{15} These figures are likely to understated the real extent of child malnutrition because of: (i) the indicators used (weight/height); (ii) the cut-off point of less than 2 S.D. from the mean; and (iii) the self-selected nature of the sample (children who frequented health posts, an estimated 25% of the population aged 0-6).

\textsuperscript{16} Stunting is defined as a deficit in height/age of -2 S.D. from the mean.
15%. The only well-designed study on birth weight was carried out in 1984-85, documenting all births within a three-month period, with prevalence of low birth weight to be 7.5% at the national level and 9.7% in Managua. This is consistent with more current MOH reports showing that about 10% of the babies born in hospitals (44% of live births) are underweight.

44. **Breast-Feeding**, which provides infants with immunity against common infections and aids birth spacing, has been steadily declining in Nicaragua. A 1975 study found that 58% of urban women and 69% of rural women breast-fed their children. In 1983, 87% of the mothers breast-fed their newborn, but one week later, only 50% did so exclusively, and only 10% continued the exclusive practice during the first four months. Of those women who ever breast-fed, 45% had completely discontinued this practice before the child was 6 months old. A later study in Managua found that 46% of the children under three months were still being breast-fed, and that 67% of those between three and five months were already weaned.12/

**Nutrition Interventions**

45. The "AFA" (rice-beans-sugar) program, the best organized food delivery program in Nicaragua to date, was initiated in 1987 by the previous administration and implemented by the MOF to counter declining real wages, paying government employees in part with food subsidies. The number of beneficiaries was 300,000 in 1989, 164,000 in 1990, and 128,000 in 1991. The food was financed by the GON and donations, with beneficiaries paying a 40% share. In 1991, the total cost for the GON was US$6 million or 1.8% of the central government recurrent budget, of which 8.6% covered distribution costs. Realizing that the program was not targeted to the groups in most need of food assistance, but to middle-income people, the current Government terminated the program at the end of 1991, monetized the subsidy and transferred it directly to beneficiaries’ salaries.

46. **Interventions through the Health System.** In 1982, with the support of the WFP, the MOH initiated a maternal and child nutritional program designed to provide food supplementation to 76,900 poor families. Because of lack of counterpart funding and logistical constraints (such as poor warehousing and inadequate distribution arrangements), the program has only been able to reach an average of 7,000 families per year and distributed only 14.3% of the programmed assistance between 1988 and 1990.18/ Another intervention was a breast-feeding campaign, developed in 1980 by the MOH to counter the significant decline in breast-feeding. Unfortunately, due to lack of continuity and an inconsistent approach by MOH and the Nicaraguan Institute of Social Security (INSSBI), few and short-lived results were attained.19/

47. **Interventions through Other Sectors.** INSSBI operates 292 day-care centers for pre-school children in poor rural and urban areas under different modalities, with a total coverage of 24,290 children. While these centers reach poor children, norms about diets, nutrition requirements or food preparation do not exist, except in Matagalpa and Jinotega. Food is obtained according to local availability or is donated by different agencies. During 1989 and 1990, a "Glass of Milk" program to distribute milk to preschool and primary school children in the first two grades was implemented by the Ministry of Education (MOE), MOH, and the Nicaraguan Food Program *(Programa Alimentario*

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18/ The monthly ration per family includes 7 pounds of powdered milk, 7 one-pound cans of meat, 3.5 liters of vegetable oil, and 20 pounds of wheat. Between 1988 and 1990, about 2,425 metric tons of food were distributed.

19/ As an example of contradictory interventions, INSSBI provided infant formula at subsidized prices and the MOH distributed formula and bottles through health posts and centers, concurrently with a breast-feeding promotion campaign.
Nicaragüense, PAN). Financing was provided by EEC, WFP, and MOF. About 250,000 children, or 62% of those in preschool and the first and second grades of primary school, were covered by the program. An unstable supply of donated milk and GON financial constraints led to the termination of the program in 1991. A number of small programs do exist, funded by the donor community through public sector institutions and/or NGOs, and whose contents range from integrated rural development and food-for-work to one-time food donations.

Issues in Nutrition

48. The main issues to be addressed by the GON are: (a) lack of a coherent nutritional policy; (b) low priority of nutrition activities in MOH’s PHC program; and (c) limited GON financial commitment to nutrition interventions, compounded by a lack of institutional capacity for program implementation.

49. The main causes for the high prevalence of malnutrition are widespread poverty, inadequate coverage of water and sanitation, of prenatal and postnatal care and well-baby check-ups, and insufficient attention to nutrition education. The lack of a coherent nutritional policy has generated disconnected and sometimes contradictory interventions, and there appears to be a mismatch between what is done and what is needed. Considering that more than 70% of child deaths in hospitals are related to malnutrition, this policy vacuum is leaving the most vulnerable groups (children 0-5, pregnant and lactating women) clearly under-served. Although there is great interest on the part of donor agencies, the disaggregated nature of GON policy-making and budget allocations, compounded by institutional weaknesses throughout the public sector, has left a void of leadership that frustrates donor agencies’ efforts.20/

50. The lack of financial support from the GON for nutrition programs has been a major reason for their poor implementation record and/or termination. Logistical bottlenecks for program management in the sector institutions remain a large concern, with, so far, little response from the GON. For example, reported wastage of food at the MOH due to inadequate storage and inability to provide transportation for timely distribution of food resulted in spoilage of 28 tons of wheat flour in 1991.

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20/ Several proposals have been put forth by the donor community and INSSBI, with little response from the Government. UNICEF and WFP are interested in augmenting the coverage of the INSSBI day-care centers program from 24,000 to between 70,000 and 100,000 children; the expanded program would target children 0-6 from low-income families (earning less than US$80 per month), with priority for malnourished children, and those from female-headed households. UNICEF is also interested in supporting INSSBI to implement a pilot program of community-based day-care centers patterned after Colombian and Venezuelan models, with WFP providing the food.
E. Health

Trends

51. Although the health care system potentially reaches 70% of the population, Nicaragua remains at a pre-epidemiological transition stage with high mortality caused by infectious and parasitic diseases (particularly among the very young) and high fertility.

52. General Mortality. The general mortality rate in the country is 10.08 per 1,000 inhabitants, with the highest rate (72/1,000) among infants (Table 7). Diarrhoeal diseases are by far the leading cause of mortality. Perinatal diseases follow, then accidents and respiratory diseases. Chronic diseases are common causes of death in adults but they are far behind the infectious diseases (diarrhoeal diseases, respiratory diseases, and tuberculosis) (Annex 4).

53. Infant Mortality. Even though infant mortality has been decreasing steadily, this decrease has been slower than in other Central American countries and still remains comparatively high (Table 8). Infant mortality rates vary by region and by degree of urbanization. While the infant mortality rate for the country as a whole for the period 1982-1983 was 83/1,000, it was 55/1,000 in the urban areas of Estelí, Madriz, and Nueva Segovia, and over 110/1,000 in the rural areas of Matagalpa, Jinotega, Chinandega, and León (Annex 6). Diarrhoeal diseases, perinatal causes and respiratory diseases account for 78% of all infant deaths. Between 1987 and 1989, infant deaths due to diarrhoea increased (Annex 7, p. 1).

54. Maternal Mortality. In 1989, the maternal mortality rate was estimated at 159/100,000, higher than in Honduras (113/100,000) and El Salvador (140/100,000). Main causes of maternal mortality are hemorrhages, toxemia and sepsis; one-third of maternal deaths is the result of induced abortions. Nicaraguan women face high reproductive risk as a consequence of high fertility and low birth spacing, especially those under 19

21/ Source: National Vital Registry System, corrected for unreporting, and adjusted according to general mortality rates estimated by INEC.
years old. Only 44% of deliveries were in MOH hospitals in 1989. About 75% of home deliveries are attended by traditional birth attendants.

55. Morbidity. Nicaraguan morbidity statistics are incomplete. About 10% of all visits to MOH facilities are for infants. There are no age-specific data available on the causes of outpatient visits, but reportedly acute respiratory infections (ARIs) and diarrhoeal diseases are the two leading causes of consultation for all ages. In 1987, the leading causes of hospitalization for infants were diarrhoea, perinatal illness, neonatal respiratory distress and intra-uterine growth retardation. Fifteen percent of all outpatient visits in 1987 were for children 1-5 years old. The main causes of hospital consultation for this age group are diarrhoea, pneumonia, bronchitis/asthma, burns, and malnutrition.

56. Diseases of obligatory notification show an increase in sexually transmitted diseases, especially gonorrhreal diseases since 1986, as well as an increase in tuberculosis in Atlantic Regions North and South and in Regions II (Chinandega, León) and III (Managua). Intoxication produced by pesticides has also increased steadily over the last four years. There are only 8 reported cases of AIDS in the country, 2 registered in 1988, 2 in 1989, and 4 in 1990. Vector borne diseases, especially malaria, have increased in the last years (39% between 1988 and 1989 to reach 46,000 cases). Sixty percent of malaria cases in 1989 were in Region II, an increase of 169% over the previous year.

Organization of the Health Sector

57. Health care is largely the responsibility of the MOH, which handles a network of 833 urban and rural facilities fairly well distributed throughout the country. The target group for the public health system encompasses over 95% of the population; it is estimated that NGOs and private providers serve about 4% of the population, with services mostly limited to outpatient curative care. The MOH is the second largest ministry and received 19% of the central government budget in 1991. The MOH employs an estimated 23,000 persons (50% more than in 1980), which account for about 30% of all public sector employees.

58. In the 1980s, the MOH was organized in a central office, six regions, and 91 health areas grouping one or more municipalities within each region. Planning, programming and administrative and financial management remained substantially concentrated at the central level. Regions had authority over general programs and some control over personnel in their respective catchment areas, and managed between 15-20% of the health budget. Health areas were to direct and coordinate

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22/ It is estimated that 21% of live births occur in women between the ages of 15 and 19. Barry D. Smith, The Nicaraguan Health Sector. Op Cit.

23/ In 1979, the health system had 23 agencies providing health care to 17% of the working population. These were the MOH, INSSBI, the National Board for Social Welfare (JNAPS) and 19 Local Boards for Social Assistance (ILAS). In the 1977 budget, INSSBI received 37% of sector funds, MOH 25%, JNAPS 10%, and ILAS 26%. In practice, over 90% of the medical services were directed to 10% of the population. The FSLN Government unified all these entities under the MOH shortly after taking power.

24/ In 1987, NGOs and the private sector operated 7 hospitals with approximately 200 beds, over 200 clinics, and 275 pharmacies. It was estimated that about 228 physicians maintained some kind of private practice. MOH, Plan de Salud 1988-1990, 1988.

25/ A preliminary survey of positions at MOH shows that the actual number of employees may be less than 23,000, which would imply that some employees may be holding more than one position. The MOF is currently following up on this issue with the MOH.

26/ Which included per diems, food, office and janitorial supplies, some chemicals, and minor equipment and infrastructure repairs.
activities of the health system at the municipal level, but only a few actually functioned. In a major policy initiative, the MOH is currently reorganizing the ministry through the establishment of 19 Local Systems of Integrated Health Services (SILAIS) at the district level, instead of the previous regional and area structures.

59. During the 1980s, the health system augmented its network threefold (Annex 8, p. 1). As of 1990, the MOH system provided services through 432 health posts, 232 medical posts, 114 health centers without beds, 25 health centers with beds, and 30 hospitals. Support services include 13 teaching units, 25 warehouses, and 14 administrative offices. These facilities are staffed by some 1,290 physicians, 2,000 nurses, and 3,400 auxiliary nurses. There are also over 20,000 trained health volunteers (brigadistas) and about 6,000 trained community birth attendants who are not part of the MOH staff. The public health services by the MOH are provided at the primary and secondary levels.

60. At the community level volunteers and birth attendants serve as MOH outreach agents. Despite the attainment of a remarkably high level of community participation in health activities, major weaknesses have hampered the effectiveness of these workers (para. 64(c)). The community level is supported by two levels of MOH health facilities. The primary level includes health and medical posts and health centers. Health posts serve populations of less than 5,000 and are attended by one or more auxiliary nurses, providing basic primary care services and, in some cases, supervising community level workers. Health posts receive periodic physician visits (two to three per week). Medical posts provide the same services, but are permanently staffed with a physician. Health centers serve populations between 5,000 and 20,000, are generally located in municipal capitals. They are attended by several medical doctors, dentists, nurses, auxiliary nurses, technical staff, with administrative and janitorial support. They provide medical consultations, PHC, emergency care and referral, and odontological, pharmaceutical, radiological, and laboratory services.

61. The secondary level of care is provided by general and national hospitals. General hospitals provide the basic services (pediatrics, gynecology, obstetrics, internal medicine, and surgery), are located in departmental capitals, and serve as referral points for the lower levels. A few (6) provide other specialty services in addition to general services to provide referral services in each geographic region. National hospitals include large referral hospitals and provide specialized services such as maternal care, ophthalmology, oncology, rehabilitation, and others.

Main Issues in the Health Sector

62. For over a decade Nicaragua has undertaken a major effort to improve the health status of its population. In spite of central government efforts, the gains have not been as great as one might have expected. A number of factors are responsible for the health system’s inability to attain a more sizable improvement in the health status of its population. First, the lack of a coherent strategy framework, which would have established defined priorities and allocated resources accordingly, resulted in a disorganized and unsustainable expansion of the health system. Second, the inadequate delivery of basic PHC services evidenced by an excessive emphasis on expensive curative care, poor integration of programs, inappropriate use of community participation, and deterioration of facilities and equipment, dissipated resources and efforts and hampered greater improvement in the

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27/ Restructuring of the MOH into SILAIS has not been completed. See paras. 66-67 for issues relating to proposed model.

28/ These volunteers participated in People’s Health Counsels established at the local level. They were trained by MOH throughout the 1980s to work in their communities and participate in MOH health campaigns.
population's health status. Third, inadequate management of resources as shown by unbalanced staffing patterns, poor administration of pharmaceuticals and medical supplies, deficient supervision, and lack of an integrated MIS, contributed to a management culture that lacks standard procedures, strategic planning, and technical proficiency. And fourth, financing practices in the sector led to misallocation of financial resources, inefficient use of resources, inadequate targeting of foreign assistance, and an unsustainable level of government commitment.

63. **Lack of Coherent Strategic Framework.** While the MOH's *Plan Maestro (1991-1996)* under the current government correctly emphasizes strong PHC, community participation, and decentralization, it needs to establish clear operational priorities that realistically confront both the MOH's budgetary constraints and its low institutional capacity. Operational strategies and quantitative objectives for the implementation of the *Plan Maestro* have only recently started to be defined and articulated.

64. **Inadequate Delivery of PHC Services.** Despite the professed emphasis on PHC, infant mortality did not decline between 1985 and 1990, diarrhoea as a cause of infant deaths increased between 1987 and 1989, and immunization coverage among children 0-5 years is still too low to prevent outbreaks (coverage against polio stands at a reasonable 72%, but coverage for DPT and measles, at 21% and 24%, respectively, are still very low (Annex 8, p. 2). A measles outbreak in 1990 resulted in 400 deaths and over 1,000 cases. Although ARIs are a major cause of death and morbidity, the MOH is only now developing treatment norms and staff training programs. The major shortcomings limiting MOH's effectiveness include:

(a) **Need for emphasis on preventive care.** Doctors and hospitals are called to cure what could have been more easily (and less expensively) prevented by non-physician personnel at the primary and community level. PHC staff leans disproportionately toward physicians (25%). Physicians are not appropriate personnel for most PHC needs, where most of the activities which have a major impact on child and maternal health only require well-trained auxiliary nurses. Physicians are also more expensive than auxiliary staff (earning about three times more). While MOH's total number of consultations increased over 10% per year in the 1985-1989 period, averaging 1.7 consultations per capita, preventive consultations per capita in 1989 were only 0.5.

One of the most telling examples of this curative bias is the approach to the control of diarrhoeal diseases. Since 1979, the MOH has promoted the use of oral rehydration salts (ORS) through the creation of Oral Rehydration Units in about 80% of all health facilities and the launching of several health campaigns. Results have been disappointing, however, mainly because the MOH neglected preventive activities such as environmental sanitation, hygiene, and nutrition education.

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29/ In 1978, infant mortality was at 98/1,000 of live births; in 1985, the rate had come down to 72/1,000 where it remained until 1990 (MOH statistical reports, various years).

30/ Infant mortality due to acute diarrhoeal diseases increased from 34% to 40%. MOH evaluations, 1988 and 1990.

31/ MOH, 1990. All funding for vaccines and the cold chain is provided by PAHO, UNICEF, and other donors.

32/ Development of the ARI program is being supported by FINNIDA.

33/ ORS are produced by a local producer, funded by UNICEF and distributed by MOH.

34/ For example, in June 1988 the "National Campaign for the Defense of the Lives of Children" was launched through community health volunteers and inter-institutional and community committees in each municipality. In 1989, the MOH launched another campaign which kept diarrhoea cases from increasing but, because resources were switched to this campaign, also reduced the effectiveness of other programs.
(b) **Poor integration of programs and inadequate referral system.** The delivery of PHC is organized through vertical programs which are independent in policy, human resources, and equipment. As typically found in health facilities, immunization is provided in one room, growth monitoring and nutrition education in another and by different personnel, and prenatal care in yet another room. Postnatal care is separated from family planning. This organization of services leads to duplication of personnel and resources and to low efficiency in services delivery. Although there was increased access to PHC during the 1980s, the referral system did not work properly, with many people bypassing the primary level and seeking services directly at hospitals. Major shortcomings of the referral system included: (i) limited skills of new doctors who were mostly assigned to PHC facilities; and (ii) low resolution capacity at the PHC level due to, *inter alia*, inadequate treatment norms, poor supervision, and lack of medicines, medical supplies, and equipment. A study in Manolo Morales Hospital found that 70% of the patients treated in the emergency department had no medical need to bypass their local PHC facility. In 1986, it was estimated that 90% of the diarrhoea cases attended by physicians could have been treated by auxiliary nurses at the primary level.

(c) **Inappropriate use of community participation.** While the health sector attained remarkably high levels of community participation during the 1980s (paras. 59-60), the contribution of volunteers has not been as effective as it could have been because: (i) community participation was mainly directed to support the MOH’s campaign strategy which involved volunteers in short-term activities rather than in routine, continuous community-based health care activities. This approach resulted in narrowly defined training programs and did not integrate preventive activities at the community level into PHC programs; (ii) influence of political motivations in the *brigadistas* movement; and (iii) MOH’s lack of emphasis on preventive PHC strategies. The successful cholera prevention campaign (para. 40) may have proved a turning point in the MOH’s strategy for effective use of the high level of community participation. The MOH has started to reorient the work of the *brigadistas* toward continuous community-based health care activities.

(d) **Poor condition of facilities and equipment.** Health facilities at all levels are in generally poor conditions due to years of lack of maintenance. It is estimated that of the existing 31 hospitals, 4 need substitution and 14 need rehabilitation. At present, no information is available to determine rehabilitation needs at the primary level. Preliminary estimates indicate that over 70% of health posts and centers need rehabilitation, at a cost of approximately US$15 million. A survey of the PHC network’s rehabilitation needs is being carried out with support from the Japanese Grant Fund (managed by IDA) and PAHO. A computerized database detailing rehabilitation needs for all health centers and posts will be available in the first quarter of 1993. Equipment and vehicles at all levels are also in disrepair, with spare parts unavailable because of their obsolete nature or because the wide range of donors and countries (mostly socialist countries during the 1980s) does not permit bulk or standardized purchase of replacement parts. It is estimated that about half of all MOH medical equipment, including emergency generators and water pumps, are in need of repair. As a result, services provision has been compromised and working conditions for health personnel are extremely poor. Major reconstruction, refurbishing and re-equipment of facilities are required to bring the network to a minimally functional standard. A partial survey of facilities indicates that a number of health posts and units do not belong to the

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35/ It is reported that during the mid-1980s, while patients with routine illness started queuing up outside hospitals, urban health centers and posts sometimes were without patients.
GON, or have no recorded titles. This issue will have to be addressed by the MOH in the formulation of its infrastructure rehabilitation plan.

65. **Inadequate Management of Resources.** Years of economic crisis and war have prevented the adequate establishment and development of the MOH's institutional capacity. Staffing patterns, management of pharmaceuticals and medical supplies, and supervision and information systems are all areas of critical need, impeding the health system's ability to effectively provide basic services to the population.

(a) **Staffing patterns.** The staff skills-mix is inadequate (Annex 8, p. 4) and its quality poor, largely due to: (i) an excess number of physicians and critical shortage of paramedical staff, with a nurse:physician ratio of less than 1:1 compared to the international norm of 4:1.\(^{36}\) Only 53% of physicians on staff provide full-time direct service, while 30% hold administrative positions that remove them, at least part of the time, from providing direct care to patients. The proportion of specialists among MOH physicians, 42%, is also too high for the country's health profile, and 76% of these specialists are located in the cities of León and Managua. Annual increases in the number of doctors appear to be the driving force behind this staffing pattern, since by collective agreement with the unions, they must be hired by the MOH upon graduation from medical school. Medical schools have been producing over 350 physicians per year since 1985, far too many for the needs of the MOH. Their professional skills are apparently low due to the poor quality of medical school teaching,\(^{37}\) and since training remains heavily oriented toward hospitals, with little learning time devoted to primary ambulatory care or PHC; and (ii) an oversized administrative staff (20% of all MOH personnel in 1991) by high turnover rates (30% annually over 1987-1990), also accounts for insufficient skills and poor administration. This staffing pattern has worsened with the implementation of the Occupational Conversion Plan of 1990, which purported to reduce public sector employment. Out of the 2,952 MOH staff who voluntarily participated in the plan, only 89 were physicians (of which only 4 were specialists); more importantly, however, 267 health inspectors, 320 nurse auxiliaries, 135 professional nurses, and 121 medical technicians were lost, the very categories of staff the MOH should be increasing to be able to implement its espoused PHC priority.

(b) **Pharmaceuticals and medical supplies.** Total consumption of pharmaceuticals and medical supplies in Nicaragua in 1991 is estimated at about US$39 million (about US$10 per capita). During the 1980s, pharmaceuticals were provided either free of charge or at heavily subsidized prices, resulting in large state expenditures. Realizing its inability to sustain this level of subsidy, the GON liberalized the pharmaceutical market in 1990, leading to a tremendous development of the private sector, with a total market estimated at US$13 million (US$3.4 per capita) in 1991; the number of private importers increased from 8 in 1990 to 67 in 1992 (only 49 of which, however, are registered) and private pharmacies increased from 200 in 1990 to 437 in 1991. The country's pharmaceutical industry, which had played a prominent regional role before the 1980s, has also recovered. with 17 laboratories (two of which are public, SOLKA and ENISUERO) and total sales estimated at US$13 million in 1991. Four major issues are affecting the pharmaceutical sector:

\(^{36}\) Between 1980 and 1987, the MOH increased the number of nurses fivefold and that of auxiliary nurses tenfold. Apparently, poor training, lack of career development opportunities, and difficult working conditions still frustrate MOH efforts to add to its nursing corps.

