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Dominican Republic Poverty Assessment

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Weights and Measures

Metric System

Abbreviations and Acronyms

BARD	Banco Agrícola de la República Dominicana
CAS	Country Assistance Strategy
CAASD	State-owned utility in Santo Domingo (provides water and sanitation services)
CB	Central Bank
CDE	National Electricity Corporation
CDF	Country Development Framework
CEA	State Sugar Council
CESDEM	Centro de Estudios Sociales y Demográficos
CIANI	Centros Infantiles de Atención Integral
COAAROM	State-owned utility in La Romana (provides water and sanitation services)
CONANI	Consejo Nacional para la Niñez
CONAU	Consejo Nacional de Asuntos Urbanos
CORAAMOCA	State-owned utility in Moca (provides water and sanitation services)
CORAASAN	State-owned utility in Santiago (provides water and sanitation services)
CREP	Comisión de Reforma de la Empresa Pública
DASA	Despradel y Asociados
DIAPE	Dirección de Información, Análisis y Programación Estratégica de la Presidencia
DN	National District
ECD	Early Childhood Development
ENDESA	Encuesta Demográfica y de Salud
ENGH	Encuesta Nacional de Gastos e Ingresos de los Hogares
FEyD	Fundación Economía y Desarrollo
FTZ	Free Trade Zones
GDP	Gross Domestic Product
GNP	Gross National Product
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IDB	Inter-American Development Bank
IDDI	Dominican Institute of Integral Development
IDSS	Dominican Social Security Institute
IEPD	Instituto de Estudios de Población y Desarrollo
ILO	International Labor Organization
IMF	International Monetary Fund
INAPA	Instituto Nacional de Agua Potable y Alcantarillado
INESPRES	National Institute for Price Stabilization
INVI	Instituto Nacional de Vivienda
JAD	Junta Agroempresarial Dominicana
LAC	Latin America and the Caribbean
LSMS	Living Standards Measurement Survey
MECOVI	Programa para el Mejoramiento de las Encuestas y la Medición de las Condiciones de Vida en América Latina y el Caribe
NGO	Non-Government Organization
OMSA	Oficina Metropolitana de Servicios Autobuses
ONAPLAN	National Planning Office
ONAPRES	National Budget Office
ONE	National Statistical Office
PUCMM	Pontificia Universidad Católica Madre y Maestra
PNMRE	National State Modernization and Reform Program
PNUD	United Nations Development Program
PROALTO	Program "Alimentos para Todos"
PROMESE	Programa de Medicamentos Esenciales
SEEC	Secretaría de Estado de Educación
SESPAS	Secretariat of Public Health and Social Assistance
SBI	Banking Sector Superintendent
WTO	World Trade Organization

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PREFACE

This report is the outcome of a collaborative process by the Government of the Dominican Republic and the World Bank. The process involved continuous cooperation and several missions by World Bank staff and consultants to the DR. A first draft of the report was delivered to the Dominican authorities in February 2001. Several rounds of discussions were held during the rest of 2001. As a consequence, the report does not incorporate the economic developments that took place after February 2001. The report is available on the World Bank's website www.worldbank.org.

The Poverty Assessment was written by Philippe Auffret with inputs from Ms. Jacqueline Mora-Báez, and based on the background work prepared over a one year period by a team comprising Mr. Tarsicio Castañeda (Social Policies); Mr. Soumya Chattopadhyay, Ms. Marianne Fay, Mr. José Luis Guasch, and Ms. Rosanna Nitti (Urban Slums); Mr. Ramón López (Rural Poverty); Ms. Rita Mena (Institutions); Ms. Jacqueline Mora-Báez (Determinants of Poverty); Mr. Maurice Schiff (Macroeconomics and Rural Poverty); Mr. Marco Scuriatti (Haitian Migration); and Mr. Edgar Victoria Yeb (Social Policies