\(^{37}\) During the 1980s, the number of doctors in training rose tenfold while classrooms, textbooks and laboratory supplies hardly changed. At the same time, many of the best teachers either left the country or took managerial positions at the MOH.
(i) **Waste of resources and chronic shortages of drugs and medical supplies in the public sector.** By international standards, the GON is spending a relatively high amount on drugs and medical supplies (over US$5 annual per capita spending in 199138), with very little results. Three major factors explain the failures of the pharmaceutical supply system within the public sector: [a] inadequate organization of pharmaceuticals and medical supplies management; [b] deficient information system to forecast the needs of MOH facilities, in particular poor inventory practices at all facility levels (hospitals, health centers and posts); and [c] lack of control over the procurement and distribution systems evidenced by an excessive number of steps in the distribution chain, uneven distribution of warehouses (there are six in Managua alone while few adequate ones exist elsewhere), high operating and maintenance costs of the MOH’s vehicles fleet, and widespread diversion of drugs to the open market.

(ii) **Overconsumption of high-cost and inappropriate drugs.** Three factors contribute to this problem: [a] unqualified prescription practices, mainly because prescribers are not aware of cost-effective patterns of drug utilization and the MOH has still to develop treatment guidelines; [b] insufficient attention to prices in the essential drugs list; and [c] high price of certain categories of drugs in the private market. The growth of the private market has not yet resulted in savings due to the increasing dominance of expensive brand-name products over generic drugs, caused by the marketing strategy of large companies, and due to market distortions such as higher authorized mark-ups for brand-name products vis-à-vis generics (para. 65(a)(iv)). Purchasing of products in small batches by a fragmented and under-capitalized private sector also contributes to unnecessarily high retail prices.

(iii) **Presence of low-quality products.** The GON’s lack of enforcement capacity has allowed the importation of non-registered products by non-accredited firms, which results in a high risk for consumers’ health, as some unsafe products are already on the market.

(iv) **Constraints to the development of the local industry.** Apparently, local manufacturers, especially the ten major laboratories, are selling brand-name products at a lower price than their imported equivalents, and have the productive capacity and the know-how to produce generics at a competitive price. However, four factors undermine the development of the local industry: [a] widely varying tariffs for different pharmaceutical products and imports (e.g., the raw materials and active ingredients have higher tariffs than imported drugs); [b] higher authorized mark-ups on brand names compared to generics, which provide incentives to produce the former; [c] development of an informal and illegal sector

38/ Including support provided by donors to the MOH, total public spending in drugs on per capita basis increases to US$7.

39/ Currently, there are two bureaus at the MOH. The CIPS (Centro de Insumos Para la Salud), an autonomous agency under the purview of the MOH was created (Executive Decree No. 20/92, April 6, 1992) to succeed COFARMA, the public enterprise previously in charge of management of drugs and medical supplies in the public sector, is charged with the procurement and distribution of drugs. The MOH’s Procurement Directorate (DAM) is responsible for regulation activities and for preparing procurement plans based on the requirement of MOH facilities. However, the CIPS is de facto carrying out both functions due to the inability of the DAM to prepare procurement plans. This situation results in a lack of transparency in the system and mismanagement of resources.
populated by drug peddlers and non-accredited importers, which presents unfair competition to local producers; and [d] the significant investment in machinery and equipment required to improve the competitiveness of local producers.40/ Most of these problems are due to a lack of regulations and poor GON enforcement capability. In order to resolve them, the MOH needs to develop an adequate regulatory framework for both public and private sectors in coordination with the MEDE.

(c) Supervision. The accelerated expansion of the health system was not coupled with the development of a supervision system to adequately monitor the delivery of services. Without this management tool, the MOH lacks regular feedback mechanisms between central and local levels and the capacity for on-the-job evaluation and training of service delivery personnel; this partly explains the poor quality and inefficiency of services and unqualified practices among health providers. A 1985 study of diarrhoea deaths showed that 34% of the patients had received medical treatment on three or more occasions in the recent past, and 30% had been hospitalized. Another study in Managua in 1989 showed that 87% of the children who had died of diarrhoea had actually used ORS.

(d) MIS. The MOH MIS is still at an embryonic stage despite the widely recognized need for reliable data for policy-making, planning, and management purposes. There is no personnel information system, and financial, accounting, pharmaceuticals and inventories information systems are highly inadequate. INEC and UNICEF estimate that unreporting in the vital statistics system is over 47%. The percentage of total births actually registered fell from 80% in 1980 to 65% in 1985, and that of registered deaths fell from 42% in 1980 to 32% in 1985 and 26% in 1988. That year, only 3,841 infant deaths were registered, while the actual number was estimated at over 11,500. As an exception, the information system for services provided is well developed.41/ An epidemiological and nutritional surveillance system was established in 1988. This system collects data from every health unit where children under-5 are checked-up, weighed, and measured. Although personnel at the facility level usually prepare reports with health information and indicators, the system is cumbersome and fragmented, with much of the information failing to be collated, analyzed, and disseminated in a manner timely enough to be useful for day-to-day management and long-term policy formulation.

66. Decentralization: Implementation of SILAIS. The reorganization of the health system's current regional and area structure into 19 local structures (SILAIS), which roughly correspond to the political departments, is intended to integrate the health care system and allow for decentralized management control and autonomy. SILAIS will decentralize the direction and coordination of all levels of health services under their respective jurisdictions by administering financial, physical, and human resources, distributing resources among levels of care and municipalities, and encouraging coordination with other institutions both public and private. The configuration of SILAIS has begun with the following components: (a) review of the model of services provision to match local health needs and strengthen preventive care; (b) development of the managerial structure for financial, material, and human resources, to determine authority of the central and SILAIS levels and their linkages; (c) development of an MIS; (d) integration of previously separate vertical programs (para.

40/ With the exception of SOLKA and ENISUERO, there were practically no resources for investment during the 1980s, resulting in obsolete equipment and machinery, especially for packaging.

41/ This includes data on medical, nurse, dentist consultations, pre- and postnatal controls, health check-ups for children, immunizations, and related health activities.
64(b)); (e) development of mechanisms for community participation; and (f) human resources
development, including pre-service and on-the-job training. SILAIS are currently being staffed with
personnel transferred from both the regional and area levels, and are expected to have a staff of six
people: Director, Health Administrator, Nurse, Epidemiologist, Statistician, and Financial
Administrator. However, it is likely that this administrative level will grow as SILAIS’
responsibilities increase. As of now, the budgetary authority for the SILAIS comprise the budget
share previously managed by the regions (para. 58). Recently (May 1992), the MOH eliminated the
regional offices to avoid bureaucratic duplications. In a country of Nicaragua’s size, the MOH
central office can assume a role of setting norms and establishing resource ceilings for the 19 SILAIS
without an intermediary level.

67. The following issues are still to be addressed by the MOH: (a) defining clear policy
guidelines and norms for the SILAIS regarding, inter alia, the model of services provision including
functions by type of facility by level, staffing norms, supervision norms and responsibilities, treatment
guidelines for the most common conditions, priority drugs lists by level and indicative budgets, and
definition of key monitoring and evaluation indicators for program implementation; (b) determining
the scope of actions to be preserved at the national level for reasons of economies of scale (e.g.,
training, procurement and distribution of drugs to the facilities level, and warehousing); (c)
strengthening SILAIS management capacity and transferring additional budget and personnel
authorities thereto, to allow for greater management control and autonomy at the local level; and (d)
reinforcing SILAIS’s command over hospitals to ensure that resources for PHC are not diverted
toward hospital care. Because hospitals are the largest and most important facility in each SILAIS,
and hospital directors may also have more status and respect than the newly appointed SILAIS
director (usually a younger physician with public health training), strict limits on hospitals’ share of
SILAIS resources should be established at the national level to protect primary care budget
allocations.

68. Health Sector Financing. Public health spending increased from 1.6% of GDP during the
1970s to 5% throughout the 1980s; in real per capita terms, however, spending peaked in the early
1980s and has intermittently declined to reach in 1991 a level slightly above that of 1970 (Table 4).
These expenditure levels show the GON’s commitment to the provision of health services. However,
widespread inefficiencies have led to a dramatic waste of resources, to supply disruptions of
pharmaceutical products and medical supplies, and to an overall deterioration of the quality of health
care. Health care financing faces four main problems which are closely linked: (a) misallocation of
financial resources; (b) inefficient management of resources; (c) disparities in access to health care;
and (d) excessive reliance on public funding.

(a) Misallocation of financial resources. In spite of significant per capita public
health spending given Nicaragua’s per capita GDP (US$17, of which US$5 is for drugs and
medical supplies), the following major issues in the allocation of MOH resources are
obstacles to implementing the GON’s medium-term development strategy in the health sector:

(i) Investment vs. recurrent expenditures. The rate of investment decreased
from 5% of MOH budget in the early 1990s to less than 1% in 1990 and 1991,
with a consequent deterioration of health infrastructure and equipment further
worsened by the MOH’s difficulties in meeting its recurrent maintenance costs.

(ii) Salaries vs. other recurrent expenditures. Trends show that salaries
increased from 32% of total expenditures in 1989 to 59% in 1991, whereas
expenditures in pharmaceuticals, medical supplies, and other critical inputs fell from 60% of total expenditures to 40% over the same period (Annex 8, p. 5).

(iii) Preventive vs. curative care expenditures. Despite the country's epidemiological profile, which calls for strong interventions at the primary level, PHC remains underfunded. Although MOH has increased the PHC budget share from 14% in 1983 to about 25% at present, approximately US$4.5 per capita (Annex 8, p. 6), most resources are allocated for more costly, yet less effective, curative services provided by hospitals. Hospital spending averaged about 45% of the budget throughout the 1980s and then, contrary to declared priorities, increased over the past two years to reach 56% of the budget in 1992. Apparently these shifts have been made through the reduction of general administrative expenditures, which fell from almost 32% of the budget to 13% in 1992 (Annex 8, p. 6).

(iv) Rural vs. urban expenditures. The allocation of resources favors urban areas over poorer rural areas: for example, Managua (Region III) receives 37% of the budget while serving 27% of the total population (Annex 8, p. 7). This also related to the overemphasis on curative facilities and driven by the location of hospitals and larger health facilities in or near urban areas.

(b) Inefficient management of resources. The resources that are available are poorly used, and thus there is considerable scope for productivity improvement through cost-reduction and rationalization practices. Some of these inefficiencies are the direct consequences of misallocations, i.e., the widespread use of higher-level health care facilities by patients who could be treated at the lower levels. Others are the result of inadequate organization and procedures, i.e., the procurement and distribution system which is unable to ensure availability of key pharmaceutical products, and staffing patterns which are inconsistent with sectoral priorities, particularly regarding PHC.

Special emphasis must be put on the inefficient management of foreign aid by the MOH. Foreign aid (which is not included in the national budget) made significant contributions to health care in Nicaragua, financing infrastructure, equipment, drugs and medical supplies, as well as operating costs. The share of foreign aid in total public sector spending increased during the early 1980s to 20% per year, was negligible in the second half of the 1980s, and has increased again starting in 1990 (Annex 8, p. 8). It is estimated that foreign assistance contributed over US$28 million in 1991, raising public health spending by 39% (to US$25 per capita). Thirty percent of donors assistance is directed toward financing investments (mostly hospital rehabilitation and equipment) and the remainder finances recurrent expenditures (notably increasing by 40% the MOH drugs bill, or US$7.6 million in 1991).

The basic problem which undermines the effectiveness of foreign assistance lies in the lack of coordination between donors, MOH, and MOF, evidenced by: (a) inadequate consultation with MOH on allocating resources in accordance with GON priorities and with MOF on the availability of counterpart funds as required by many donors, the lack of which in many situations stops the disbursement of committed aid (as reflected in the low disbursement profile of a large number of projects); (b) the mismatch between the

42/ Part of the donations are channeled directly to the public by NGOs, and thus are not included in MOH figures. No estimates of the scope of this aid are available.
pharmaceuticals donated and the real therapeutic needs of the country, with some products not even registered in the National Formulary (Formulario Nacional de Medicamentos, 1988); and (c) the lack of an assessment on the incremental recurrent costs of proposed projects. An analysis of 1991 donor-supported projects in the sector indicates that US$1 in new investments is generating about US$0.25 in additional recurrent expenditures for the MOH.\textsuperscript{43} In the near future, it is likely that the role of external financing will decrease, at least in the financing of pharmaceuticals, given the reluctance of donors to fund long-term recurrent costs.

(c) \textbf{Disparities in access to health care.} The GON has expressed its concern for the poor and sees free access to health care as one means to redress social inequity. In practice, disparities between urban/rural and curative/preventive expenditures increase inequity, as a significant share of the budget is allocated to hospitals, which often provide services to non-poor groups which already have easier access to health care. Moreover, supply disruptions of drugs and medical supplies to the patient level have fostered the development of implicit fees which further handicap the poor. Under increasing financial constraints, government spending should be targeted to health services that yield a large public good component (i.e., cost-effective programs such as control of communicable diseases and immunizations). If spending is concentrated on these services, the poor will automatically benefit even if they are not specifically targeted. In addition, a number of services in the urban areas that benefit the non-poor could be financed privately, with fees to be covered by private insurance.

(d) \textbf{Excessive reliance on public funding.} The national budget bears the brunt of health care financing, creating a dangerous dependency on general revenues. Although the GON is committed to significant resource allocations for the health sector, a slow recovery of economic activity coupled with high population growth may seriously impair MOH’s ability to maintain the current level of expenditures and will require looking into alternative sources of health financing such as selective cost-recovery and increased private sector and community participation. The implementation of such policies is necessary if services of an acceptable quality are to be provided by the public sector and if MOH expenditures efforts are to be maintained on a sustainable basis.

F. \textbf{Education}

\textbf{General Trends}

69. Although the education system potentially reaches the majority of the school-age population, a low percentage of Nicaraguans complete primary school, and in the population as a whole, the average educational attainment is estimated at about four years. Over 20\% of the population ten years and older is illiterate. Today, most children enroll in school, but high dropout and repetition rates yield low effective educational progress.

70. **Primary Education.** Primary education is free and obligatory (for children aged 7-13) and is offered in over 4,000 primary schools, a significant number of which, however, need rehabilitation and lack potable water and latrines. Available data shows that there are on average 34 students per teacher at the primary level. Repetition and dropout rates are particularly high in the first two grades (45%), and nationally only 22% of entrants complete the sixth grade, with striking differences between urban and rural areas: 41% of urban children complete primary school, versus only 7% of rural children. It takes an average of 17.4 student-years to produce one primary school completer, 7 years longer than the average for Central America. Annex 9 provides some details about Nicaragua's education indicators.

71. As a result of a policy to expand free access to education, school enrollment increased from 80% in 1978 to universal enrollment by 1983. As shown in Table 9, the growth in rural areas was particularly impressive, showing an 18% annual growth over the 1978-1983 period. Enrollment began to decline in 1984 due to the war and the deteriorating economy, but still compares favorably with other Central American countries. Nicaragua has achieved gender equity in entrance to the school system (Annex 9, p. 1). However, significant disparities between urban and rural areas are found when comparing net enrollments (students aged 7-13), which reach 79% in urban areas and 69% in rural areas.

72. **Secondary Education.** In 1988, there were over 300 secondary schools with a total enrollment of 174,000 students, 35% of the primary education enrollment, a significant increase from the 28% in 1978, including twice as many females as males. Twenty percent followed a vocational educational track (teacher training, agriculture, industry or commercial), the rest a general curriculum. All indications are that the quality of secondary education is poor. Only 20% of the teachers at this level are qualified. The curriculum remains largely academic and university preparatory. Secondary schools suffer from a serious shortage of textbooks and instructional materials, and there is no national standard evaluation of student learning at the secondary cycle.

73. **Higher Education.** University enrollment in 1990 was estimated at 25,000, or about 15% of the students enrolled in secondary education. The higher education system includes four public universities, two private universities, and two post-secondary non-university technical schools, all of which are completely financed by the government. Students pay no tuition fees, regardless of their ability to pay. All indications are that inefficiency is high at the higher education level. Fifteen to twenty percent of each cohort graduate, the student:faculty ratio has fallen from 20 students per faculty in 1978 to only 14 students per faculty in 1990, and there is almost one administrator per professor. All indications are that the quality of higher education is poor. Facilities are in need of repair due to years of neglected maintenance, and there is a general lack of textbooks, laboratories,

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44/ A MOE study is underway to collect base data for the formulation of a primary education policy, results of which are expected in early 1993. Figures quoted were collected from a variety of sources and represent the best available data on education in Nicaragua.

45/ USAID, Nicaragua Primary Education Subsector Assessment, 1991, Table 9.
and equipment. Faculty teaching loads are low by international standards, and make extensive use of "student assistants" instead of faculty.

Overview of the Education Sector

74. The Ministry of Education (MOE) is responsible for administering basic education, upper-secondary academic track, and pre-service teacher training. The Instituto Nacional Tecnológico (INATEC) is responsible for technical and vocational education; and the Consejo Nacional de Universidades (CNU), an autonomous entity constituted of representatives from universities and agricultural schools, students, teachers, and workers, is responsible for setting policy for higher education, allocating the earmarked GON subsidy, and regulating the six universities and two post-secondary agricultural schools. The MOE is the country’s largest ministry and received about 18% of the central government’s 1991 budget. The MOE’s 30,000 employees (more than double the 1980 staff) account for about 43% of all public sector employees.

75. The formal educational system comprises: (a) a nine-year basic education cycle consisting of one optional year of preschool, six years of compulsory primary, and three years of lower-secondary; (b) two years of upper-secondary education offering academic and pre-service teacher training tracks; and (c) higher education for post-secondary graduates. In addition to the formal system, the MOE operates an adult basic education program with similar content in the evenings and on weekends for students 10 years of age and older who need to work.

76. During the 1980s, the education system doubled its network throughout the country to keep pace with accelerated increases in school enrollment (Annex 9, p. 2). Total enrollment in the formal educational system grew from 356,000 students in 1970 to about 900,000 in 1990, at an annual rate of 4.7 percent (Annex 9, p. 3). Preschool education registered the largest annual enrollment increase (9.6%), followed by secondary education (6.3%), higher education (6%), and primary education (4.1%). This impressive expansion was due to the use of several educational alternatives based on community support and volunteer teaching, particularly in primary and adult education.

77. In 1990, out of over 900,000 students to whom education services were provided — in over 4,000 schools, taught by about 24,000 teachers in approximately 14,000 classrooms — 80% were at the pre-primary and primary levels (Annex 9, p. 4). The main provider of basic education is the MOE, which is charged with the responsibility of providing services to about 75% of the school-age population. The MOE also subsidizes over 800 privately operated schools which serve approximately 8% of the school-age population. The private sector serves the remaining 5% (Annex 9, p. 5).

78. Starting in the 1980s, the MOE was structured to comprise a central office, nine regions, and 143 delegations at the municipal level. Planning, programming, and financial management have been substantially concentrated at the central level. Regional offices were mainly in charge of personnel administration, submission to the central level of operating expense accounts, and of providing—in conjunction with teacher training ("Normal") schools—upgrading courses for certified and uncertified teachers. Municipal delegations were in charge of operating and supervising the primary and secondary schools under their jurisdiction and of managing the financial, physical, and

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46/ Before the establishment of INATEC in 1991 as an autonomous agency, secondary technical education was provided by the MOE and vocational non-formal education for public and private sector workers by the Sistema Nacional de Capacitación (SINACAP), an agency accountable to the Ministry of Labor. Annex 9 describes the main features of the technical and vocational education system.

47/ Before the establishment of INATEC, the MOE also provided a track for middle-level technicians in agricultural, industrial, and commercial productive activities.
human resources assigned by the regional level. Appointment of teachers has been the responsibility of municipal delegates, but intervention and veto powers remained with the regional and central levels. In a major decentralization effort, the MOE is currently reorganizing the Ministry to allow for greater management control and autonomy at the municipal level and has eliminated the regional offices (para. 82(c)).

**Main Issues in the Education Sector**

79. During the last decade, Nicaragua made major efforts to improve its population’s educational attainment. Although most children enroll in school, the gains have not been as great as expected because of: first, lack of a coherent strategic framework establishing clear priorities. Second, low internal efficiency and poor quality of services. Third, inadequate management of resources by the MOE arising from low institutional capacity. And Fourth, inefficient allocation of sectoral resources. These problems have been compounded by the high rate of population growth, which has made it difficult for the school system to keep up with increased demand.

80. **Lack of National Consensus for Sector Policy and Strategies.** A major cause of poor sector performance is the lack of a coherent strategic framework at the national level to adequately reflect the country’s educational needs and resource constraints. While the MOE is committed to emphasize primary education, it has been unable to raise its budgetary allocation by shifting funds from higher education (para. 87) because: (i) the MOE budget is already hampered by the overall fiscal constraints; and (ii) opposition to reduce government allocation for higher education from the Assembly (para. 87).

81. **Low Internal Efficiency and Quality.** Educational efficiency is extremely low as measured by high repetition and dropout and by low completion rates (paras. 69-70). Because primary education is the only formal education that most Nicaraguan children can hope to ever receive, inefficiencies at this level limit Nicaraguans to low levels of achievement in the future, particularly in rural areas. Major factors in the education system responsible for these outcomes include:

(a) **Incomplete and multigrade schools.** A significant number (32%) of primary schools offer three grades or less, with rural areas affected the most: 35% of rural schools fall in this category as opposed to 13% of urban schools (Annex 9, p. 6). Nineteen percent of rural children attend multigrade classes, where the inherent difficulty of teaching children of heterogeneous ages and backgrounds is compounded by the lack of skills among a largely unaccredited and undertrained teaching force (mostly *empíricos*, see (c) below) and by the shortage of learning and teaching materials.

(b) **Inadequate orientation of pre-school programs.** Although enrollments have shown encouraging growth, with a gross enrollment close to 17% in 1990—a significant increase from the 3% of 1978—this expansion did not translate into improved efficiency in the first years of primary schooling. Major reasons for this outcome include: (i) inadequate targeting with low coverage in rural areas where children are at a greater educational disadvantage (80% of preschool enrollment is concentrated in urban areas); (ii) lack of educational content, with preschool programs functioning more as day-care centers; and (iii) lack of trained teachers and teaching materials.

(c) **Low quality of the teaching-learning process.** The explosive rise in school enrollments far exceeded the increase in the annual supply of qualified teachers (about 400
This situation was largely generated by a wage structure that did not provide incentives for qualified teachers. The salary differences between accredited and non-accredited teachers are insignificant, and the Teachers Statute allows unaccredited teachers who take "professionalization" courses to reach top salary levels without any relationship to actual improvement in teaching performance. To cope with this shortage, the MOE employed large numbers of unaccredited teachers, the encriptos, which at present constitute 55% and 23% of the teaching force at the primary level in rural and urban areas respectively. Their basic pedagogical skills and experience are inadequate to foster high levels of student achievement. About 1,500 unaccredited teachers per year receive "accreditation" programs provided by the MOE in 13 Normal schools, taking an average of 5 years for completion. However, these programs lack minimum quality standards as teacher schools employ outdated methodologies, have no curriculum guides, insufficient teaching materials, and poorly trained staff.

The curriculum also contributes to the high failure rates and to the low quality of primary schooling. Implemented in the 1980s, the curriculum emphasizes memorization and exposure to information rather than development of basic skills. The lack of nationally administered achievement tests prevents objective comparisons among different teaching methods, and among performances of teachers and students. This lack of achievement tests inhibits improvement of the teaching-learning process and contributes in no small part to the school system's low efficiency.

(d) Insufficient teaching-learning materials. The lack of textbooks and other teaching and learning materials seriously damages the quality of the learning experience. A grant of US$12 million from USAID for new textbooks replacing those used in the past has satisfied this need for 2 to 3 years, providing basic textbooks for all primary and secondary level school children, and a massive program to train teachers to use the new textbooks has been implemented. The MOE still has to develop a textbook policy that is consistent with competence objectives for each level, including content and design, printing, distribution, reposition needs and costs. Other basic materials currently lacking in schools include blackboards, maps, chalk, notebooks, and pencils.

(e) Poor condition of facilities and equipment. The accelerated construction of new schools during the early 1980s to match the increase in enrollments provided fairly good geographical coverage. However, during the economic crisis and civil war and especially the second half of the 1980s, the government did not invest in the rehabilitation of...
the physical plant, let alone new construction. This deterioration in facilities and equipment adversely affects the quality and efficiency of education. At present no precise information is available on the school network's rehabilitation needs. Preliminary estimates indicate that about 10% of the schools need substitution, 30% need rehabilitation, and 60% need preventive maintenance, at a cost of approximately US$33 million. An additional 400,000 student desks and chairs, and an undetermined amount of teacher desks, blackboards, and bookshelves are also needed. An inventory is being carried out with support from the Japanese Grant Fund (managed by IDA) to determine exact repair, rehabilitation, and furniture needs of the primary school network. This rehabilitation will have to take into consideration: (i) the completion of incomplete schools; (ii) the provision of water and latrines to a large number of schools, particularly in rural areas; (iii) the involvement of local communities in school maintenance; and (iv) the legal status of the facilities.

82. Inadequate Management. The education system suffers not only from a lack of resources, but also from poor staffing patterns, the lack of a reliable MIS system for management purposes, and organizational and technical weakness that hamper the development of standard procedures and the capacity for long-term planning.

(a) Staffing patterns. In addition to, and partly as a result of, the serious shortage of qualified teachers, teacher distribution is a major issue. Because there are no consistent personnel deployment strategies which might include adequate incentives for teaching in rural areas or rotational mechanisms, less qualified teachers are left to teach in the lower grades and rural areas, where higher skills and experience are needed (paras. 81(a),(c)).53/ Student:teacher ratios provide another indication of inefficient use of human resources at the MOE. At the national level, student:teacher ratios have declined from 37:1 in 1978 to 34:1 in 1990, without any discernible impact on the school system's internal efficiency. Latest educational research in developing countries shows that increasing class size to as high as 45 students per teacher does not negatively affect student achievement. At the current ratio, the MOE will require 6,000 new primary school teachers to care for the 210,000 additional children who will need primary schooling during this decade (para. 19). Increasing the student:teacher ratio to 45:1, a common average in Latin America, would decrease the need for additional teachers by 1,400. While the central offices of the MOE are not excessively large (employing 7.7% of the Ministry's staffing), there was an excess of non-service delivery personnel, particularly in the support and administrative areas at the regional levels. In 1991, the ratio of teachers to administrators was a low 7:1, well below the average of 20:1 in better managed systems. This ratio has improved in the last months to 12:1, as a result of the elimination of the regional offices. A large number of staff holding administrative positions at these offices were either transferred to teaching positions (if qualified) or terminated through the Occupational Conversion Program. There is a critical shortage of technical specialists in key areas such as educational planning and management.

(b) MIS. The information base on which planning is built is outdated and unreliable. The MOE does not have an integrated MIS able to provide urgently needed data on students, teachers, budget, supplies and materials, facilities, or planning. Most regional and municipal delegations have been operating without automated capabilities and have received no real support from the central level. The main causes of this situation are: (i) lack of a

53/ The current incentive program rewards a salary bonus (zonaje) to those teachers working away from their hometowns. This bonus is both insufficient to motivate qualified, accredited teachers to go to remote areas and inadequate because it does not reward actual hardship of teaching in remote areas.
strategy and objectives for the production of information in the MOE; (ii) past efforts in data
collection were not carried out within an MIS framework but on *ad hoc* basis in response to
specific needs; (iii) lack of systematic use of the data gathered at the municipal level for
management purposes, both by the regional and central levels (the only two reports
produced by the MOE are an annual initial enrollment, usually released one year late, and a
six-year summary bulletin, usually released 3 or 4 years late); and (iv) insufficient number
of qualified technical personnel.

(c) **Structural and organizational weaknesses.** Main weaknesses of the
organizational setup of the MOE during the 1980s were: (i) lack of distinctive functions for
the regional and municipal levels. While the regional level mostly replicated the
administrative tasks of the central level and carried out almost no pedagogical tasks, many
responsibilities were transferred to the municipal level without establishing appropriate
coordination between levels; (ii) inappropriate support for implementation of educational
strategies to the municipal level to deal with both administrative and pedagogical matters;
and (iii) insufficient provision of resources to the municipal level to carry out its functions
appropriately. The reorganization of the current structure, which is being supported
financially and technically by USAID, attempts to address these issues, and entails the
elimination of the regional level, to avoid bureaucratic duplications, along with the
strengthening of the municipal level.

83. **Education Sector Financing.** During the 1980s Nicaragua made major efforts to increase
the provision of education services. Public education spending increased from 2.6% of GDP in 1978
to over 5% of GDP in the early 1980s, started to decline in 1985 to reach 2.7% of GDP in 1989, and
has recovered to 4.2% in 1991 (Table 4). Education sector financing faces four main issues: (a)
inadequate intra-sectoral allocation of resources, with practically all resources devoted to salaries; (b)
inefficient use of scarce sectoral resources, with significant waste; (c) inequitable allocation of
resources, with primary education significantly underfunded; and (d) unbalanced financing of
education services, with excessive reliance on Government funding.

84. **Inadequate Intra-Sectoral Allocation of Resources.** The resources that are available for
public education are severely misallocated, which represents a major impediment to the
implementation of GON education priorities. As public sector resources started declining beginning
in the mid-1980s, education spending declined even more sharply to be, in 1991, 30% lower than the
1970 level in per capita terms (Table 4). In response to such developments, the Government
protected employment and wages rather than the provision of minimum quality services. As a result,
the distribution of education resources became increasingly unbalanced, leaving insignificant resources
for investment in facilities and school equipment. Capital expenditures fell from almost 9% of the
budget in 1984 to 0.1% in 1992, resulting in a general deterioration of facilities and basic equipment.
Recurrent expenditures, which increased their share to absorb practically the entire budget, also suffer
from major imbalances with the share of salaries increasing from 64% in 1989 to 77% in 1991 and to
86% in 1992 (Annex 9, p. 7)\(^{54}\), leaving insufficient resources for non-salary operating
inputs—including the supply and replacement of materials, facilities and school equipment
:presence, and school supervision. At present, the MOE has only US$0.9 per student per year for
all non-salary inputs reaching primary schools. The sharp decline in both investment and critical non-
salary inputs have contributed to the serious deterioration in the quality of educational services.

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\(^{54}\) A major cause of the increase in the last two years is the agreement between the MOE and the teachers’ union, which
provides teachers with a wide range of health and social benefits such as transportation subsidies, eyeglasses and specialized
medical care, and school supplies for their children.
Available data, although scant, indicate that there is also significant misallocation of the resources managed by higher education institutions. The share of salaries (including workers' benefits) is about 90%. Expenditures on non-personnel recurrent expenditures are a low 6% (1991) compared to about 15% in other countries of Latin America and 35% in European public universities.

85. **Inefficient Use of Sectoral Resources.** The resources that are available for government education programs are poorly used. Some of these inefficiencies are closely linked to the above mentioned misallocations. Others are the result of inadequate strategic planning and poor management capacity. One area that reflects MOE's limited planning capacity is the inadequate distribution of teachers, particularly between rural and urban areas. While the shortage of qualified teachers was eased by hiring unaccredited teachers (*empfricos*) (para. 81(c)), the MOE did not articulate a wage policy to provide incentives for qualified teachers or develop personnel deployment policies, including incentives for teaching in poor rural areas or rotational mechanisms, thereby contributing to perpetuate the problem. Another area that reflects poor management of resources at the MOE is that of teacher training (paras. 81(c),(d)), which absorbs 2.4% of the 1992 budget. The MOE program for the professionalization of unqualified teachers is expensive because it is provided in 13 Normal schools, taking an average of 5 years for a teacher to complete. As a result, the MOE is spending about US$170 per year per teacher in professionalization courses, or almost 4 times per student spending at the primary level. Recently, the MOE has started implementing on-the-job and/or "distance education" training modalities, which generally are less expensive and faster. Transportation subsidies for teachers and students, as well as abnormally high expenditures for water services, also reflect the inefficient use of resources by the MOE.

86. The limited capacity for strategic planning is also reflected in the implications for MOE's budget of the new *Ley de Carrera Docente* (footnote 49) because: (a) it allows retirement for teachers 55 years old and over who have taught for 25 years, or those who have taught for 30 years, regardless of age; (b) retired teachers (including those already retired) would receive 100% of their last basic salary. Since Social Security only covers payments starting at age 60 and for up to 70% of salary, MOE would have to cover the difference. It is estimated that between 500 and 1,200 teachers already qualify for retirement under the dispositions of the new law; and (c) it would increase the demand for professionalization courses, since training is one of the criteria to climb the salary scale. It is estimated that the law would absorb at least US$1.85 million of the MOE budget per year, which represents 3.7% of its 1992 budget. Given the budgetary constraints faced by the GON in the short- and medium-term, it is likely that the MOE would have to divert these resources from services provision.

87. **Inequitable Allocation of Resources.** The distribution of public educational resources is inequitable. Taking into account the educational needs of the country, which call for a vigorous effort at the primary level, primary education remains underfunded, while higher education is overfunded. Although the MOE has increased the budget share of primary education from 30% in 1989 to 42% in 1992, largely through reductions in administrative expenditures, per-student spending is insufficient in absolute terms. Annual per student spending stands at less than US$46 in 1992, of which only US$0.9 per child per year goes to non-salary inputs reaching the schools, such as teaching and learning materials, school supplies, and supervision. Higher education spending, which increased throughout the 1980s from 14% in 1979 to 18% in 1989, has been further subsidized in the last two years to reach 29% in 1992, in contradiction with GON declared priorities. The increases since 1989 are a direct consequence of the *Ley de Autonomía de la Educación Superior* (1989), which removed higher education resources from the MOE budget, earmarking 6% of Government revenues for this...
level, and exempted higher education institutions from paying taxes and utilities. Because of an ambiguity in the language of the legislation, proponents of higher education have insisted on and received the 6% earmarking based on total Government revenues, including outside financing. In 1992, attempts by the GON to introduce legislation to restrict the 6% earmarking to apply strictly to local Government revenues were defeated in the Assembly. In practice this means that 2.7% of the nation's students are beneficiaries of almost one-third of public educational resources. Currently, Nicaraguan per student expenditures in higher education are 17 times those of primary, while in the rest of Latin America this ratio is only 10 times. Contrary to popular wisdom, free higher education does not benefit the poor the most. In Nicaragua, only 22% of all entrants complete primary school. Of the primary school completers, 35% enroll in secondary education. Of those who graduate from secondary school, 15% eventually enroll in higher education. Assuming that all secondary school students graduate, this means that out of 100 children who enter primary school, seven will go on to secondary education, and only one will eventually qualify for university entrance. Given that extremely few poor students ever complete primary education, the probability for any from this group to enter college is practically nil.

88. Unbalanced Financing of Education Services. Almost complete reliance on Government financing for education is a major issue to be addressed by the GON. The GON has to confront the fact that it cannot continue to bear the full burden of financing education services. It cannot afford it; not all the population is poor, and not all levels of education should continue to be fully subsidized. The situation is further complicated by overall budgetary constraints and the fact that the education sector's share of the government budget is already large (Table 3). At the same time, primary education services need to be strengthened over the coming years to reduce repetition and dropout and improve the quality of the only schooling that most Nicaraguans will ever receive. Recognizing the above and due to the fact that it has no authority over the budgetary allocations for higher education, the MOE has recently started to institute several policies to diversify its financing sources by: (a) establishing mandatory fees at the secondary level (US$18 per year, or 4.5% of per capita GDP) and requesting voluntary contributions at the primary level (US$9 per year, or 2.2% of per capita GDP); and (b) mobilizing external assistance. In addition, the MOE is undertaking initial steps to reduce private school subsidies at the secondary level and target those at the primary level to the poorest groups. A pilot program has been initiated in six municipalities wherein: (a) subsidies for private schools charging more than US$6 equivalent a month were eliminated; and (b) subsidies for eligible schools are transferred directly to the schools, thus unburdening the MOE from having to manage teachers' salaries through its payroll.

89. While the establishment of school fees generated considerable debate, it is reported that most secondary school students and about 60% of the primary school students are actually paying them, which is a clear indication of families' willingness to pay for education services. The MOE has still to define an appropriate policy for the utilization of both mandatory and voluntary fees so that they contribute to ease its budgetary constraints and improve the quality of school services. For the time being, these fees are being fully devoted to increase teacher salaries (bono del maestro). While this contributes to improve teachers' attitude, the MOE is still left with lack of funding for the provision of the critical non-salary inputs that enhance teachers' productivity and result in improved school efficiency and quality such as teaching and learning materials, school supervision, and school maintenance.

55/ The universities' budget is allocated among institutions by the CNU (para. 74) according to criteria established in the law, including number of students and operating costs. In practice, these standards are loosely applied. In addition, the CNU is not required to submit budgetary executions and is only ex-post accountable to the Contraloría General de la Nación.
90. Foreign assistance has made significant contributions to the education sector in Nicaragua, financing school construction, equipment, textbooks, school supplies, and teachers. The share of foreign aid in public education spending increased in the early 1980s to about 13% per year, fell drastically afterwards, and increased again starting in 1990 (Annex 9, p. 8). In 1991, foreign assistance was US$7.7 million, which raised education spending by 9%, but is still insufficient to offset the decline in public financing. Donors assistance is financing infrastructure rehabilitation, furniture and equipment, and all textbook requirements at the primary and secondary levels. While the MOE is attempting to ensure that external aid is targeted to GON sectoral priorities, it still needs to: (a) develop adequate mechanisms and procedures for the management of aid, especially procurement, disbursements, and auditing; (b) standardize procedures for counterpart funding through the MOF; and (c) mobilize additional resources, particularly for pre-primary education.

G. Institutional Impediments in the Social Sector

91. After a decade of accelerated expansion, the GON is currently finding it very difficult to direct and reorient its social sector institutions. Coordination and monitoring of social sector programs is weak, as are the links with broader social sector policy and overall macroeconomic policies. Sectoral institutions are plagued by lack of institutional capacity, inefficient management of resources, and inadequate coordination of donors assistance.

Lack of a Coherent National Policy for the Social Sector

92. The problems encountered in each of the areas analyzed in this report (population, poverty, malnutrition, water and sanitation, health and education) reflect major limitations in policy formulation and implementation at the national level. Fragmented initiatives without adequate consideration of larger questions of institutional capacity, strategic objectives, and resource constraints have led to the current disorganized state of national policy and management practice.

Budget Policy and Financial Management

93. One of the areas where reform is most needed is in the budgeting and management of ministerial finances. Budget policy and financial management are limited because: (a) there is a lack of transparency in the rules and guidelines for allocation of funds from the MOF to the line ministries; (b) budget negotiations occur without consideration of sectoral strategies in accordance to a priority list; (c) budgets are not broken down in ways which would permit meaningful analysis of resource allocation by programs; and (d) foreign assistance, a large portion of available resources, is not reflected in ministerial budgets, and does not go through a rigorous study for allocation of resources. Not having reliable and systematic information, economic analysis apparatus, technically competent staff, and appropriate budgetary procedures, the ministries are not able to conduct the monitoring and analysis functions that are necessary to ensure that public spending is actually consistent with GON priorities.

Coordination of Donors Assistance

94. Since 1990, external funds have escalated to reach about 39% of total public funding in health and 9% in education in 1991. These resources are financing all investments and a large

56/ The MOE is starting the implementation of a USAID financed project to improve student flows and the quality of primary education, and strengthen its institutional capacity in a decentralized manner (US$25 million). It is also preparing a project with UNICEF and WFP to improve the quality and targeting of pre-primary education services. To rehabilitate and upgrade school facilities and equipment, the MOE is working closely with FISE (para. 114(c)).
portion of recurrent expenditures (paras. 68(b) and 84). The effectiveness of foreign assistance is currently hampered by the low absorptive capacity of Nicaragua’s public sector institutions. First, sectoral priorities have not been clearly spelled out in operational strategies and there are no mechanisms in place to ensure that resources are directed toward priority programs, especially in the health sector. Second, the control and coordination of foreign aid is inadequate since a large number of agreements bypass the Ministry of External Cooperation (MEC). Third, no mechanisms are in place to ensure the availability of counterpart funds as required by most donations, the lack of which in many situations impedes the flow of aid. Finally, no assessment is made on the recurrent cost implications of the proposed investments, which is particularly important in health and education, since these are sectors highly intensive in labor and operating inputs.

III. GOVERNMENT PROGRAMS AND STRATEGIES FOR THE SOCIAL SECTOR

95. The GON has started to develop the main elements of a social sector strategy, but has not yet prepared a comprehensive document including the priorities and strategies of major ministries. The GON’s fundamental goals for poverty alleviation are to decrease child and maternal mortality, develop the human capabilities of the Nicaraguan people, and enhance income earning opportunities for the poor. The GON attempts to implement a two-pronged phased strategy in the social sectors. In the short term, priority is being given to the execution of safety net programs, most notably the Social Investment Fund (FISE), targeted to the most vulnerable groups and intended to prevent a deterioration in the already precarious living standards of the poorest groups during the adjustment period (paras. 29 and 98). FISE and other compensatory programs, such as the National Reconciliation and Rehabilitation Program (PRRN) (paras. 30 and 100) and a small number of well-targeted nutrition programs, are to provide a transitional instrument for responding rapidly to a critical poverty situation until the line ministries have been strengthened and project activities may be reintegrated into their normal operations. More generally, to protect social sector programs during the adjustment period, it is the GON’s intention to maintain the share of social expenditures in the budget roughly constant in real terms, at one-third of public spending or about 16% of GDP, during the 1993-1995 period.

96. The GON recognizes that safety net programs, while crucial in the short term, are not sufficient to resolve Nicaragua’s chronic poverty. In addition, the GON recognizes that it needs to develop and implement a comprehensive social sector policy and reform program which would: (i) improve policy formulation, sector management, and program coordination in the social sectors; (ii) increase the efficiency and equity of social sector programs by targeting domestic and external resources to primary health care, primary education, and water supply and sanitation (particularly in rural areas); and (iii) help strengthen the institutional capacity of line ministries. The development of the social sector reform program will be undertaken in two phases. First, in the context of an IDA Credit for the FISE (Cr. 2434-NI, signed on January 21, 1993), the GON has presented to the Bank a social sector policy letter, dated October 8, 1992, focusing on short- and medium-term strategy and actions (Annex 12). Second, using this letter as a point of departure, the GON will subsequently formulate a comprehensive policy and strategy document detailing priority programs and measures to be pursued over the short and medium term, including an implementation plan. A draft of this document will be presented to the Bank by May 31, 1993 and will be one of the monitoring indicators of the FISE project recently approved by the Board. Compliance with agreed upon priorities and actions will be reviewed during the mid-term review of the FISE project (February 1994). A brief description of the GON safety net programs and priorities in the health and education sectors is presented below.
A. Safety Net Programs

97. Alleviating extreme poverty has been established as a major objective for the 1992-1995 period. The Government attaches high priority to safety net programs for the short-term, such as: targeted nutrition assistance; reconstruction of economic and social infrastructure; improved access to water and sanitation (particularly in rural areas); employment creation; and supporting groups directly affected by the war. The action plans for the FISE, nutrition assistance, and PRRN are described below.

FISE Action Plan 1992-95

98. The FISE Action Plan for the 1992-95 period has been designed as an instrument to complement the policies of the social sector ministries (Annex 3). FISE intends to finance the following subproject mix: (a) social infrastructure including, inter alia: (i) rehabilitation, upgrading, substitution, and equipment of education and health facilities, with priority on pre-primary and primary education centers and health centers and posts, (ii) installation of water and sanitation systems for marginal urban and rural areas currently lacking services, and (iii) construction or rehabilitation of other public service facilities used for the delivery of social programs; (b) economic infrastructure including: (i) improvement of rural roads, (ii) establishment or renovation of public facilities including wholesale and retail markets, slaughterhouses, silos and warehouses, (iii) building of bridges, drainage, ducts, retention walls, irrigation systems, and (iv) setup of environmental improvement subprojects such as erosion control and reforestation; (c) basic social services subprojects, targeted toward women and children and executed by NGOs, communities, or private agencies, including: (i) provision of nutrition and health services through support for day-care centers, health staff training, maintenance programs for the cold chain, and community health programs such as vector control, environmental and health education; and (ii) provision of education services through primary and pre-primary programs, educational materials, school libraries and furniture, and teacher training; and (d) training and development of community-based organizations and patronatos (community committees) for maintenance of health and education facilities.

Nutrition Assistance Programs

99. As a first step, the GON recently started to promote institutional coordination among line ministries and agencies to expand nutrition activities targeting the most vulnerable groups (children, pregnant and lactating women) in the short-term. The government is contemplating support for the following interventions: (a) strengthening PHC and integrating nutrition interventions in MOH programs, especially the promotion of breast-feeding and weaning practices; (b) increasing coverage of the Supplementary Feeding Program, with WFP support; (c) increasing the coverage of integrated day-care centers for children of working mothers in poor areas; and (d) re-establishing the Glass of Milk Program for primary school children targeted to the poorest areas, with EEC support.

National Reconciliation and Rehabilitation Program (PRRN)

100. The end of the civil war has left many Nicaraguans uprooted, separated from their previous social and productive roles. As part of the national healing process, it is essential for the GON to relocate and help reintegrate these populations into civilian society. To solve problems of overlap and lack of coordination among programs for war-affected populations, the GON created the PRRN in 1992 with the main objective of supporting vulnerable population groups in regions affected by the war. The PRRN is administered by the Ministry of the Presidency (para. 30).
B. Improving Delivery of Basic Social Services

101. The GON is conscious that improved basic health and education are essential for the development of human capital, the poor's only resource to grow out of their chronic status. To address poverty in the longer term, the GON will be focusing on improving the delivery of basic social services, assigning the highest priority to PHC and primary education. The GON has recognized the need to implement major policy reforms and institutional strengthening measures to improve efficiency of resource use and target expenditures more directly to the poor. The main Government priorities for the health and education sectors for the period 1992-1995 are presented below.

The Health Sector 1992-95 Action Plan

102. The MOH’s strategy centers on three priorities:

(a) **Strengthening PHC and preventive health care.** MOH’s efforts to improve maternal and child health would place major emphasis on preventive programs (immunizations, oral rehydration therapy, control of acute respiratory infections, birth spacing, breast-feeding, growth monitoring, and pre- and postnatal care), through: (i) safe motherhood initiatives to assist in the reduction of maternal and perinatal mortality; (ii) better integrating PHC programs; (iii) improve the referral system, including the implementation of a complete rehabilitation investment program based on the survey of PHC infrastructures network underway (para. 64(d)); and (iv) strengthening community participation and the promotion of health and nutrition through Information, Education and Communication (IEC) programs;

(b) **Improving management and efficiency.** Central to efforts of institutional strengthening and efficiency improvements is the MOH’s establishment of SILAIS, which have replaced the regional and areas structure. Planned actions include: (i) controlling pharmaceuticals and medical supplies by reviewing alternatives to improve the procurement, inventory control, distribution, and use of drugs by both physicians and patients; (ii) reorganizing staffing patterns through a census of personnel to develop appropriate staffing norms in line with local resources and needs, which will form the basis for developing a rational personnel system; (iii) developing management training and unified information systems at the SILAIS and local levels; (iv) developing management training and integrated health, financing, and MIS systems at the hospital level; (v) strengthening planning, norm-setting, and monitoring capability at the central level; and (vi) developing a decentralized supervision system.

(c) **Addressing financial issues.** To respond to the need to redefine financing arrangements to ensure that both budgetary funds and foreign assistance are targeted to priority programs, and that the GON can sustain its level of commitment of local funds, GON strategies include: (i) increasing the budgetary share of PHC by 2% per annum within the overall health sector budget envelope for the next four years, (ii) improving MOH’s capacity for budgeting and financial managements; and (iii) mobilizing additional financing and private sector participation and exploring cost-recovery mechanisms for selected drugs and services.
The Education Sector 1992-95 Action Plan

103. The MOE’s strategy centers on three priorities:

(a) **Improving internal efficiency and quality of primary education.** Internal efficiency would be improved by: (i) readjusting the content and targeting of existing pre-school programs; (ii) providing incentives for the best teachers to teach in first and second grades, keeping the same teacher for the first two grades, and automatically promoting students from first to second grade; and (iii) reducing incomplete schools wherever possible, while improving the quality of multigrade teaching (para. 119(b)). Improving the quality of primary education would be achieved by: (i) reforming teacher training programs and evaluation to improve teaching practices, assigning the highest priority to the empiricos and rural areas and developing a pre-service teaching training policy to increase the supply of qualified teachers; (ii) improving the curriculum to promote more active learning and focus the first two years of schooling on reading, writing, and basic mathematics; (iii) supplying textbooks and learning materials; and (iv) rehabilitating primary schools and ensuring.

(b) **Strengthening institutional capacity and efficiency** at the MOE to support the above agenda by: (i) developing an MIS to track student flows, physical inventory, personnel performance, and student achievement; (ii) further decentralizing school management; (iii) strengthening school supervision; (iv) developing national standards, including testing and evaluation programs; (v) reviewing the teachers’ incentive system to ensure that trained teachers remain in the school system by evaluating the existing legislation on retirement, wages and promotion (*Ley de Carrera Docente*); (vi) exploring new incentive schemes such as tying salary increases to merit certification through exams and performance reviews; and (vii) increasing student:teacher ratios where feasible.

(c) **Improving sectoral allocation of resources.** The MOE has already taken some decisive steps in this direction by: (i) decreasing administrative and support staff at the central and regional level (these staff were either reallocated to teaching positions, if so qualified, or dismissed); (ii) introducing voluntary fees at the primary level and compulsory fees at the secondary level, which have been used to raise teacher salaries; (iii) targeting education subsidies to the poorest groups; and (iv) promoting private sector participation in the provision of educational services. For the next four years, starting with the 1993 budget, the GON will increase the share of the domestic budget devoted to primary education by 3% per annum within the overall education budget envelope and improve MOE’s capacity for budgeting and financial management. The MOE will also mobilize additional foreign assistance for its priority programs, particularly for pre-primary education, and prepare measures to use a portion of the resources generated by user fees at the primary and secondary levels to fund critically needed inputs such as materials, supervision, and maintenance. Additional measures to be taken include: (i) continuing the promotion of the private provision of educational services at the secondary and higher education levels by deregulating licenses and fees; and (ii) in the long-term, restricting public subsidies to higher education, channeling the savings toward primary education.

C. Family Planning

104. In an effort to reduce the considerable social stresses introduced by a population growth rate of 3.4% per annum (para. 11), which is directly reflected in Nicaragua’s high rates of maternal and child mortality (paras. 53 and 54), the GON will introduce intensive family planning education programs and will improve the capacity of the health system, public and private, to respond to the
unmet demand for family planning services and maternal and child health care. Such actions will provide women with greater control over reproductive preferences and will reduce maternal and child mortality.

D. Analysis of the Government Program in the Social Sector

105. The GON policy letter presented to the Bank, dated October 8, 1992, represents an important first step in the evolution of the Government’s social sector strategy through its emphasis on targeted alleviation of poverty and reform in the line ministries to improve the provision of basic social services. The experience of a wide range of countries suggests that a government’s strategy for addressing social sector deficiencies needs this two-pronged approach. First, countries need to reform government policies, procedures, and delivery systems, which are essential to attack chronic poverty. This entails reform of social sector ministries, improving their institutional capacity at all levels of service delivery. Because of the sheer size of these ministries, and because careful attention must be given to an appropriate design of reform programs, this measures will take time. Ministries are not only permanent structures of government, but absorb practically all the resources for the social sector, which in Nicaragua amounts to over 30% of total central government spending. In the meantime, countries need to devise means to assist those who need immediate help the most, particularly if the country is undergoing a stabilization and adjustment process. The major task ahead for the GON is the preparation of a comprehensive social sector strategy document, including an implementation plan to effectively guide the shift towards targeted alleviation of poverty and reform in the line ministries.

106. Safety Net Programs. The GON has yet to confront the fact that not all issues can be addressed at once, nor does the country have the institutional capacity to be spread over a large number of programs. Priorities have to be established between safety net programs for the most vulnerable groups and those who need attention for security reasons. In addition, major efforts need to be made by the GON to link safety net programs and the longer-term reform of line ministries. For instance, it is unclear how safety net nutrition programs fit within the MOH’s strategies.

107. Improving Delivery of Basic Services. The overall strategies for the MOH and MOE respond to the most critical health and education needs of the country, and address the major institutional issues affecting sectoral capacity to improve services delivery. As a next step, major efforts need to be made by the GON so that the MOH and MOE translate their declared PHC and primary education priorities into effective and timely operational strategies, that is, phased action plans that include priorities and measures and their corresponding timetables. These operational strategies must be consistent with the budget constraints established by the GON’s overall macro-economic policies. The main instrument for the GON to ensure that its priorities are observed is the social expenditures budget. This budget must account for foreign assistance and offer a comprehensive and accurate overview of allocations, thus allowing for a systematic and balanced channeling of resources to meet strategic objectives while controlling inefficient and/or inequitable distributions.

108. A major element that has yet to be addressed in the reform programs for the line ministries, is securing more adequate, stable, and balanced revenues. Since the early 1980s, the country has relied almost exclusively on government revenues to finance all services provided by MOH and MOE, free of charge to users and regardless of their ability to pay. This is not only financially unsustainable, but has contributed to inefficient use and waste of public resources, with little incentive for both providers and recipients to adopt rational use and control costs. Alternative options need to be explored, including privatization of certain services, reduction in the menu of free services to be financed by the Government, and implementation of limited, income-sensitive cost-recovery mechanisms.
Family Planning. While the GON strategy for family planning (para. 104) acknowledges that high fertility rates are one of the factors contributing to widespread poverty and high child and maternal mortality, its approach should emphasize interventions through the health system to provide families with means to modify fertility levels.

Although the Government recognizes the severe institutional weaknesses in the social sector institutions and proposes to develop the GON's coordination and monitoring capacity, it has yet to develop the appropriate operational mechanisms to do so both for line ministries and safety net programs. The above remarks on the GON's proposed agenda underscore the need for coordination, and for a comprehensive and detailed national social sector strategy that would direct in a complementary manner the strategic and operational objectives of social sector programs.

IV. RECOMMENDATIONS

This chapter outlines the primary recommendations derived from the discussions in the preceding chapters, covering both new GON initiatives and established social sector programs. These are then summarized in recommended actions in policy matrix form presented in Annex 11 for each sector. Policy recommendations are based on improving the efficiency of basic social services delivery within resource constraints. A summary of key recommendations follows:

Recommendation 1: Develop a Social Sector Strategy and Coordination

To address fragmentation and lack of coherence in social sector policy, the Government should formulate, as soon as possible, a social strategy document clearly indicating priority programs and measures to be pursued over the short- and medium-term, including a defined and articulated implementation plan. The GON social sector policy letter presented to the Bank dated October 8, 1992 (Annex 12) represents an important first step in the evolution of its social sector strategy, through its emphasis on targeted poverty alleviation and reform in the line ministries to improve the provision of basic social services. Such a document would not only allow for strategic thinking about short- and medium-term objectives, operational targets (both programmatic and institutional), resources allocation, and implementation arrangements, but would also serve as a central instrument for coordination of donor efforts, which heretofore have been quite scattered. The need for donor coordination around a consistent Government strategy is particularly great given the social sector’s likely continued heavy reliance in the short- and medium-term on external assistance.

To develop its institutional capacity to effectively coordinate and monitor the implementation of its social sector strategy (Recommendation 1), the Government should: (a) organize a technical unit, at the highest level of Government, responsible for coordinating and monitoring the implementation of the social sector strategy; as such, this unit should not be charged with the implementation of any specific program, but of ensuring adequate coordination, monitoring and complementarity among interventions; (b) strengthen the capacity of the MOF to improve budgeting and financial management in the social sector institutions, including the allocation of Government resources and donor contributions; and (c) strengthen its institutional/policy analysis capability, by implementing an LSMS and other institution-based monitoring systems to evaluate the impact of key Government interventions in the social sector and their efficiency.
Recommendation 2: Develop a Sound Safety Net Program for the Short-Term

114. The GON has not clearly defined its strategy for poverty alleviation in the short-term (para. 31). Because of undefined priorities and blurred division of roles among programs, compounded by weak coordination of interventions, existing initiatives lack the capacity to effectively formulate and implement policies and programs. While donor support for poverty alleviation interventions has been generous over the last two years, in the absence of a Government strategy, some projects and support assistance, though well-intended, have been less than satisfactory. To avoid spreading institutional capacity thinly over many programs, the government should concentrate on a small number of programs/initiatives, which should:

(a) Be part of the wider social sector strategy, focusing on priority interventions;

(b) Target the most vulnerable groups (women and children); and

(c) Establish a proper division of roles between safety net programs by assessing the performance and efficiency of other poverty reduction interventions. Based on current experience, the Government should continue to support FISE, its most robust program to date. Special attention should be paid to: (i) not duplicate efforts between these programs, FISE, and line institutions as has happened in the past; (ii) develop transparent management, resource allocation, and accountability rules. The need for accountability rules is particularly important given the heavy reliance on external assistance for financing of these interventions; and (iii) abstain from programs that generate recurrent expenditures to be financed by the central Government. Such a selective approach would reinforce complementarity among interventions. A good example in this regard is seen in the definition of FISE’s work program for the 1992-1995 period, which would provide significant support for MOH and MOE priority programs aimed at improving delivery of PHC and primary education in the poorest areas of the country.

Recommendation 3: Reduce High Fertility Rates

115. The Government should formulate specific programs to promote family planning services by both the public health system and private agencies, as well as maternal and child health (para. 20). Providing women with greater control over reproductive preferences will reduce maternal and child mortality and expand the opportunities for women beyond domestic roles. Because reducing fertility also slows the population growth rate, it would buy time for development of the country’s economic potential, increase the speed with which per capita incomes can be raised, and curb the demand for health and education services. To improve the public health system’s capacity to respond to unmet demand for family planning services, an action program should be developed at the MOH, including: (a) expansion of comprehensive family planning services at health facilities; (b) improvement of PHC services to reduce infant and child mortality rates; (c) development of safe motherhood initiatives, particularly for high-risk pregnancies to reduce maternal, perinatal, and neonatal mortality; and (d) development of Information, Education and Communication (IEC) activities to create greater awareness of the benefits of child spacing and breast-feeding.

Recommendation 4: Improve Delivery of Basic Services—Priority to PHC and Primary Education

116. To improve health and education indicators, the Government should pursue strong PHC and primary education strategies at the MOH and MOE by:
117. **Improving PHC Services** (para. 64). As a first step, the MOH should translate its PHC priority into an operational strategy and prepare an action plan and corresponding timetable, that:

(a) Accentuates health promotion and disease prevention in the PHC services provided at MOH facilities, emphasizing the role of community volunteers into routine preventive care activities; main areas to be strengthened include water and sanitation, health education, pre- and post-natal care, immunizations, nutrition activities, and birth spacing;

(b) Improves organization of PHC services provision, particularly staffing patterns for health centers and posts according to Recommendation 5(a);

(c) Improves availability of drugs and materials at public health facilities according to Recommendation 5(b);

(d) Provides systematic supervision and develops an adequate MIS according to Recommendation 5(c); and

(e) Rehabilitates PHC facilities and equipment and develops maintenance systems involving greater community participation.

**Priority policy decisions** which should accompany this strategy are: (a) formal MOH commitment to increase the share of PHC in the domestically-financed health budget by two percentage points per annum for the next four years; and (b) MOH commitment to channel donor resources toward PHC.

118. In addition, to promote preventive health, the GON should address issues in water and sanitation (paras. 36-40) through the following actions: (a) define a sectoral strategy aimed at improving access to water and sanitation to greater numbers of the population and an adequate institutional framework. Such framework should specify the roles of INAA, MOH, municipalities and communities for the provision of water and sanitation in urban and rural areas; (b) emphasize the need of rural areas and further mobilize resources to that effect both at the donor and community levels; (c) encourage FISE to enhance its role in the provision of water and sanitation to poor communities, health posts, and primary schools; (d) maintain the activities of the current cholera campaign as a permanent preventive program; and (e) strengthen the national institutional capacity to prepare, finance, and implement small water and sanitation projects in rural areas, including the development of maintenance programs with community participation (INAA-DAR, FISE, NGOs).

119. **Improving Primary Education Services.** The MOE should prepare a sectoral policy and strategy document that would provide the overall framework at the national level aiming at improving the efficiency and quality of the school system (para. 80). Although efficiency needs improvement at all educational levels, the thrust of the strategy should be on primary education because it comprises the largest share of enrollment and is probably the only formal education the majority of the population can hope to receive. Because rural areas suffer from the lowest efficiency and quality, rural schools should receive priority over urban schools. To this end the MOE should focus on:

(a) Strengthening content, quality, and targeting of preschool programs (para. 81(b)) by: (i) targeting the programs to poor rural and urban 5 and 6 years old children; (ii) establishing a supervisory system to support service providers (teachers and paraprofessionals); (iii) providing teacher training; (iv) developing instructional materials; and (v) redirecting the nature of current preschool centers to a more educational and early stimulation orientation. In the longer-term, targeted expansion of preschool coverage should
be undertaken, mainly through the use of non-formal modalities and the involvement of parents and communities;

(b) Completing, as much as possible, incomplete, mostly rural, schools (para. 81(a)) by (i) adding more teachers and establishing double shifts; (ii) channeling the additional demand to nearby primary schools offering the full six-grade cycle, and (iii) including multigrade teaching techniques in pre-service teacher training programs;

(c) Providing teacher training, especially to unaccredited teachers (para. 81(c)). Such training should emphasize knowledge of the subjects to be taught and student skills to be developed; general and subject-specific methods for teaching and for evaluating student learning; and knowledge about students development. In addition, the MOE should continue developing alternative teacher training strategies. Consideration should be given to the following options: (i) evaluation and quick accreditation of experienced teachers; (ii) salary incentives tied to merit certification through examinations and teacher performance reviews; (iii) promotion of municipal level in-service training using local experienced teachers; (iv) revitalization of the curriculum of all training programs and development of upgraded training educational materials, including "distance education" alternatives; and (v) development of a long-term pre-service training program to address the shortage of qualified teachers and of an adequate corresponding incentive system;

(d) Developing a long-term (10-15 years) textbook and curriculum improvement policy. With respect to textbooks (para. 81(d)), the following features should be addressed for adequate policy development: (i) financing; (ii) conceptualization and manuscript development; (iii) publishing capacity; (iv) distribution and storage; and (v) supervision and technical advice. With respect to curriculum improvement (para. 81(c)), issues to be addressed include: (i) training of staff in charge of curriculum development; and (ii) conceptualization around modern language acquisition principles, and development of problem-solving and critical thinking skills; and

(e) Rehabilitating schools and developing maintenance systems with community participation (para. 81(e)). Rehabilitation should start where school conditions are the worst, or where the system is pressured by an influx of immigration. The MOE should consider expansion of its school network only when: (i) implemented in conjunction with other educational input: interventions geared to improve learning achievement in the classroom; and (ii) additional classroom space is needed to offer the six grade primary cycle, or to convert multigrade schools into binary or multi-teacher schools. Before undertaking new school construction, the MOE should examine the possibilities of upgrading school facilities to provide additional places.

Priority policy decisions which should accompany this strategy are: (a) formal MOE commitment to increase the share of primary education in the domestically-financed education budget by three percentage points per annum for the next four years; (b) MOE commitment to continue channelling donor resources toward primary education priority; and (c) MOE policy to assign the more experienced teachers to the first two grades; maintain teachers with the same students during the first two grades; and institute automatic promotion from first to second grade, transferring the pass-fail evaluation to the end of the second grade.
Recommendation 5: Improve Efficiency in the Use of Resources

120. **Ministry of Health.** To support the PHC agenda (Recommendation 4), specific areas for improving management of resources that should receive special attention from the GON in the MOH are:

(a) **Manpower reorganization** policies (para. 65(a)) should be developed and implemented to adjust current staffing patterns at the PHC level, giving priority to nurses and auxiliary personnel, and include the development of: (i) a personnel data bank; (ii) job descriptions and career paths; and (iii) training activities for the implementation of priority programs. In addition, the MOH should revise current staffing at hospitals to eliminate redundancies. For the short-term (1-3 years), a policy decision needs to be made to repeal current hiring agreements for medical school graduates and restrict entry of general physicians into specialties. Over the longer-term, the MOH should formulate a comprehensive human resources development plan, including, *inter alia*, revision of current legislation, salary scales, performance evaluation and promotion criteria, and pre-service training for physician and non-physician health staff and health service managers;

(b) A coherent **pharmaceutical policy** translated into an adequate pharmaceutical system needs to be developed to: (i) improve public sector pharmaceuticals and medical supplies system; (ii) control drug expenditures and promote rational drug use practices; (iii) safeguard the quality of consumer products; and (iv) remove constraints to the development of local industry and support investments. These improvements would strengthen the PHC system by making sure that drugs are available at the facilities level while generating savings (para. 65);

(i) Recently, the management of pharmaceuticals and medical supplies for the public health system has been transferred to the CIPS, a newly created autonomous agency under the purview of the MOH (footnote 39). The GON should: [a] separate regulatory functions from procurement activities to ensure transparency in the management of resources; [b] carry out a study to clearly define organization, functions, staffing and procedures of the CIPS and DAM. Key areas in which the study should provide specific recommendations (including investment and operating costs) are organization of procurement, provision of adequate warehousing throughout the country, and distribution system from the central to local levels, including logistical arrangements; and [c] develop a programming system based on epidemiological needs at each level of services, accompanied by inventory procedures;

(ii) To control drug expenditures and promote rational use of drugs, the MOH should: [a] develop training program for health providers and pharmacists in prescription practices and IEC campaigns for the population; [b] based on the revised essential drugs list by level of care, prioritize procurement lists so as to first, ensure supplies of the most basic drugs for PHC and second, limit the hospital level list to the most important drugs; and [c] together with MEDE, develop adequate regulation to promote the use of generic products including, for example, labeling of products and providing consumers with information on prices;

(iii) [a] Enforce registration requirements for importers and local producers; [b] strengthen the Registry Office; [c] strengthen quality control capacity by supporting the Quality Control Laboratory *(Laboratorio Nacional de Control de*
(iv) MEDE should revise current tariffs and mark-ups for pharmaceutical products and inputs; and define adequate policies to support investments in a competitive local industry;

(c) Development of supervision and MIS (paras. 65(c),(d)). Supervision is a key element in improving the quality of services and in strengthening management and efficient use of resources at the facility level. The MOH should develop a decentralized supervision system emphasizing the provision of on-the-job training and problem solving. Following the decentralization initiatives of the MOH, management capabilities at the local level should be developed. Both SILAIS and PHC facilities need information systems which combine health service statistics and financial, personnel, and pharmaceutical supply information in order to make cost-effective choices. Management training programs should accompany the implementation of such system;

(d) Addressing financial issues. Because the GON has already allocated a large enough share of its budget to health care and will face financial austerity for the foreseeable future, the MOH must fund ways to make its resources go further through greater efficiency. In this regard, the MOH should:

(i) Develop cost-containment strategies, including: [a] improving management of budgetary resources. The following actions should be implemented in the short-term: [i] revision of MOH budget formats to reflect allocations by level of care and category of expenditures (para. 68), and make them more responsive to the needs of managers at the local level. Special attention should be paid to rationalizing water, drugs, clothing, and food categories; [ii] implement cost-analysis techniques at all facilities; and [iii] develop accounting systems and skills in all MOH facilities, to include a basic minimum set of accounting books; and [b] improving hospital management so that the MOH can reallocate resources to PHC, and hospitals can adequately respond to the referral needs of the primary level. Special attention should be placed on: [i] implementation of cost-accounting system in all hospitals, coupled with training in hospital administration and modern management practices for directors, administrators and department heads; [ii] immediate implementation of inventory control for pharmaceuticals and medical supplies; [iii] strengthening essential obstetric care capabilities to respond to emergency pregnancies and births; [iv] implementation of pilot programs for subcontracting support services such as laundry and food; and [v] development of cost-recovery mechanisms for selected services and other measures, such as rental of space and equipment to physicians to attend private patients, and establishment of private wards.

(ii) Diversify its financing sources (para. 68(d)). The GON should review the role of the state and its coordination with the private sector. The public sector should focus on cost-effective health services that are not likely to be provided by the private sector due to their large public good component and encourage the private sector to provide other services. The privatization of certain services and the competition between public and private sector providers would also have a beneficial impact on the quality of services provided by the public sector. In addition, the MOH should seek financing sources other than the national budget,
such as: [a] promoting participation by the private sector. The recent
development of the private pharmaceutical sector and the experience of non-profit
organizations (e.g., Médecins Sans Frontières (MSF)), indicate that people are
willing to pay for quality health care. The privatization of certain services would
introduce much-needed competition and motivate the MOH to focus on the most
cost-effective health services, leading to an overall improvement in the quality of
services; [b] reducing the MOH's reliance on the national budget and supporting
decentralization. Successful cost-recovery at the health-care facility level would
lead to greater autonomy at the local level, thereby strengthening the
decentralization process (SILAIS). However, to provide facilities with collection
incentives, a significant portion of user-charge revenues should be kept at the
facility level for the purchase of drugs, maintenance, and equipment based on local
needs. As a result of the implementation of cost-recovery policies, the demand for
health insurance, especially for high-cost hospital care, will expand. Therefore,
regulation for such insurance programs should be also developed. A first step in
this direction would be the definition of the role of INSSBI as a health financing
source for formal sector employees. As a second step, the GON should consider
the establishment of a policy framework regarding health insurance and private
sector development. The legal basis of private for-profit health practice is
particularly relevant and should be further investigated; and [c] targeting foreign
aid to PHC priority, including careful assessment of its incremental recurrent cost
implications. Special attention should be paid in the formulation of cost-recovery
mechanisms to their equity implications (Recommendation 6).

(e) Strengthening implementation capacity at the local level (paras. 66-67). The key
instrument devised by the MOH to implement its priority programs is the decentralization of
the health structure at the district level into SILAIS. The operational strategy for the
implementation of the new structure should be clearly spelled out by the MOH by: (i)
delimiting the distinct functions to be performed by the central level vis-à-vis the SILAIS,
and the mechanisms by which the central MOH and SILAIS would be linked. Special
attention should be paid to: [a] regulation and mechanisms to ensure command of SILAIS
over hospitals under their jurisdiction. Strict norms should be designed and enforced by the
central level establishing ceilings on hospitals' share of resources; [b] functions that should
be maintained at the central level for reasons of economies of scale, such as procurement,
warehousing, and distribution of pharmaceuticals and medical supplies; and [c] mechanisms
to allow greater financial control over resources at the SILAIS level; (ii) develop SILAIS'
implementation arrangements over time, with clearly dated targets, including the following
needs: personnel, financial resources, supervision, and staff training, especially for
management purposes. This exercise would allow the MOH to plan and phase the transition
at the lowest possible cost; and (iii) develop planning, norm setting, and monitoring
capabilities at the central level to adequately support the new organizational structure of the
health system.

121. Ministry of Education. To support the primary education agenda (Recommendation 4),
specific areas for improving management of resources that should receive special attention from the
GON in the MOE are:

(a) Strengthening its organizational structure (para. 82(c)) by: (i) strengthening its
central office with qualified technical staff, keeping an appropriate skill-mix balance; (ii)
providing the appropriate management training; and (iii) developing operational procedures
and manuals;
(b) The MOE should propose amending existing legislation to: (i) restructure the occupational and educational choices of teachers, especially the empíricos; (ii) grant different career and salary scales for accredited and non-accredited teachers; and (iii) require an entrance examination for aspiring teachers;

(c) Developing a basic MIS to track and manage student flows, physical inventory, and personnel management. Not to overload the limited institutional capacity of the MOE, a basic MIS (para. 82(b)) encompassing the following modules should be designed: (i) educational statistical flows and indicators of efficiency; (ii) physical inventory; and (iii) personnel. Staffing of MIS skilled personnel and managers should be undertaken at the central and local levels. Training should be provided geared to implement cross-referenced analysis on the MIS information. Quality control spot checking to assure reliability of the information should be implemented at least every three years. In the long-term, the MOE should expand the scope of the MIS to include standardized cognitive achievement tests. The MOE should undertake the design and implementation of a cognitive, standardized achievement test to measure literacy (reading and writing) and numeric competencies, as well as problem-solving behavior of primary school students. Measuring trends over time should be incorporated in the design of the assessment system. Tests should preferably be administered in the third and sixth grades; and

(d) Addressing financial issues (para. 83). Because the GON has already allocated a significant share of its budget to the education sector and will continue to face financial constraints in the future, the MOE and higher education institutions must find ways to make their resources go further through greater efficiency. In this regard, the GON should:

(i) Develop cost-containment strategies at the MOE (para. 85), including: [a] revision of MOE budget formats to reflect allocations by education level and category of expenditures against the current accounting based practice. Special attention should be paid to rationalizing water for schools and transportation subsidies for teachers and students; [b] develop accounting systems and skills in the MOE at the central and municipal levels, to include a basic minimum set of accounting books. To speed up disbursement of public funds: [i] periodic monitoring of sectoral programming achievements should be implemented; and [ii] impact evaluation of specific relevant sectoral actions should be applied as additional criteria for resource mobilization and allocation; [c] advance its policy to reduce private school subsidies at the secondary level - target those at the primary level to the poorest groups; and [d] revise the new Ley de Carrera Docente (para. 86) to include: [i] deferring retirement provisions; [ii] decreasing the weight of seniority criteria and attendance to training courses in granting salary increases; [iii] conceding accreditation through examinations rather than attendance to professionalization courses. In the long-term, professionalization courses should be abolished; and [iv] developing teacher training programs utilizing on-the-job and/or "distance education" modalities of delivery;

(ii) Diversify its financing sources. The GON should concentrate its resources in the provision of a basic quality primary education, which not only is the only education that the vast majority of Nicaraguans will ever receive, but also yields the highest social returns. The MOE should: [a] review its current policy regarding the utilization of fees collected at the primary and secondary level, and not devote them entirely to increase salaries (para. 89). An alternative policy option would be to invest these fees in critically needed inputs at the level in which
they were collected, which would noticeably raise per capita spending levels. Yet another option would be to allocate these revenues according to predetermined shares of salary increases and critical inputs, to be managed at the local level; [b] reduce subsidies to higher education (para. 87) and introduce student fees, and use the savings to increase allocations for primary education (Recommendation 6). In addition, the GON should consider tying budget allocations to performance and efficiency criteria, thereby forcing reevaluation of teaching methods and administrative procedures; [c] promote private provision at the secondary and higher education levels, deregulating licenses and fees. The creation of private institutions might introduce competition for better services and attract students from middle- and high-income families, thereby reducing the public burden; and [d] reinforce its efforts to mobilize additional foreign aid, particularly to fund improvements at the pre-primary level (Recommendation 4 para. 9(a)).

(e) Strengthening implementation capacity at the local level (para. 82(c)). The MOE should define the decentralization model and its implementation strategy and timetable. A decision should be made on the budgetary authority to be transferred to the municipal level. Once those elements are defined and approved, costs and personnel implications, capacity of recipient government units to assume their new responsibilities, and monitoring and evaluation schemes have to be appraised before implementation is started. In the longer-term, the MOE should progressively expand the decentralization process, and provide sustained technical and political support to the process.

Recommendation 6: Improve Equity in Social Spending

122. To improve equity in the allocation of public resources, line ministries should implement espoused national priorities on PHC and primary education by shifting expenditures and investments accordingly. The Government should verify that these priorities are observed and resources shifted accordingly by monitoring budget allocation and execution, including foreign aid.

123. Although changes in financing practices along the lines of Recommendation 5 would improve overall equity by increasing the share of resources devoted to basic services that benefit most the poor, special attention should be paid to the following: In the health sector, the introduction of fees for selected services and drugs should be based on ability to pay, with very low or zero charges for low-income users to ensure access to health services. Since Nicaragua has very little experience with charging user fees for health services, an assessment of the feasibility of introducing selected, income-sensitive user fees should be conducted in the short-term. A significant share of these revenues should be used at the facility level to fund key inputs for services delivery. Because of poor management practices, health services are characterized by a lack of complementary inputs (such as drugs or medical supplies), thereby imposing an implicit user fee on beneficiaries who must acquire them at their own expense. Modest fees could generate revenues enough to cover a substantial part of the costs of currently underfunded inputs such as supervision, fuel, and maintenance.

124. In the education sector, consideration should be given to: (a) careful monitoring of the impact of voluntary fees at the primary level on actual access to schooling. A significant portion of revenues generated by user fees should be used at the school level; and (b) supervision of the performance of private provision of education services to ensure minimum quality standards. As in 57/ The LSMS (para. 25), to be implemented in the first quarter of 1993, will provide the necessary data for such analysis.
other levels, higher education quality needs to be improved (para. 73). Even with increased private sector provision of higher education, the current automatic earmarking of government revenues for higher education raises serious questions of equity, particularly in view of the extreme need for primary education services. The conclusion is both harsh and inescapable: to meet minimally acceptable targets for coverage and quality of primary education, and since Government resources cannot be expanded in the near future, the share of higher education in public education expenditures needs to contract to free up some funds for primary education.

Recommendation 7: Develop a Coherent Nutrition Strategy

125. To address high prevalence of malnutrition and low birth weight (paras. 42-43), the GON should: (a) develop a coherent nutrition policy targeting children 0-5 years old and pregnant and lactating women. The first requirement for developing such a policy is the identification of a body responsible for nutrition policy-making and inter-institutional coordination. As a second step, existing and proposed programs should be evaluated in terms of actual targeting, implementation capacity, and include careful analysis of overall costs, administrative and distribution costs, unit cost, and actual amount of resources reaching the beneficiaries. Again, not to overburden local capacity, a limited but well-targeted number of interventions should be selected for support by both GON and donor agencies. Their implementation arrangements should incorporate lessons from the experience of past and ongoing interventions, so as to avoid replicating their shortcomings; and (b) strengthening MOH nutrition activities integrating them to its PHC package of services, including: (i) development and implementation of a program to promote breast-feeding with strong Information, Communications and Education (ICE) activities; and (ii) promotion of adequate weaning practices by strengthening MOH’s nutrition education programs.

126. School feeding could play a significant role in supporting MOE’s objective of improving the internal efficiency of the school system at the primary level, by reducing absenteeism and health-related repetition and dropout. A targeted school feeding program should be developed using local products as much as possible and community/private sector management.

Recommendation 8: Target and Coordinate Foreign Aid

127. The Government strategy document (Recommendation 1) should serve as the central instrument for coordination of donor efforts. Given the social sector’s likely continued heavy reliance in the short- and medium-term on external assistance, the need for donor coordination around a consistent Government strategy is particularly great. The Government should: (a) sanction and enforce a policy to channel all donor resources to support its social sector strategy through MOF and MEC; and (b) develop mechanisms to effectively monitor implementation of programs and projects financed under foreign aid.
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Sources: MOH, Dirección Materno Infantil and PROFAMILIA.
NICARAGUA: CHANGES IN CONSUMER PRICE INDEX
SELECTED GOODS, MONTHLY, 1988-1990
(OCT/DEC 1988 = 100)
(%)
SOCIAL INVESTMENT FUND (FISE)

Institutional Form

1. The FISE was created by Decree No. 59-90, dated November 21, 1990, as an autonomous public institution, attached to the Presidency. The most salient features of the FISE decree are: (a) the FISE has a life of five years; (b) it is a financing and not an executing entity; (c) it is subject to external audit; and (d) it is exempted from the contracting law and the law of public administration.

2. The FISE was declared a high priority by Mrs. Violeta de Chamorro, President of the Republic. This is reflected through budget allocations of US$5 million each to FISE for 1991 and 1992, which are significant amounts during a period of austerity in Nicaragua. The FISE has solid support within the Government as an instrument for poverty alleviation, and the MOH, MOE, and the Nicaraguan Institute for Water and Sewerage (INAA) collaborate closely with FISE in the promotion and preparation of subprojects.

3. The President of the Republic is the president of FISE and delegates management responsibility to a Board of four members composed of the Chairman (the current incumbent is a highly respected and experienced businessman) and three other members representing the health, education, and construction sectors, all from the private sector. The present incumbent has been Chairman of the Board since June 1992. The first Chairman resigned after less than two years of service to go back to the banking sector. He judiciously chose a time when the institution had been well set up and major foreign donors had shown strong interest in supporting FISE. The Executive Director and the top staff have not changed since the start of FISE. The Board meets every week to approve subprojects and has additional sessions as required to: (a) approve general strategy, action plans and rules of operation; (b) approve the annual budget; and (c) authorize FISE to contract external and domestic funds.

Performance in 1991 and 1992 and Needs for Improvement

4. FISE was started by the GON in February 1991 with strong initial support from USAID, which transferred a US$10 million program from the Institute for Municipal Development (INIFOM) to FISE. Soon, the IDB came in with US$3 million for financing of subprojects and US$1 million for institutional development. This was complemented by a US$500,000 technical assistance grant from UNDP. The Government of Canada, through the Canadian International Development Agency (CIDA), has also approved US$1 million.

5. After 18 months of operations, FISE has proved to be a highly efficient institution of the GON. As of July 31, 1992, FISE had approved 549 subprojects for a total of US$21 million. The average size of subprojects is US$38,250. This is a significant effort considering that FISE is a new institution that has had to organize its administrative structure, recruit its staff, design its operating procedures, inform potential beneficiaries and executing agencies of its objectives and methods of operation, as well as coordinate with line ministries and agencies to complement their efforts. FISE disbursements were also limited by its amount of financing available (mostly from GON, USAID, and IDB). Operating costs represent 6% of total commitments which is reasonable based on the number of subprojects approved and their average cost and compares favorably with experience in other Social Investment Fund (SIF) operations in Latin America. FISE is now close to reaching its goal of covering all 143 municipalities of the country.
By June 30, 1992, 94% of all municipalities in Nicaragua had received financing for subprojects. The first Chairman of the FISE Board succeeded in building a team of capable and dedicated executives, many of whom returned to Nicaragua from neighboring countries to work for FISE. FISE is well respected in the country by the general public and by foreign donors.

6. A review by IDA of FISE's operations show a need for further improvement in the following areas:

(a) During its initial months, FISE financed a large number of subprojects in Managua, the capital, where 27% of the population lives. Such an approach made sense initially when FISE was establishing its identity. It also allowed a faster implementation of subprojects because they were clustered in a small geographic area. FISE, however, has already started to remedy this imbalance by promoting and financing more subprojects in rural municipalities, using a targeting mechanism to ensure that subprojects are properly targeted to the poorest groups and municipalities;

(b) Another weakness of FISE has been the initial lack of promotion. This was because well-designed promotion campaigns could not be widely developed until the menu of subprojects and the eligibility criteria had been well defined and delivery capacity established. These have now been established and will form part of the FISE Operational Manual. FISE has started to organize project preparation seminars with municipalities where the project preparation capacity is weak;

(c) An area in need of correction is the sectoral allocation of funds. As of June 30, 1992, 31% of the funds for subprojects went to repairs of schools, 17% to repairs of health posts, and 52% to economic infrastructure such as drainage, road improvements, and markets. Initially, a large proportion of FISE support went to economic infrastructure subprojects because these are easy to evaluate and implement and provide significant short term employment and visibility, which was considered a priority at the beginning of the present Administration. FISE will allocate a larger proportion of funds to social infrastructure and social services subprojects;

(d) There is a need to continue to improve the quality of subprojects. Subprojects are generally of good quality, but a sample review showed some design problems (e.g., use of different roof designs for primary schools) in a few social infrastructure subprojects which could easily be corrected. FISE is already taking measures to improve subproject quality, including improvement in appraisal methodology through training of the evaluation staff, standardization of design, and improvements of supervision. FISE has undertaken a thorough supervision of its subprojects with staff doing site visits about twice a month. However, the lack of experience of some staff did not allow them to always detect problems at an early stage before all funds were disbursed to the contractors. FISE is remediating this by providing training to its supervision staff;

(e) There have been delays in designing and implementing a management information system (MIS). Significant progress has now been made in this area and full MIS implementation is a condition of effectiveness; and
No impact assessment of FISE subprojects has been undertaken so far. The only available indicator of FISE's contribution toward poverty alleviation is the volume of employment created: 73,500 man/months during the first 18 months of operations. An impact evaluation study is scheduled to be carried out by November 30, 1993.

Future Objectives and Approach

7. Supported by IDA, IDB, and other donors, the GON has reviewed the objectives, policies, and operating procedures of FISE. To protect the living standards of marginal population groups from further deterioration during the period of economic adjustment and improve these standards in the medium term, FISE will devote a larger proportion of its resources to the financing of social infrastructure and social services subprojects essential for the development of human capital, the poor's only resource. Employment creation will remain an important objective, but less so than at the beginning of the economic reform program when it was the primary objective of FISE.

8. Several mechanisms have been put in place to ensure that subprojects would be properly targeted to the poor. First, FISE will allocate its funds on the basis of a poverty map ranking all 17 departments and 143 municipalities of the country based on population, child malnutrition, and access to potable water and basic sanitation indicators. These indicators have been used to produce a municipal index of poverty and to assign a larger volume of resources to the poorest municipalities. Given the scarcity of data, FISE has made a major effort to update poverty information using data from sector agencies. The use of child malnutrition rates and access to water and sanitation as the main criteria for targeting is satisfactory because they usually coincide with low income levels, high illiteracy rates, high school repetition and dropout rates, and high infant and maternal mortality and morbidity rates. Second, the use of FISE funds is programmed by sectors so that social infrastructure and social services subprojects represent about 75% of the overall program. Third, subprojects with the highest social return (primary education, PHC, and water and sanitation) are given higher priority.

9. As demand will not come naturally in the poorest areas because of the lack of capacity to prepare projects and because of the low incentives of private contractors to operate in these areas, FISE will make special efforts to ensure that its targeting goals are attained. This will be done through: (i) subproject and eligibility criteria; (ii) strong promotion in poorer areas; (iii) special incentives such as lower cost-sharing requirements to sponsoring agencies that present projects in poorer localities; and (iv) extensive technical assistance to those who lack project preparation capacity.

10. FISE would finance subprojects in accordance with eligibility criteria and evaluation parameters established in its Operational Manual. Investments would be financed in the following areas, according to the standardized menu of subprojects:

(a) **Social Infrastructure.** This program has been developed within the context of the GON strategy to improve the delivery of basic services. It would complement priority primary health and education, and nutrition programs, paving the way for the medium and long term improvement of service delivery by the line ministries. It includes the rehabilitation only (no new construction) of pre-primary and primary schools, health centers and posts, and water and sanitation systems for marginal urban and rural areas currently lacking services. Social infrastructure support would represent about 55% of the FISE program.
(b) Economic Infrastructure. This program would include: (i) public markets and public service facilities (used for the delivery of social programs); (ii) small bridges, drainage, canals, and retention walls; and (iii) rural road improvement. It would represent about 23.5% of the FISE program.

(c) Social Services. This program has been developed as a complement to the social infrastructure program, providing equipment and software components such as training to ensure effective delivery of services in the rehabilitated infrastructure. FISE would finance nutrition, PHC, primary and pre-primary education programs whose target population would be pregnant and lactating women and children aged 0 to 12 years. This would represent about 20% of the FISE program. FISE would finance: (i) basic sanitation training; (ii) PHC training programs for nurse aids and paramedical staff; (iii) environmental and health education; (iv) rural nutrition centers for children; (v) equipment and furniture for health centers; (vi) school desks and other furniture; and (vii) school libraries. This program would be executed by NGOs, private and public sector agencies. It would require significant promotional effort from FISE as well as identification of dynamic, capable, and determined executing agencies.

(d) Community Training for Maintenance of Subprojects. To ensure sustainability of subprojects, FISE would finance subprojects providing training and technical assistance to local committees in charge of the maintenance of health posts, schools, and water and sewerage systems. This would represent about 1.5% of the FISE program. For each subproject, FISE would enter into tripartite maintenance agreements with the sector line ministry or agency (MOH, MOE, or INAA) and a local maintenance committee representing beneficiaries. NGOs or private companies would be contracted to: (i) help create local maintenance committees when they do not exist; (ii) provide training in maintenance of physical facilities based on maintenance manuals to be developed jointly by FISE and line ministries with the participation of local communities; and (iii) train local committees in simple fund-raising techniques, funds management, general management, and supervision.

11. The proposed allocation of funds takes into consideration: (a) user priorities; (b) GON priorities; (c) the need to give a higher priority to programs having a high social return; and (d) international donors' interest.

12. Administrative costs represent about 6% of the FISE total budget, which is considered efficient based on the average size, type, and distribution of subprojects expected to be processed and the expected technical assistance and supervision efforts.

Targeting of Funds

13. Under a targeting system introduced in July 1992, FISE aims at nationwide coverage, but giving priority to assigning resources to the poorest areas. Resources are allocated to each of the 143 municipalities of the country according to population size and a poverty index, composed of displaced population, child malnutrition, and water supply indicators. Municipalities are grouped in three categories ranging from extreme to medium poverty. Poorer municipalities (i.e., those with extreme and high poverty) are assigned larger allocations on a per capita basis than the other municipalities. The municipalities with
medium poverty are also eligible for FISE financing because there are poor people in relatively wealthier municipalities. Geographical targeting is complemented by a ranking which gives priority to subprojects providing the highest return. For example, on a scale of 1 to 3, water and sewerage subprojects have a priority 1 (high priority) whereas roads have a priority 3 (low priority).

14. FISE has developed a quarterly monitoring system that compares actual commitments to amounts of funds allocated to each municipality. This will allow FISE to strengthen its promotion in municipalities where there is a deficit of appraised subprojects.

Organization and Staffing

15. FISE is organized into seven departments: projects, administration and finance, monitoring and supervision, external financing, legal, internal auditing, and data processing. This is a sound administrative structure which is comparable to that of other successful SIFs in Latin America. FISE has a total staff of 58, of which 37 are professionals including civil engineers, economists, lawyers, accountants, computer specialists, and other technical specialists. The higher level staff were screened and selected in close consultation with UNDP. All department heads have graduate degrees from abroad and their competence is comparable to the highest level in the public sector. By December 1992, FISE plans to increase its staff to 88, of which 56 will be professionals. The staffing plan was prepared as a function of FISE’s expected workload and standard staff productivity ratios comparable to those used in similar social funds (e.g., eight subprojects per evaluator per month and 30 subprojects per supervisor per month). In addition to its own staff, FISE plans to subcontract a number of training and supervision tasks to NGOs, private companies, and consultants when required for specialized tasks. This strengthened organization and larger number of professional and support staff will be sufficient to handle the increased number of subprojects expected under the project.

Technical Assistance

16. FISE receives technical assistance from IDB and UNDP. Administered by UNDP and totalling US$1.5 million, the contract has provided for the financing of: (i) all administrative costs, including salaries of FISE directors, unit chiefs, and professional staff; (ii) logistical equipment (vehicles, computers, telephones, faxes, photocopying equipment, furniture, etc.); (iii) part of other operating expenses such as rent and maintenance; and (iv) about 50 months of consultants. This contract was extended to December 31, 1992.

17. FISE’s requirements for technical assistance and operating costs have been estimated at US$4.2 million for the 1993-94 period. Financing would be provided through: (i) an IDB loan for a three-year period which adequately covers the US$1.7 million in technical assistance estimated to be required from IDB for the project; (ii) a second-phase technical assistance contract of US$0.4 million between FISE and UNDP; (iii) GON counterpart funds of US$1.3 million; and (iv) US$0.6 million from IDA.

Program Targets and Operating Capacity

18. Clearly, there is an enormous potential demand for subprojects that could be financed by FISE, especially given the status of disrepair of social infrastructure after 10 years of civil war and the level of poverty in Nicaragua. In the document presented to the Consultative Group meeting in Washington in March 1992, FISE estimated a program of US$255 million over five years. However, based on FISE’s
estimated operating capacity, IDA considered that a program of US$64.5 million (including operating costs of US$4.0 million) over a two-year period starting in January 1993 is more reasonable. This estimate is based on: (i) projected increase in staffing, but maintaining total operating expenses in a proportion of about 6% of total commitments (which is in line with operating costs experienced in other SIF projects); (ii) the objective of targeting additional resources to the poorest municipalities which usually have less subproject preparation capacity; and (iii) expected financing available. A program of US$64.5 million over two years would require commitments of about US$2.7 million per month. Although ambitious, the experience of SIFs in similar countries and FISE's own operational record indicate that this program target should be feasible.

**Major Participants in FISE Projects**

19. The major participants in FISE projects are: (i) **the beneficiaries**, the communities who benefit directly from FISE through the project in terms of income, employment, health, nutrition, and education; (ii) **the sponsoring agency**, i.e., the institution with full legal entity, responsible to present a subproject to FISE (e.g., municipalities, public sector agencies including line ministries, or NGOs); (iii) **the executing agency**, the agency or contractor in charge of executing a FISE project and responsible for the selection of personnel who will undertake the project; and (iv) **the supervising agency**, in cases where specialized technical knowledge is required such as in more complex water and sanitation subprojects.

20. Identifying and preparing subprojects is the responsibility of sponsors and beneficiaries, but line ministries, municipalities and other sponsors have significant deficiencies in subproject preparation capacity. MOH and MOE will receive technical assistance to improve their subproject preparation capacity. USAID is considering a project, through INIFOM, to help municipalities improve their project preparation capacity. FISE has also started to take a more active role and provide advice to sponsors through its promotion staff. In some cases, this function would be subcontracted to private contractors or NGOs.

**Project Promotion, Identification, and Preparation**

21. The FISE promoter establishes the first contact with the beneficiaries and the sponsoring agency, and determines the likely eligibility of the subproject, based on FISE eligibility criteria. The promoter makes the first judgment on a project and passes it on to the evaluation staff for appraisal.

22. FISE's pipeline of subprojects now consists of: (i) a list of over 400 eligible subproject requests totalling US$15 million, and (ii) 50 adequately prepared subprojects for a total of US$1 million. To improve its pipeline of subprojects, FISE has prepared and started to implement a program to strengthen subproject promotion and preparation: (i) it has formalized a plan to allocate funds to municipalities on the basis of a poverty map so that municipalities have more incentives to risk some of their limited own funds to prepare subprojects; (ii) FISE is more actively publicizing its menu of subprojects and eligibility criteria both with municipalities, INIFOM, and line ministries; (iii) it has been organizing project preparation seminars with municipalities, line ministries, and private contractors; and (iv) in selected cases in poor municipalities, FISE will provide funds for subproject preparation (preparation expenses to be financed if the subproject is approved by FISE).
Project Appraisal

23. All subproject requests are forwarded by the Director of the Projects Department to the appropriate specialist (e.g., social infrastructure or social services) for evaluation. The appraisal staff reviews subprojects and undertakes a site visit with the sponsor. To be more efficient, site visits of various subprojects are grouped regionally. Agreement is reached with the sponsoring agency on the completion of subproject preparation based on FISE’s evaluation criteria included in the Operational Manual. A project report is then prepared, revised by the Projects Director and the Executive Director, and sent for approval by the Board.

24. As reflected in the Operational Manual, the scope and process of subproject appraisal depends on the complexity and types of subprojects being financed by FISE. The first criteria applying to all subprojects is to ensure that they reach the poorest segments of the population and respect the funding allocation based on the poverty index. After this screening, subprojects are evaluated according to technical, financial, social, institutional, and environmental criteria. FISE evaluates whether subproject proposals are realistically costed based on a system of standard regionalized unit costs. For social and economic infrastructure subprojects, appraisal criteria cover technical feasibility, labor content, cost sharing, economic rate of return of no less than 12% when applicable, cost per beneficiary when the economic rate of return cannot be applied, and institutional arrangements for sustainability and cost recovery. In appraising social services subprojects, the focus is on cost per beneficiary, implementation capacity of executing agency and its ability to provide for recurrent expenditures, the agency’s financial state, and the ratio of administrative costs over total subproject cost.

Project Approval

25. The Board is the ultimate instance for project approval. The Board meets each week and reviews a package of subprojects. Sponsoring agencies are then informed of the Board’s decision and contracts are signed.

Project Implementation and Supervision

26. Social infrastructure subprojects are carried out by local private contractors or NGOs under the supervision of FISE or by an NGO in the case of complex water subprojects. Social services subprojects would be typically carried out by an NGO under the supervision of a government department or another NGO. Each subproject would be covered by a three- or four-party contract, satisfactory to FISE, between FISE (as the funding agency), the sponsoring agency, the contractor and the separate supervising agency.

27. Under the above contracting system, FISE disburses a portion of the cost of each project directly to the contractor as an advance upon signing of the contract, against receipt of a commercial bank guarantee of 15% of subproject contract, which is equal to the first advance. This requirement, which ensures that contractors would start and complete works following the agreed-upon schedule, has routinely been applied by FISE as well as other social investment funds in Latin America. Thereafter FISE makes partial payments every two or four weeks covering the percentage of work completed, the latter having to be certified independently by the FISE supervisor.
Coordination with Ministries

28. FISE coordinates its operations with ministries and line agencies, more specifically MOH, MOE, and INAA, to ensure that: (i) FISE-financed subprojects are geared to fit into the long-term plans of the ministries; (ii) the ministries' technical norms and standards are followed (e.g., prototype architectural designs for schools); and (iii) recurrent costs (e.g., teachers, textbooks, nurses) will be covered by the responsible ministry. Coordination between FISE and line ministries and agencies is good and is undertaken through: (i) overall agreements between FISE and line ministries delineating their field of collaboration; (ii) FISE's clearance of subprojects with line ministries on a non-objection basis; and (iii) regular meetings to review the pipeline of subprojects. To formalize the parameters of its cooperation with line ministries, institutional agreements have been prepared. FISE has signed cooperation agreements with MOH, MOE, and INAA.

Subproject Sustainability

29. FISE appraisals emphasize that its subprojects are structured to ensure the sustainability of each investment and its benefits. In the social and economic infrastructure programs, FISE only finances the rehabilitation or expansion and not the construction of schools and health posts and centers, and it finances road rehabilitation as opposed to construction. Before contracts for the rehabilitation of schools or health posts are signed, FISE would require confirmation from MOH or MOE that expenditures for salaries of teachers or health care promoters and other recurrent expenditures such as teaching materials or medicines will be budgeted by the line ministry. In the social services program, FISE would support subprojects with low recurrent costs, such as training of health care promoters. Also, counterpart financing of at least 5% of the total subproject cost would be required from beneficiaries (or sponsors in the case of subprojects sponsored and implemented by NGOs) in the form of cash, kind, or labor to ensure submission of good quality subprojects that would likely be sustainable beyond FISE support. Given the current limited institutional capacity and budgetary limits in MOE and MOH, FISE will finance subprojects to train local committees ("patronatos") in maintenance of social infrastructure. Subprojects would be undertaken under tripartite agreements between local committees, FISE, and the relevant ministry. The local communities would use maintenance manuals for schools and health posts that are being jointly prepared by MOH, MOE, and FISE. These maintenance manuals are part of in the Operational Manual.

30. FISE is taking the appropriate measures to ensure that subprojects financed under its recently-started water and sewerage program are sustainable. All subproject contracts have a clause requiring the final owner of the project, INAA, or the municipality, to provide for cost recovery and maintenance. As INAA's operational coverage is limited mostly to urban areas, INAA has agreed that FISE would organize the formation of local water committees where necessary to set up tariffs and administer revolving funds to recover sufficient funds to cover the costs of operation and maintenance of water and sanitation systems. FISE is also considering signing a contract with a private firm or an NGO to provide technical assistance in the poorer municipalities to set up and strengthen water committees and assist them to establish and collect tariffs.

31. As regards social services subprojects, FISE would be careful to select subprojects sponsored by NGOs who have a proven track record in the type of subproject presented. Also, FISE would support the expansion of already successful projects, and would require significant cost sharing from the sponsoring NGOs (15%-25%). These subprojects would be approved in consultation with MOE and MOH, that would
ensure recurrent cost funding for the operation of the facilities provided for under the subprojects and take over the ownership when the subprojects are completed (e.g., construction of school desks).

Management Information System

32. FISE’s management information system (MIS) will consist of: (a) a subproject database that will allow FISE’s management to better track its increasing number of requests and analyze the evolution of its portfolio in relation to its targeting and sectoral allocation goals; (b) a unit cost system to improve evaluation of subproject costs; (c) a supervision control system to keep record of subproject budgets, physical progress and disbursements, and issue payment orders to the administration departments; and (d) a budget monitoring and control system. FISE’s MIS, currently under development, will be operated on 15 personal computers and will use a software partly developed in-house. The MIS will produce regular reports and performance indicators, allowing management to: (i) take corrective actions when necessary; (ii) improve its planning; and (iii) better inform sponsors and financiers on the progress of subprojects. The unit cost system is ready and operational. The two other systems, currently operated manually, are being computerized.
## FISE-I 1991 DISBURSEMENTS

<table>
<thead>
<tr>
<th></th>
<th>No. of Subprojects (†)</th>
<th>Subproject Cost (US$ million)</th>
<th>% of Project Area (%)</th>
<th>% of Total Cost (%)</th>
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<td></td>
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<td>Primary Schools</td>
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<td>8.9</td>
<td>3.3</td>
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<td>Daycare Centers</td>
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<td>Latrines Program</td>
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<td>21.4</td>
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### NICARAGUA: LEADING CAUSES OF DEATH*
#### 1989

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<tr>
<th>CAUSES</th>
<th>TOTAL</th>
<th>&lt; 1 YEAR</th>
<th>1-4</th>
<th>5-14</th>
<th>15-34 YEARS</th>
<th>35-49 YEARS</th>
<th>50+ YEARS</th>
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<td>43.9</td>
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<td>2. Lung Diseases</td>
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<td>3. Acute Respiratory Infections</td>
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<td>4. Heart Attacks</td>
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<td></td>
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<td>5. Nephritis</td>
<td>11.5</td>
<td></td>
<td></td>
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<td>6. Accidents</td>
<td>11.3</td>
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<td>12.8</td>
<td></td>
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<td>7. Malignant Tumors</td>
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<td>8. Traffic Accidents</td>
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<td>9. Genetic Disorders</td>
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<td>10. Perinatal Diseases</td>
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Sources: MOH, SINEVI, DINEL.
* Average occurrences per 100,000 inhabitants, except for infants (<1 year) where the average is per 1,000 live births.
# NATIONAL RECONCILIATION AND REHABILITATION PROGRAM (PRRN)

<table>
<thead>
<tr>
<th>Program</th>
<th>Start Date</th>
<th>Duration</th>
<th>Amount(^2) (US$ million)</th>
<th>Source of Financing</th>
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<tr>
<td>PRODERE</td>
<td>06/90</td>
<td>38 months</td>
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<td>Socio-economic rehabilitation of war-affected populations</td>
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<td>5 years</td>
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<td>World Food Program</td>
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<td>ACNUR, rapid impact projects</td>
<td>03/92</td>
<td>1½ years</td>
<td>12.00</td>
<td>USA Bureau for Refugees, EEC, Governments of Sweden, Finland, Denmark, and Norway</td>
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<tr>
<td>Rio Coco — Support to repatriate, displaced and demobilized populations in the North Atlantic Region (RAAN)</td>
<td>07/91</td>
<td>3 years</td>
<td>2.92</td>
<td>EEC</td>
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<tr>
<td>Zona Seca Sur — Support to repatriate, displaced and demobilized populations in Region I</td>
<td>07/91</td>
<td>3 years</td>
<td>2.44</td>
<td>EEC</td>
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<tr>
<td>Information System for war-affected populations</td>
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<td>PRORAAS — Integral development project for refugees, repatriate and displaced populations in the South Atlantic Region (RAAS)</td>
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<td>Government of Holland</td>
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<td>Rio San Juan — Integral development project</td>
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<td>Spanish Red Cross, International Solidarity, Committee for the Support of Refugees</td>
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2/ These figures include counterpart financing by the GON.
<table>
<thead>
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<th>RURAL</th>
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<sup>1</sup> Comprises Managua.

<sup>2</sup> Comprises special zones of RAAN, RAAS and RSJ.
NICARAGUA: CAUSES OF INFANT MORTALITY
1987 & 1989

Sources: MINSA Evaluations, 1988, 1990
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<td>-</td>
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Sources: MC  · 1, División de Atención Médica
- not available
## Immunization Coverage (%)

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<th>&lt;1 YEAR</th>
<th>0-5 YEARS</th>
<th>&lt;1 YEAR</th>
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<th>&lt;1 YEAR</th>
<th>0-5 YEARS</th>
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<td>91</td>
<td>72</td>
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<td>17</td>
<td>51</td>
<td>38</td>
<td>43</td>
<td>16</td>
<td>83</td>
<td>24</td>
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Sources: MINSA, 1990
### COVERAGE OF GROWTH MONITORING ACTIVITIES
**II and III Trimesters**
**By Regions**
**1990**

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<th>III TRIMESTER</th>
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<td>&lt; 1 year</td>
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<td>&lt; 1 year</td>
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<td>1-5 years</td>
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MINISTRY OF HEALTH STAFFING PATTERNS

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<tr>
<td>Doctors</td>
<td>1,345</td>
<td>1,212</td>
<td>2,172</td>
<td>2,462</td>
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<td>Nurses</td>
<td>640</td>
<td>808</td>
<td>1,271</td>
<td>1,580</td>
<td>2,092</td>
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<tr>
<td>Dentists</td>
<td>179</td>
<td>190</td>
<td>222</td>
<td>320</td>
<td>261</td>
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<td>Aux. Nurses</td>
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<td>3,879</td>
<td>4,378</td>
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<tr>
<td>Other Tech.</td>
<td>-</td>
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<td>9,610</td>
<td>8,485</td>
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<td>TOTAL</td>
<td>-</td>
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not available.

MOH NURSE/PHYSICIAN RATIOS
1979-1990

Nurses/Doctors + Inc. Auxiliaries = Intl. Norm
### DISTRIBUTION OF HEALTH EXPENDITURES
By Recurrent and Capital Expenditures (%)

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<tr>
<td>Recurrent</td>
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<td>96.9</td>
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<td>99.7</td>
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<td>Non-Wages</td>
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<td>Machinery &amp; Equipment</td>
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<td>100.0</td>
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- not available

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### DISTRIBUTION OF HEALTH EXPENDITURES
By Recurrent & Capital Expenditures

**RECURRENT**

- 1984: 89.5
- 1987: 96.9
- 1989: 92.7
- 1990: 99.7
- 1991: 99.4
- 1992: 88.3

**CAPITAL**

- 1984: 10.4
- 1987: 4.2
- 1989: 7.3
- 1990: 0.4
- 1991: 0.6
- 1992: 11.7

Note: Figures may not add up due to rounding.
DISTRIBUTION OF HEALTH EXPENDITURES
BY PROGRAM
(%)
### DISTRIBUTION OF HEALTH EXPENDITURES BY REGIONS (%)

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<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>RAAN</th>
<th>RAAS</th>
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<td>16.4</td>
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<td>Exp. 1990</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Exp. 1991</td>
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<td>16.9</td>
<td>36.9</td>
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**Sources:** 1986-1989 from Plan Maestro, Ministry of Health. 1991 from budget, Ministry of Health; Population Projections from INEC.

**Note:** Percentage of Health Expenditures targeted for regions, or between 86 and 90 percent of total health budget. Population figures are projections for 1991.
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Sources: Budget data from MOH and MOF. External funding from Plan Maestro, MOH and Zotelle, 1991. GDP from The World Bank. n.a. = not available.
### NICARAGUA: GROSS ENROLLMENT RATIOS (1978-1990)

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<th>TOTAL</th>
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<th>RURAL</th>
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### NICARAGUA: GROSS ENROLLMENT RATIOS BY GENDER AND AREA (1990)

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<td>Males</td>
<td>94</td>
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<tr>
<td>Females</td>
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<td>URBAN AREAS</td>
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<td>Males</td>
<td>92</td>
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<tr>
<td>Females</td>
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<tr>
<td>Males</td>
<td>98</td>
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<tr>
<td>Females</td>
<td>105</td>
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**Sources:** USAID, *Nicaragua Primary Education Subsector Assessment*, 1991.
<table>
<thead>
<tr>
<th>MINISTRY OF EDUCATION EXPANSION OF FACILITIES (1978-1989)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1978</strong></td>
</tr>
<tr>
<td><strong>Schools</strong></td>
</tr>
<tr>
<td>Urban</td>
</tr>
<tr>
<td>Rural</td>
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<tr>
<td><strong>Classrooms</strong></td>
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<tr>
<td>Rural</td>
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### ANNEX 9
NICARAGUA EDUCATION INDICATORS
Page 3 of 8

#### ENROLLMENT GROWTH
1970-1990

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<td>Primary</td>
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<td>536.8</td>
<td>600.0</td>
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<td>172.1</td>
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</tbody>
</table>


Note: Enrollment ratios are generally based on age groups 4-6 pre-primary, 7-12 for primary, 13-18 for secondary and technical, and 19-24 for higher education. The latter 1970 estimate has been based on the 20-24 year old group. The enrollment and GER listed for higher education in 1990 is actually an estimate for 1991.

#### ENROLLMENT RATES BY LEVEL OF EDUCATION
1970-1990

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-Primary</th>
<th>Primary</th>
<th>Secondary &amp; Tech.</th>
<th>Higher Educ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>5.0</td>
<td>18.0</td>
<td>3.4</td>
<td>6.7</td>
</tr>
<tr>
<td>1978</td>
<td>5.5</td>
<td>16.5</td>
<td>3.4</td>
<td>6.7</td>
</tr>
<tr>
<td>1983</td>
<td>8.8</td>
<td>16.5</td>
<td>10.5</td>
<td>6.3</td>
</tr>
<tr>
<td>1988</td>
<td>21.0</td>
<td>34.5</td>
<td>6.3</td>
<td>6.3</td>
</tr>
<tr>
<td>1990</td>
<td>32.6</td>
<td>6.7</td>
<td>6.3</td>
<td>6.7</td>
</tr>
</tbody>
</table>

### DISTRIBUTION OF EDUCATION EXPENDITURES

By Recurrent and Capital Expenditures


<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurrent</td>
<td>94.9</td>
<td>98.2</td>
<td>91.1</td>
<td>95.1</td>
<td>94.4</td>
<td>99.3</td>
<td>99.9</td>
</tr>
<tr>
<td>Wages</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>64.0</td>
<td>56.7</td>
<td>77.0</td>
<td>89.2</td>
</tr>
<tr>
<td>Non-Wages</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>31.1</td>
<td>37.7</td>
<td>22.3</td>
<td>10.7</td>
</tr>
<tr>
<td>Investment</td>
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<td>1.8</td>
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<td>4.9</td>
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<td>0.1</td>
</tr>
<tr>
<td>Mach. &amp; Equip.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.1</td>
<td>1.1</td>
<td>0.7</td>
<td>0.1</td>
</tr>
<tr>
<td>Construction</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.8</td>
<td>4.6</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Sources:** Ministry of Education and Ministry of Finance: 1989 and 1990 are executed budgets, 1991 and 1992 are proposed budgets.

**Notes:**
- Wages includes salaries and all additional benefits. In 1989 and 1990 this also includes Cuban Teachers' Fund. Non-wages includes Non-personnel services, supplies and materials, and other transfers not related to wages. In 1989 and 1990 this also includes unspecified transfers to Technical Institutes and other programs. In 1989 and 1990, construction includes the installation of a laboratory. University expenditures not included in this table.
- not available

### DISTRIBUTION OF EDUCATION EXPENDITURES

By Recurrent & Capital Expenditures

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurrent</td>
<td>94.9</td>
<td>98.2</td>
<td>91.1</td>
<td>95.1</td>
<td>94.4</td>
<td>99.3</td>
<td>99.9</td>
</tr>
<tr>
<td>Capital</td>
<td>5.1</td>
<td>1.8</td>
<td>8.9</td>
<td>4.9</td>
<td>5.7</td>
<td>0.7</td>
<td>0.1</td>
</tr>
</tbody>
</table>

**Note:** Figures may not add up due to rounding.
## PUBLIC & PRIVATE ENROLLMENTS
1978-1989

<table>
<thead>
<tr>
<th></th>
<th>1978</th>
<th>1989</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Primary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>-</td>
<td>74.3</td>
</tr>
<tr>
<td>Private Subsidized</td>
<td>-</td>
<td>8.3</td>
</tr>
<tr>
<td>Private Paid</td>
<td>-</td>
<td>17.3</td>
</tr>
<tr>
<td><strong>Primary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>85.0</td>
<td>86.5</td>
</tr>
<tr>
<td>Private Subsidized</td>
<td>9.8</td>
<td>7.6</td>
</tr>
<tr>
<td>Private Paid</td>
<td>4.7</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Secondary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>-</td>
<td>73.6</td>
</tr>
<tr>
<td>Private Subsidized</td>
<td>-</td>
<td>12.9</td>
</tr>
<tr>
<td>Private Paid</td>
<td>-</td>
<td>13.4</td>
</tr>
</tbody>
</table>

**Sources:** MOE, Planning Bureau, 1991
- not available
<table>
<thead>
<tr>
<th>YEAR/GRADE</th>
<th>TOTAL</th>
<th>URBAN</th>
<th>RURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 4 Grades</td>
<td>34.1</td>
<td>8.8</td>
<td>45.2</td>
</tr>
<tr>
<td>4 Grades +</td>
<td>65.9</td>
<td>91.2</td>
<td>54.8</td>
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<tr>
<td>1983</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>&lt; 4 Grades</td>
<td>39.0</td>
<td>12.8</td>
<td>43.7</td>
</tr>
<tr>
<td>4 Grades +</td>
<td>61.0</td>
<td>87.2</td>
<td>56.3</td>
</tr>
<tr>
<td>1989</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 4 Grades</td>
<td>31.6</td>
<td>12.8</td>
<td>35.1</td>
</tr>
<tr>
<td>4 Grades +</td>
<td>68.4</td>
<td>87.3</td>
<td>64.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Admin.</td>
<td>2.0</td>
<td>8.0</td>
<td>14.0</td>
<td>30.6</td>
<td>30.9</td>
<td>16.4</td>
<td>11.2</td>
</tr>
<tr>
<td>Basic Education</td>
<td>62.0</td>
<td>49.0</td>
<td>42.0</td>
<td>33.8</td>
<td>30.4</td>
<td>40.1</td>
<td>48.2</td>
</tr>
<tr>
<td>Pre-primary</td>
<td>--</td>
<td>--</td>
<td>2.0</td>
<td>2.3</td>
<td>1.8</td>
<td>2.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Primary</td>
<td>62.0</td>
<td>49.0</td>
<td>33.0</td>
<td>29.5</td>
<td>25.6</td>
<td>36.9</td>
<td>41.9</td>
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<tr>
<td>Adult Education</td>
<td>--</td>
<td>--</td>
<td>7.0</td>
<td>2.0</td>
<td>2.9</td>
<td>0.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Secondary</td>
<td>15.0</td>
<td>25.0</td>
<td>14.0</td>
<td>0.3</td>
<td>6.6</td>
<td>8.9</td>
<td>7.1</td>
</tr>
<tr>
<td>Vocational</td>
<td>--</td>
<td>--</td>
<td>5.4</td>
<td>4.3</td>
<td>5.6</td>
<td>6.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Teacher Trg. 2/</td>
<td>1.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.1</td>
<td>4.3</td>
<td>3.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Higher Education</td>
<td>16.0</td>
<td>14.0</td>
<td>21.0</td>
<td>18.1</td>
<td>17.6</td>
<td>24.7</td>
<td>28.7</td>
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<td>Other 3/</td>
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<td>3.0</td>
<td>8.0</td>
<td>9.6</td>
<td>4.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Sources: MOE and MOI data
Notes:
1/ Includes central, regional and municipal level administration. Definition varies from year to year.
3/ Includes special education and non-specified allocations to other institutions.
-- not available
## INTERNAL AND EXTERNAL EDUCATION FINANCING

As a Share of Government Expenditures & GDP (%)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>INTERNAL GOVT</th>
<th>EXTERNAL GOVT</th>
<th>TOTAL GOVT</th>
<th>TOTAL GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>12.3</td>
<td>1.8</td>
<td>14.1</td>
<td>4.6</td>
</tr>
<tr>
<td>1982</td>
<td>10.4</td>
<td>0.8</td>
<td>11.2</td>
<td>4.3</td>
</tr>
<tr>
<td>1983</td>
<td>8.2</td>
<td>0.2</td>
<td>8.4</td>
<td>5.2</td>
</tr>
<tr>
<td>1984</td>
<td>9.3</td>
<td>0.7</td>
<td>10.0</td>
<td>6.0</td>
</tr>
<tr>
<td>1985</td>
<td>10.3</td>
<td>0.2</td>
<td>10.5</td>
<td>5.6</td>
</tr>
<tr>
<td>1986</td>
<td>11.1</td>
<td>0.0</td>
<td>11.1</td>
<td>6.2</td>
</tr>
<tr>
<td>1987</td>
<td>12.5</td>
<td>0.1</td>
<td>12.6</td>
<td>6.0</td>
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<tr>
<td>1988</td>
<td>-</td>
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</tr>
<tr>
<td>1989</td>
<td>9.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1990</td>
<td>11.9</td>
<td>n.a.</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td>1991</td>
<td>20.1</td>
<td>1.8</td>
<td>21.9</td>
<td>6.0</td>
</tr>
<tr>
<td>1992</td>
<td>15.2</td>
<td>1.2</td>
<td>16.4</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Sources: 1981 through 1987 from Labadie, Table 6, 1991 and 1992 from MOE and MOF data.
- not available
33. Technical education enrolls over 15,000 students per year attended by about 1,600 teachers. Until 1990 it was managed by the MOE, and now operates under INATEC's management. It operates at two levels: (a) upper-secondary level, aimed at individuals who have completed 9 years of basic education; and (b) basic level, lasting 3 years and aimed for primary school graduates that desire to enter the job market as lower level technicians or continue for another 3 years training. The vocational and technical education and training systems appear to be beset with serious problems regarding their: (a) ability to respond to the education and training demands of the private sector due to past emphasis in the provision of skills for the public sector; (b) low quality of services provided; (c) inadequate curricula and training methods; (d) high costs of operation; and (e) widespread underutilization.

34. The upper-secondary vocational level offers three possible tracks: (a) agricultural education which consists of a variety of programs none of which reaches a large number of students; (b) industrial education which is costly but guarantees graduates in high-demand areas a similar monthly wage as tertiary education graduates; and (c) commercial education which enrolls by far the largest number of vocational-oriented students in both private and public institutions, mainly in the areas bookkeeping and secretarial work. About 10 percent of agricultural enrollees, and 30 percent of the industrial ones continue on to additional studies.

35. The MOE estimates that about 75 percent of the teaching force is unqualified, having no training above the vocational level they teach. Others are skilled and conscientious, but few have experience working in the private sector where their graduates will probably work. Teaching turnover is reportedly high due mainly to low salaries. Financial constraints have reduced pedagogical supervision, curriculum development, school maintenance, and furnishing of equipment and instructional devices. The technical education system maintains almost no linkages with local employers, and is currently largely dependent on external financing sources. This type of education is reportedly characterized by a high drop-out rate and a significant time lag before graduates enter the job market. However, there are no tracer studies to ascertain the external efficiency of technical education in Nicaragua.

36. The vocational training system, formerly operated by SINACAP, provides skill upgrading training courses and job-entry skills to literates in five centers. The training system developed over 3,000 courses for 45,000 people in the 1986-1988 period, of which 73 percent were workers already in the work force. SINACAP, transferred in 1990 from the MOE to the Ministry of Labor, has to clear its training program with INATEC, which is in charge of vocational education policies. Data on the costs of the system are unavailable, but SINACAP's total operating costs must be high since it continues to support a large administrative staff associated with its previous scale of operations. The ratio of administrators and support staff per instructor (2.4) is much higher than other countries in the region. The 1993 enrollment was close to 1,200 students, with a retention rate estimated at 83 percent. As in the case of upper-secondary vocational education, there are no tracer studies to ascertain the external efficiency of the vocational training system.

---

1/ For example Honduras (0.4) and Colombia (0.6).
## SOCIAL SECTOR STRATEGY AND COORDINATION

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>POLICY DIRECTION</th>
<th>RECOMMENDED ACTIONS</th>
</tr>
</thead>
</table>
| Need to alleviate the worst effects of poverty and to improve effectiveness and overall efficiency of social services | Prepare a Social Sector Policy (SSP) document aiming to: 1. Contribute toward alleviation of poverty in the short-term; 2. Lay foundation for poverty reduction through development of human resource base over the medium- and long-term | 1. GON to prepare SSP, to be based on three elements:  
   (a) Explicitly set within the framework of overall macroeconomic policy;  
   (b) Targeting the most vulnerable groups;  
   (c) Articulated with programs aimed at improving access of the poor to basic social services (i.e., health, education, nutrition, water and sanitation).  
2. GON disseminates its SSP document to:  
   (a) Population in general;  
   (b) Government agencies;  
   (c) Donor community.  
                                                                 |                                                                                  |                                                                                                                                                      |
| Need to implement institutional and policy reforms in the social sector | Develop sectoral policies and strategies articulated to previous issues           | 1. GON and social sector institutions to prepare and implement sectoral policies and strategies for the short- and medium- to long-term to ensure they align to issue (1) above;  
2. GON and implementing agencies to agree on indicators to monitor performance. |
| Need to develop GON coordination and monitoring capacity              | Improve institutional/policy analysis capability                                   | 1. Implementation of Living Standards Measurement Survey (LSMS) and other institution-based monitoring systems, as relevant, to evaluate key social indicators;  
2. GON to assign to INEC responsibility of implementing LSMS.          |                                                                                             |                                                                                             |
|                                                                      | Develop capability at the national level to coordinate and monitor SSP            | 1. GON to organize unit responsible for overall SSP coordination and monitoring, at the Presidency level, including safety net programs and line ministries;  
2. GON to strengthen MOF capacity to improve budgeting and financial management in social sector, including:  
   (a) GON budget;  
   (b) Donor resources.  
3. GON uses SSP document to coordinate donor efforts and:  
   (a) Sanction and enforce a policy to channel all donor resources to supports its strategy through MOF & MCE;  
   (b) Develop mechanisms to monitor projects financed by foreign aid. |                                                                                             |                                                                                             |
|                                                                      |                                                                                  | 1. GON continues to monitor, evaluate and redefine social sector priority programs according to performance of the economy and SSP in the short-term. |                                                                                             |
## SAFETY NET PROGRAMS

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>POLICY DIRECTION</th>
<th>RECOMMENDED ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragmented Safety Net Programs</td>
<td>Develop/strengthen programs to protect the poor in the short-term</td>
<td>1. Support the FISE; 2. Assess other existing or proposed programs in terms of: (a) All three basic SSP elements; (b) Cost-effectiveness; (c) Financing of these programs; (d) Institutional capacity of implementing agencies; 3. Select small number of initiatives focusing on priority interventions, ensuring their: (a) Complementarity; (b) Defined institutional setups and management capacity; (c) Transparent resource allocation and accountability rules.</td>
</tr>
</tbody>
</table>

## POPULATION

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>POLICY DIRECTION</th>
<th>RECOMMENDED ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Despite highest rate of population growth in Latin America, health system provides insufficient family planning services (FPS)</td>
<td>Improve health system’s capacity to respond to unmet demand for FPS</td>
<td>1. Formulation of policies and programs by public and private sector to promote family planning; 2. Development of an Action Program at the MOH for: (a) Expansion of family planning services at MOH facilities; (b) Development of Information, Education, and Communication (IEC) activities for the promotion of birth spacing; (c) Development of high-risk pregnancy program; (d) Development of sex education program; 3. Implementation of Action Program.</td>
</tr>
<tr>
<td>Development capability at the national level to promote population programs</td>
<td>1. Assign unit responsible for follow-up of Action Program and promote and encourage alternative family welfare service delivery methods.</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Short-term initiatives are listed first; long-term initiatives are indicated by shaded vertical bar. Short-term and long-term initiatives are also separated by dark horizontal line.*
### NUTRITION

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>POLICY DIRECTION</th>
<th>RECOMMENDED ACTIONS</th>
</tr>
</thead>
</table>
| High prevalence of child malnutrition and low birthweight | Development of a coherent nutrition policy | 1. GON to draft and adopt nutrition policy including:  
(a) Targeting the most vulnerable groups (children 0-5, pregnant and lactating mothers);  
(b) Evaluation of existing and proposed programs in terms of:  
  (i) Targeting and coverage;  
  (ii) Cost-effectiveness;  
  (iii) Implementation capacity;  
    This review should include inter alia: UNICEF-WFP-INSSBI “child care centers” and  
    “servicios infantiles” programs, RUTA “food stamp” programs, and PASO programs;  
(c) Select a limited number of interventions for support.  
| For nutrition programs for population groups most at risk | | 1. GON to mobilize domestic and foreign resources for selected interventions;  
2. GON to assign unit responsible for coordination of nutrition interventions;  
3. MOH to develop and implement breast-feeding program;  
4. MOH to strengthen and integrate nutrition activities within PHC;  
5. MOH to develop and implement program promoting adequate weaning practices. |
| High prevalence of malnutrition among school-age children | Reduce school absenteeism, repetition and dropout | 1. Develop and implement targeted school feeding program with local products and  
community/private sector management. |
| Food insecurity | Due consideration to food security issues | 1. Coordinating unit and GON to address food security issues in the context of economic and  
alimentary macro policies. |

**Note:** Short-term initiatives are listed first; long-term initiatives are indicated by shaded vertical bar. 
Short-term and long-term initiatives are also separated by dark horizontal line.
<table>
<thead>
<tr>
<th>ISSUE</th>
<th>POLICY DIRECTION</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of clearly established priority and strategy on primary health care (PHC)</td>
<td>Strengthen PHC programs</td>
<td>1. MOH to prepare and adopt a PHC policy and operational strategy for implementation;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Adopt policy of channeling most external financing to support (1) immediately preceding;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Formally commit to increase PHC resource allocation and develop an action plan to be monitored by the GON.</td>
</tr>
<tr>
<td>Insufficient emphasis on promotion and disease prevention</td>
<td>Define priority programs and strengthen health promotion and disease prevention</td>
<td>1. Prepare and adopt action plan including:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a) Adopting its education campaign for cholera prevention as a regular and permanent activity of MOH PHC program;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Develop Information, Education and Communication (IEC) program for (inter alia):</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(i) Health and nutrition education;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(ii) Promotion of breast-feeding;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(iii) Adequate weaning practices;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(iv) Birth spacing;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(v) Responsible parenthood.</td>
</tr>
<tr>
<td>Improve PHC delivery services with preventive emphasis</td>
<td></td>
<td>1. Develop action plan to increase coverage of prenatal, postnatal and well-baby care emphasizing:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a) Operational integration of vertical programs;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Delegation of preventive actions from doctors to nurses and auxiliary nurses;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c) Increase capability of PHC system to respond adequately to demand (equipment, materials, training and personnel);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(d) Systematic supervision (norms, procedures, on-the-job training).</td>
</tr>
<tr>
<td>Redirect community participation from short-run mass campaigns to routine preventive care</td>
<td></td>
<td>1. Provision of training to parteras empíricas on safe delivery, detection and referral of high-risk pregnancies;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Reorientation of the role of brigadistas and training toward preventive community health activities (i.e., immunization, water and sanitation, ORS, growth-monitoring, nutrition and health education, etc.).</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td>Insufficient access to water and sanitation</td>
<td>Define sectoral strategy for water and sanitation</td>
<td>1. GON to prepare a sectoral strategy and define adequate institutional framework spelling out the role of: (a) INAA and DAR; (b) MOH; (c) Municipalities; (d) Communities; 2. Develop and adopt action plan including: (a) Mobilization of resources for rural water and sanitation in the GON’s investment program; (b) MOH, FISE, and DAR to enforce inclusion of education and maintenance components in all water and sanitation projects.</td>
</tr>
<tr>
<td>Poor condition of facilities and equipment for PHC programs</td>
<td>Give priority to rehabilitation of PHC facilities</td>
<td>1. Survey and identify condition of health network and prepare rehabilitation plan; 2. Prepare projects for FISE financing to rehabilitate and equip PHC facilities.</td>
</tr>
<tr>
<td>Lack of data for policy making, planning, and management purposes</td>
<td>Develop basic data management information system (MIS)</td>
<td>1. Review evaluation of SISNICA underway with assistance of PAHO and the Spanish government; 2. MOH, assisted by consultants, to develop one integrated and decentralized MIS including basic information needed for management of, among others, population statistics, services data, personnel, materials and supplies, and financial statistics.</td>
</tr>
<tr>
<td>Inappropriate staffing patterns</td>
<td>Manpower reorganization policies</td>
<td>1. Strengthen the personnel function in the MOH: (a) Based on results of personnel and facilities inventory studies (now underway), develop a staff redeployment action plan, whose objective would be to: (i) Give priority to staffing PHC services; (ii) Be phased; (iii) Include training for staff; (b) Revise staffing patterns in hospitals to eliminate redundancies; (c) Initiate development of personnel data bank; (d) Initiate development of job descriptions and career paths; (e) Develop a 1-, 3-, 5-year manpower development plan integrating training needs prioritized according to sectoral policies; 2. Restrict entry of general physicians into specialties; 3. Repeal hiring agreement of medical school graduates.</td>
</tr>
</tbody>
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| Poor management of pharmaceuticals and medical supplies (P&MS) | Develop a coherent pharmaceuticals and medical supplies policy for the public health system                                                                                                                        | 1. GON (MOH, MOF, MEDE, Central Bank) to formally commit to implement a P&MS policy including:  
   (a) Development of adequate regulatory framework for the public sector;  
   (b) Separate of regulatory from procurement functions in the management of P&MS for the public sector.                                                                                       |
| Waste of resources and chronic shortage of drugs and medical supplies in the public sector | Develop an adequate pharmaceuticals and medical supplies system with emphasis on generic products and rational utilization of drugs                                                                                   | 1. MOH, assisted by consultants, should:  
   (a) Carry out study to clearly define:  
      (i) Respective functions, organization, staffing, and procedures of CIPS and DAM;  
      (ii) Make specific recommendations (including investment and operating costs) for:  
         [a] Organization of procurement;  
         [b] Warehousing (central and local levels);  
         [c] Distribution system and logistical arrangements;  
   (b) Develop a down-top programming system for each level of services accompanied by inventory procedures at MOH facilities.                                                                                   |
| Overconsumption of high-cost and inappropriate drugs | Control expenditures and promote rational use of drugs                                                                                                                                                              | 1. MOH, assisted by consultants, should:  
   (a) Develop training program for health providers and pharmacists in prescription practices;  
   (b) Develop IEC campaigns for the population to reduce overconsumption;  
   (c) Revise the essential drugs list by level of care;  
   (d) MOH and MEDE develop adequate regulation to promote rational use of generic products.                                                                                             |
| Presence in the market of low-quality, unsafe products | Safeguard quality of consumer products                                                                                                                                                                            | 1. MOH should:  
   (a) Enforce registration requirements for importers and local producers;  
   (b) Strengthen the Registry Office;  
   (c) Strengthen quality control capacity at Quality Control Laboratory and University of León Labs;  
   (d) Support implementation of good manufacturing practices for local producers.                                                                                                               |

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| Constraints to the development of local pharmaceutical industry | Remove constraints to local industry and support investments | 1. MEDE should:  
(a) Revise current tariffs and mark-ups for pharmaceutical products and inputs;  
(b) Define adequate policies to support investments in a competitive local industry. |
| Need to define implementation of SILAIS | Operational strategy for SILAIS | 1. Clearly define SILAIS roles in jurisdiction at each level of care;  
2. Define functions of central level and mechanisms by which SILAIS will implement sectoral policies;  
3. Spell out implementation strategy over time, with clearly dated targets, including the following needs:  
(a) Personnel;  
(b) Financial resources;  
(c) Supervision;  
(d) Training;  
4. GON & MOH define budgetary authority to be divested to SILAIS. |
| Need to improve financial management and allocation of resources | Improve allocation and efficient use of financial resources | 1. MOH to define annual targets to increase share of domestic budget for PHC;  
2. GON & MOH to agree and negotiate with donors on channelling foreign resources to PHC;  
3. GON & MOH to establish monitoring mechanism for ¶1 and ¶2 immediately preceding;  
4. MOH & MOF to revise existing budgetary process to:  
(a) Introduce cost-accounting system;  
(b) Improve financial reporting;  
(c) Reflect allocation by programs;  
(d) Include external support in MOH budget;  
(e) Estimate recurrent costs implications of all investments;  
(f) Draft, 1-, 3-, and 5-year allocation plan. |
| Improve efficiency at the hospital level | Improve efficiency at the hospital level | 1. Develop capability for hospital management:  
(a) Implement PRRC (producción, recursos, rendimientos y costos) in all hospitals, including training for manager and personnel in its use;  
(b) Develop financial incentives for cost-containment;  
(c) Develop financial incentives to improve manpower productivity;  
(d) Rationalization referral procedures. |

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| Excessive GON burden for health care financing | Diversity health financing sources      | 1. Develop and implement cost-recovery mechanisms for selected services and drugs, including:  
(a) Allowing partial retention of recovered costs by facilities;  
(b) Procedures for utilization of funds;  
2. Carry out study on out-of-pocket expenditures, willingness and ability to pay for health care;  
3. Implement study to analyze potential areas for privatization of services;  
4. Implement pilot program for:  
(a) Rental of space and equipment to physicians to attend private patients;  
(b) Pensionados. |
| Sustain short-term policies on PHC         |                                         | 1. GON & MOH to evaluate performance of short-term programs and redefine based on epidemiological needs assessment and resource constraints;  
2. Expand coverage of PHC services to underserved population groups. |
| MOH human resources development plan      |                                         | 1. Develop a mid-term human resources development plan;  
2. Continue implementation and monitoring of short-term actions;  
3. Prepare and introduce necessary legal reforms. |
| Improve MIS capabilities                  |                                         | 1. Evaluate implementation of strengthened MIS and improve as needed. |
| Diversify health financing                |                                         | 1. Develop health insurance program, including review of INSSBI role;  
2. Encourage provision by the non-government sector of health services for which households are willing to pay. |

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<tr>
<td>Lack of an Education sector policy impedes development of a coherent sectoral strategy</td>
<td>Definition of Education sector policy</td>
<td>1. MOE to draft and approve education sector policies, strategies, and priorities identifying and addressing:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a) The most vulnerable groups;</td>
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<td></td>
<td></td>
<td>(b) Low efficiency (repetition and dropout) at the primary level;</td>
</tr>
<tr>
<td>Inadequate orientation of preschool service</td>
<td>Reorientation and better targeting of current preschool programs</td>
<td>1. Assessment of targeting and content of current programs;</td>
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<tr>
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<td></td>
<td>2. Improve quality of preschool programs by:</td>
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<tr>
<td></td>
<td></td>
<td>(a) Establishing supervisory &amp; training systems to support paraprofessionals;</td>
</tr>
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<td></td>
<td>(b) Developing instructional materials;</td>
</tr>
<tr>
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<td></td>
<td>(c) Redirecting the day-care nature of some centers to a more educational orientation.</td>
</tr>
<tr>
<td>High repetition and dropout rates in primary school</td>
<td>Reduce repetition and dropout rates in the first two grades</td>
<td>1. Assign the best teachers to the 1st &amp; 2nd grades;</td>
</tr>
<tr>
<td></td>
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<td>2. Keep the same teacher for the same students through first two grades;</td>
</tr>
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<td>3. Automatically pass students after 1st grade, with review after 2nd grade.</td>
</tr>
<tr>
<td>Low technical efficiency at the primary level</td>
<td>Increase complete schools and reduce multi-grade teaching (as much as possible)</td>
<td>1. Assign additional teachers to these schools;</td>
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<tr>
<td></td>
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<td>2. Establish double-shift wherever feasible;</td>
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<tr>
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<td></td>
<td>3. Include multigrade teaching in teacher training programs.</td>
</tr>
<tr>
<td>Low quality of teachers</td>
<td>Improve teaching practice</td>
<td>1. Tie salary incentives to performance;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Promote in-service training using local experienced teachers;</td>
</tr>
<tr>
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<td></td>
<td>3. Develop pre-service training policy and corresponding incentive system;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Revitalize curriculum of all training programs, including distance education* alternatives;</td>
</tr>
<tr>
<td>Poor condition of school facilities</td>
<td>Rehabilitation of schools, with priority to primary schools</td>
<td>1. Implement &quot;school mapping&quot; study and prepare a primary school rehabilitation program;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Prepare projects for FISE financing to rehabilitate and furnish primary schools.</td>
</tr>
<tr>
<td>Lack of learning materials</td>
<td>Update curricula and supply textbooks</td>
<td>1. MOE should develop a 10-15 year textbook and curriculum improvement policy, with emphasis on critical thinking and problem-solving skills.</td>
</tr>
<tr>
<td>Inadequate skills mix and distribution of teachers</td>
<td>Teacher reorganization policies</td>
<td>1. Restructure occupational and educational choices of teacher, specifically the <em>empiricos</em>;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Create salary and career incentives for accredited teachers;</td>
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<td></td>
<td>3. Require entrance exam for teachers-to-be.</td>
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| Lack of timely, reliable and relevant     | Develop basic data management information system (MIS) | 1. Design a basic MIS to gather, classify and publish data measuring:  
   educational data                                                                                                                   
                                                                                                                                   |
| Need to improve financial allocation and  | Improve allocation and efficient use of financial     | 1. MOE to define annual targets to increase share of domestic budget for primary education;  
   management of resources                                                        |                                                                                                                                         |
| Large GON burden for education financing | Diversity education financing sources                  | 2. GON & MOE to agree and negotiate with donors on channeling donor resources to primary                                                        | 3. GON & MOE to establish monitoring mechanism for (1) & (2) immediately preceding;  |
|                                           |                                                       | and pre-primary education;                                                                                                                   | 4. MOE & MOF to revise existing budgetary process to:  |
|                                           |                                                       | 3. GON & MOE to agree and negotiate with donors on channeling donor resources to primary                                                        |   (a) Introduce cost-accounting system;  |
|                                           |                                                       | and pre-primary education;                                                                                                                   |   (b) Improve financial reporting;  |
|                                           |                                                       | 4. MOE & MOF to revise existing budgetary process to:  |
|                                           |                                                       |   (c) Reflect allocation by program;                                                                                                                   |   (d) Include external support in MOE budget;  |
|                                           |                                                       |   (e) Estimate recurrent cost implications of all investments;                                                                            |   (f) Draft 1-, 3-, and 5-year allocation plan;  |
|                                           |                                                       | 5. MOE to advance its policy to reduce private school subsidies at the secondary level and target primary level subsidies to poorest groups;  |                                                                                                                                         |
|                                           |                                                       | 6. MOE & MOF to revise Ley de Carrera Docente to:                                                                                          |                                                                                                                                         |
|                                           |                                                       |   (a) Defer retirement;                                                                                                                    |                                                                                                                                         |
|                                           |                                                       |   (b) Tie promotion more to merit and less to seniority;                                                                                   |                                                                                                                                         |
|                                           |                                                       |   (c) Evaluate and accredit teachers based on general examinations as accreditation vehicle.                                                |                                                                                                                                         |
|                                           |                                                       | 1. Revise policy on utilization of student fees not to devote them entirely to teacher salaries but to:                                                                                                     | 2. Promote private provision at the secondary and higher education levels by:                                                                 |
|                                           |                                                       |   (a) Teacher salaries, and                                                                                                                  |   (a) Deregulating licenses and fees;                                                                                                    |
|                                           |                                                       |   (b) Critical school inputs (teaching materials, maintenance, etc.) to be managed at the local level;                                                                                                          |   (b) Supervising performance of private schools;                                                                                           |
|                                           |                                                       |   (c) Monitor impact of voluntary fees at the primary level on actual access to schooling;                                               | 3. Mobilize additional foreign aid, particularly to fund improvements at the pre-primary level.                                               |

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<tr>
<td>Undefined decentralization scheme</td>
<td>Define basic features of decentralization model</td>
<td>1. Define basic functions of central, local, and school levels;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Develop implementation strategy (with resources, personnel, supervision, and training needs);</td>
</tr>
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<td></td>
<td></td>
<td>3. Develop a timetable for implementation.</td>
</tr>
<tr>
<td>Inequitable distribution of sectoral</td>
<td>Shift public subsidies from higher education</td>
<td>1. Establish requirement that higher education institutions report annually on:</td>
</tr>
<tr>
<td>resources</td>
<td>to primary education</td>
<td>(a) Use of public funds;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Agreed set of efficiency indicators;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Analysis of internal and external efficiency of higher education institutions;</td>
</tr>
<tr>
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<td></td>
<td>3. Reduce subsidies to higher education and introduce student fees; use savings to increase allocations</td>
</tr>
<tr>
<td></td>
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<td>for primary education.</td>
</tr>
<tr>
<td>Need to improve MIS</td>
<td>Further development of MIS</td>
<td>1. Expand MIS to cover:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a) Cognitive achievement;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) Programming and budgeting;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c) Financial expenditures.</td>
</tr>
<tr>
<td>Need to improve equity of basic</td>
<td>Improve coverage of services for</td>
<td>1. Increase coverage of pre-school and primary services to rural and poor urban areas;</td>
</tr>
<tr>
<td>services provision</td>
<td>disadvantaged population groups</td>
<td>2. Provide bilingual education to minority groups;</td>
</tr>
<tr>
<td>Need to strengthen decentralization</td>
<td>Deepen decentralization</td>
<td>1. Evaluate decentralization process initiated in the short-term;</td>
</tr>
<tr>
<td>process</td>
<td></td>
<td>2. Divest additional functions to the local and school levels.</td>
</tr>
<tr>
<td>Need to improve quality</td>
<td>Improve quality of learning materials</td>
<td>1. Introduce audio-visual materials; develop resource centers;</td>
</tr>
<tr>
<td></td>
<td>Improve teaching practices</td>
<td>2. Promote adult education as an adjunct program to pedagogical education.</td>
</tr>
<tr>
<td></td>
<td>(teachers other than those targeted short-term)</td>
<td></td>
</tr>
<tr>
<td>Need to deepen legal reforms</td>
<td>Implement necessary legal reforms</td>
<td>1. Abolish existing in-service &quot;professionalization&quot; training;</td>
</tr>
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<td></td>
<td></td>
<td>2. Repeal and/or modify the following laws to reflect newly defined policies:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a) Ley de Autonomia de la Educacion Superior;</td>
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<tr>
<td></td>
<td></td>
<td>(b) Ley de Carrera Docente.</td>
</tr>
</tbody>
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Mr. Lewis T. Preston
President
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Dear Mr. Preston:

1. This letter summarizes the broad discussions of the Government of Nicaragua's social sector strategy for the short term (1992-1995) and the medium term (1992-1998). Using this letter as a point of departure, the Government has also been formulating a comprehensive policy and strategy document detailing priority programs and measures to be pursued over the short and medium term, and including an implementation plan covering operational targets, resource allocations, and implementation arrangements. A draft of this document will be submitted to the International Development Association (IDA) by May 31, 1993. To complete this document, further preparation and extensive discussions within the Administration will be carried out (as described in paras. 11 and 23), as well as continuing dialogue with IDA and other donors. Given Nicaragua's anticipated heavy reliance on donor financing for social sector programs in the short and medium terms, it is the government's intention that the policy and strategy document become the central instrument for coordination of donor efforts in the social sector.

Background

2. When assuming office in April 1990, Nicaragua's current Administration inherited an economy on the brink of collapse. During the 1980s, the combination of inadequate economic policies and a civil war resulted in an extremely severe deterioration in the economic situation of Nicaragua. Per capita GNP was estimated at less than US$400 in 1990, or one-third of its 1977 level in real terms, and accumulated foreign debt was over five times GDP, the highest debt ratio in Latin America. Starting in March 1991, the Government launched an economic stabilization program to eliminate hyperinflation, arrest the decline in GDP, and strengthen the balance of payments through tight fiscal and monetary policies, which IDA has supported through an Economic Recovery Credit.

3. While redressing the economy has been its most pressing task, the Government also recognizes the urgent need to improve social conditions which are a cause of serious concern. Poverty is overwhelming, with 23% of the population living in extreme poverty and 16% in critical conditions. Social indicators are among the lowest in Latin America: infant mortality was 72/1,000 live births in 1990, caused mostly by diarrhoea and acute respiratory infections, maternal mortality is 159/100,000, total fertility averages 6
children per woman of childbearing age, and 22% of children experience moderate or severe malnutrition. Poor water and sanitation services render the population unprotected against water-borne diseases, more so in the rural areas where water coverage is only 18% and sanitation coverage only 9%. Over 20% of the population is illiterate, currently repetition and dropout between first and second grade is 45%, and only 22% of the children entering school complete the primary cycle. The housing deficit is 450,000 units, and growing at a rate of 6% per annum.

4. These results are not mainly the consequence of inadequate budgetary provisions for the social sector. Social spending actually increased from 3.7% of GDP in 1979 to 9.1% in 1991, a share higher than in most Central American countries, and much higher than those typical for an economy with Nicaragua's GDP level. Rather, there are major inefficiencies in the sector resulting from the lack of a coherent government strategy promoting sectoral objectives and priorities consistent with the country's needs, low institutional capacity in the line ministries, inefficient and inequitable allocation of resources, which result in an inadequate delivery of quality social services.

5. Restoring economic growth is essential to increase per capita income, but we must take measures to improve productivity and alleviate poverty so as to improve equitable access to economic opportunities and the social services that will preserve and develop the country's most precious asset, its human capital. This calls for the design and implementation of a coherent and comprehensive social sector strategy that is consistent with the overall economic program. We have already made some strides in that direction. The document presented to the Consultative Group Meeting in March, 1992, represents a first step in the evolution of the Government's two-pronged social sector strategy. The first element of the strategy emphasizes reforms in the line ministries to improve the provision of basic services which benefit the poor most. However, while the reform of the sectoral institutions is of the utmost importance because of its lasting effects on the structure and efficiency of services delivery, this is a far-reaching and complex process. As it will take time for line ministries to implement these reform measures, it is essential that the Government also undertake targeted poverty alleviation programs for the most vulnerable groups in the short-term.


6. For the short-term (1992-1995), the Government attaches high priority to the following areas: support of groups directly affected by the war, reconstruction of social and economic infrastructure, productive employment creation, and targeted nutrition programs. The Government intends to concentrate its efforts on a small number of key programs that: (a) are consistent with the Government's overall macroeconomic program and objectives for the social sector, focusing on priority interventions; (b) target the most vulnerable groups (women and children); and (c) have adequate institutional setups and management capacities with transparent resource allocation and accountability rules.

7. The most important immediate instruments of this Administration to implement these priorities are the National Reconciliation and Rehabilitation Program (PPRN) and the Social Investment Fund (FISE). In the medium term, the Government will also consider the establishment of an ongoing safety net program, Attention to Critical Poverty (APC). It's APC would target transfers to those groups among the poor who, for reasons of age, illness, etc., are unable to benefit from the other elements of the Government's strategy.

8. Although the civil war has ended, there are still many Nicaraguans directly affected by the war who have been uprooted from social and productive lives in their communities. It is thus essential for the Government to...
intervene by relocating and supporting the reinsertion of these populations to civilian society. Otherwise, violence is likely to remain as a prominent feature of Nicaraguan life. Since in the past there have been overlaps and lack of coordination between programs for war affected populations, in 1992, the Government created the PRRN with the main objective to support vulnerable population groups in regions affected by the war. The PRRN is administered by the Ministry of the Presidency (MIPRES).

9. The other important program initiated by this Government is the FISE, which was created on November 21, 1990 as an autonomous public institution attached to the Presidency. We believe that FISE has started to play a major role in alleviating poverty. FISE is an agency designed to finance projects in social and economic infrastructure to be executed by private contractors, NGOs or Government agencies in all the country's municipalities with a targeting system that assigns more resources to poorer municipalities. The institution has been designed to be independently managed and fully transparent. It operates in close collaboration with line ministries and agencies and ensures that the projects it finances are in accordance with the policies and priorities of the social sector ministries. Despite the Government's tight fiscal situation, we have assigned priority to FISE with a budgetary allocation of US$10 million in 1990 and 1991, which was complemented by donor resources. After 18 months of operations, FISE has proved to be an efficient institution. As of June 30, 1992, it had approved 549 subprojects with a total cost of US$21 million, reaching 94% of the country's municipalities, and creating over 73,500 man/months of employment. Based on this favorable experience, the Government is committed to expanding FISE's operations, for which it will require donor support.

10. The Government also attaches great importance to improving nutrition through several programs. The Government intends to review them and to develop a coherent nutrition policy and select a limited but well-targeted number of nutrition interventions for support by both the Government and donor agencies. The Ministry of Health's (MOH) nutrition activities will be also strengthened within its primary health care services, including promotion of breast-feeding and adequate weaning practices, as well as the nutrition activities in the Ministry of Education's (MOE) pre-primary and primary education centers.

11. In the next five months, the Vice Minister of Social Affairs, in close collaboration with the executive directors of those agencies, the Ministry of Finance (MIFIN) and the Ministry of External Cooperation (MCE), will carry out a review of existing safety-net programs in terms of their consistency with overall economic programs and social sector objectives, targeting, coverage, costs (both administrative and programmatic), resource allocations and accountability rules, and effectiveness of implementation. Based on this review, an assessment of the performance of existing programs will be presented to the Government Cabinet by March 15, 1993. This evaluation will indicate strengths and weaknesses of those programs, recommend those that should remain priorities for the Government, and what should be their precise objectives and roles within the Government's social sector strategy. Based on the criteria referred to in para. 6, the Cabinet will review the performance assessment and select those initiatives that will be supported in the next three years, by April 30, 1993. The priority safety-net programs, including an implementation plan covering operational targets, resource allocations, and implementation arrangements will be part of the draft policy and strategy document the Government will submit to IDA by May 31, 1993.


12. The Government is conscious that improved basic health and education are essential for the development of the social conditions necessary to improve
the standards of living of the population. Based on a review of the country's epidemiological and educational profiles, and the main issues in the delivery of social services, the Government has decided to focus its efforts on improving the delivery of basic social services, assigning the highest priority to primary health care (PHC) and primary education. To translate these objectives into actual practice, the Government recognizes the need to implement major policy reforms and institutional strengthening measures in the line ministries to improve efficiency of resource use and target expenditures more directly to the poor. The Government's broad directions for the health and education sector for the period 1992-1998 are presented below.

Health Services

13. Despite the high priority and significant amount of resources assigned to the sector since 1980, the country's health status has failed to show commensurate improvement. This needs to be corrected. To that effect, three priority areas have been defined. First, we will strengthen the delivery of primary health care services. Second, we will improve the management of the health sector. Third, we will adjust sectoral financing arrangements to ensure a more efficient allocation of resources.

14. Regarding the improvement of primary health care services, the Government has already started to rehabilitate primary health facilities and equipment, deteriorated during the civil war and economic crisis. To help the Government prepare a rehabilitation program, a survey of PHC network reconstruction needs is already underway. Based on this survey, the MOH will prepare a complete rehabilitation program by March 31, 1993. In addition, the Government is committed to accentuate health promotion and disease prevention in PHC activities, especially in the areas of health education, prenatal care, vaccinations, birth spacing, nutrition, and water and sanitation. Key means to do so will be: (i) redirecting community participation from short-term mass campaigns to routine community-based health care activities; (ii) better integrating our PHC programs so that complementary activities such as immunizations, growth monitoring and nutrition education can be provided by the same staff, thus avoiding excessive personnel costs; and (iii) improving the referral system so that we can reduce the number of people bypassing the primary level and seeking basic services directly at hospitals.

15. Some key measures have been taken by the MOH to improve the management of the health sector. The health system has been reorganized into 19 district level structures (SILAIS) to integrate the health care system and allow for decentralized management control and autonomy. To improve efficiency and avoid bureaucratic duplications, the MOH has also eliminated the regional offices. To ensure that pharmaceutical and medical supplies are regularly available in all our facilities throughout the country, the Government has already prepared an assessment of major bottlenecks in the current system. The Government will prepare a plan to undertake a complete overhaul of the existing institutional arrangements at the Procurement Directorate at the Ministry of Health (DAM) and the Center for Supply of Pharmaceutical Products (CIPS), to control expenditures and develop rational use practices among both prescribers and consumers, safeguard quality of consumer products, and remove constraints to the development of the local pharmaceutical industry, by March 31, 1993. Additional priority measures, which will support PHC strengthening will be taken to: (i) review the excessive emphasis on expensive curative care by reorienting staffing patterns at the primary level towards non-physician personnel; and (ii) improve our management information and supervision systems so that we may obtain reliable data for policy-making, planning, and daily decision-making, and monitor the actual delivery of services.

16. The third priority area in health is the need to redefine financing arrangements for the sector to ensure that both budgetary funds and foreign assistance are targeted to priority programs, and that the Government can
sustain its level of commitment of local funds. The Government has already set out to channel some donor resources to the strengthening of PHC services in 12 of the 19 districts (SILAIS) of the country. The Government is also implementing a program to increase efficiency in the use of budgetary resources in 6 Managua hospitals, and ensure they respond properly to the cases referred to them from the primary level. For the next four years, starting with the 1993 budget, the Government will increase the budgetary share of PHC by 2% per annum within the overall health sector budget envelope, and improve MOH’s capacity for budgeting and financial management. By March 31, 1993, the Government will develop cost-recovery strategies by exploring the areas where user fees can be introduced for selected drugs and services. Further actions to be taken will be to develop incentives for private sector participation (i.e., commercial enterprises, NGOs, churches, and local communities) in the provision of health care services, and use resulting savings to increase the PHC budget.

Education Services

17. During the last decade, Nicaragua made major efforts to improve its population’s educational achievement. Although most children enroll in school, the educational gains have not been as great as expected. To improve the education system’s ability to attain a more sizeable impact in the educational attainment of the Nicaraguan population, three main areas need to be addressed. First, the Government needs to increase the internal efficiency of primary education services and improve their quality. Second the Government needs to strengthen the institutional capacity of the (MOE) so that it can improve its management practices. Third, the Government must allocate sectoral resources better.

18. The Government has started to take some measures to improve the efficiency and quality of primary education. With donors’ support, the Government has already introduced new textbooks for all core subjects in all primary and secondary schools, but we still need to develop a long-term textbook policy consistent with competence objectives for each level. Given the critical importance of the first two grades on student’s educational attainment, the Government has adopted a policy to assign the more experienced teachers to grades one and two. In addition, we are developing a program to train primary school teachers, especially those without accreditation.

Finally, the Government has already started to rehabilitate facilities, which have deteriorated during the civil war and economic crisis. A survey of school rehabilitation needs is scheduled to be launched before the end of October, 1992. Based on its results, the MOE will prepare, by July 1993, an investment program to bring the public schools network to functional standards. Additional measures to improve primary education will be to: (i) enhance the content and quality of preschool programs and target them towards rural areas where the most disadvantaged children live; (ii) increase the number of primary schools that offer all six grades in those communities with excess demand, thereby reducing early dropout for lack of schooling services; and (iii) institute automatic promotion of students from first to second grade to reduce wastage produced by repetition and dropout in these grades.

19. Second, we have taken some actions to improve the overall management of the education sector. The MOE has already set in motion a decentralization process that entails the reorganization of the previous structure. To improve efficiency and avoid bureaucratic duplications, the MOE has eliminated the regional offices, and initiated a policy to streamline non-teaching personnel, and add, as required, qualified technical staff at the central level. Under a donor-sponsored project, we are also in the process of implementing a management information system which will track student flows, personnel, and physical facilities; develop operational procedures for Ministry administration; provide management training to central level administrative staff, and strengthen staff at the municipal level both in administrative and...
pedagogical matters. Further actions contemplated by the Government are to: 
(i) review the teachers' incentive system to ensure that trained teachers 
remain in the school system by evaluating the existing legislation on 
retirement, wages and promotion (Ley de Carrera Docente); and (ii) explore new 
'incentive schemes such as tying salary increases to merit certification 
through exams and performance reviews.

20. Third, the Government recognizes the need to improve the intrasectoral 
allocation of resources. We have already taken some decisive steps in this 
direction by introducing voluntary fees at the primary level and compulsory 
fees at the secondary level which have been used to raise teacher salaries, 
targeting education subsidies to the poorest groups, and promoting private 
sector participation in the provision of educational services. For the next 
four years, also starting with the 1993 budget, the Government will increase 
the share of the domestic budget devoted to primary education by 3% per annum 
within the overall education budget envelope, and improve MOE's capacity for 
budgeting and financial management. By December 31, 1993, the MOE will 
mobilize additional foreign aid for its priority programs, particularly for 
pre-primary education, and prepare measures to use a portion of the resources 
generated by user fees at the primary and secondary levels to fund critically 
needed inputs such as materials, supervision, and maintenance. Additional 
measures will be to: (i) continue the promotion of private provision of 
educational services at the secondary and higher education levels by 
deregulating licenses and fees; and (ii) in the long term, restrict public 
subsidies to higher education, channeling the savings toward primary 
education.

Water and Sanitation

21. Inadequate coverage of water and sanitation services results in the 
consumption of poor quality water -- the main source of the high incidence of 
water-borne infectious diseases -- and limits the impact of health 
interventions. From 1980 to 1989, coverage in urban areas increased from 67% 
to 78%, but over the same period coverage in rural areas, where 40% of 
Nicaragua's population lives, increased only from 6% to 18%. The Government 
intends to define a water and sanitation strategy aiming at improving coverage 
and service quality, with emphasis on the needs of the rural areas and the 
poor, and on developing cost-recovery mechanisms and maintenance systems to 
ensure the sustainability of investments in the sector. Elements of this 
strategy will include: (i) increasing the coverage of water services in rural 
areas and delivery to marginal populations, with strengthened community 
participation in project design, implementation and maintenance; (ii) 
improving water quality through repairs and improvements to the delivery 
system; (iii) increasing the coverage of sanitation systems through massive 
latrine provision, and (iv) reinforcing the capacities of IPAA and the 
municipalities to undertake these activities. FISE will play a major role in 
the execution of these projects.

Family Planning

22. In an effort to reduce the considerable social stresses introduced by a 
population growth rate of 3.4% per annum, which is directly reflected in 
Nicaragua's high rates of maternal and child mortality, the Government will 
introduce intensive family planning education programs, and will improve the 
capacity of the health system (public and private) to respond to the unmet 
demand for family planning services and maternal and child health care. Such 
actions will provide women with greater control over reproductive preferences 
and will reduce maternal and child mortality.

23. Based on the Government's broad directions for the health and education 
sector for the period 1992-1998 presented above, further preparation and 
discussions within the Administration will be undertaken to develop the
sectoral strategies. To meet the schedule set out in para. 1, by October 30, 1992, MOH, MOE and MIPRES will organize working groups for health, education and water and sanitation, respectively. Each group will include representatives of MIFIN, and MIPRES, and the water and sanitation group will also include representatives of INAA and FISE. These working groups will be responsible to: (i) develop action plans for each of the priority areas put forth in this letter in their respective sector; (ii) determine what specific actions will be undertaken and what quantifiable results will be obtained; (iii) determine a timetable for implementation; (iv) establish who will be responsible for their implementation; (v) estimate, depending upon the proposed action, expected savings or additional costs implied; and (vi) propose a financing plan taking into consideration budget resources and donor financing. Each ministry will present to the Government Cabinet the sector plan including the parameters detailed above by March 31, 1993. The Economic Cabinet will review and adjust the sectoral plans to ensure consistency with the overall macroeconomic program and fiscal constraints, financing gaps, and sustainability by April 30, 1993. The sectoral plans, including an implementation plan covering operational targets, resource allocations, and implementation arrangements will be part of the policy and strategy document the Government will submit to IDA by May 31, 1993.

24. To ensure that foreign assistance is consistent with the Government's social sector strategy and properly coordinated, the Government will: (i) disseminate its social sector strategy document to the donors; (ii) sanction and enforce a policy to support its social sector strategy through the MIFIN and MCE; and (iii) develop mechanisms to effectively monitor implementation of programs financed under foreign aid.

Sincerely Yours,

Dr. Emilio Perreira A.
Minister of Finance
Government of Nicaragua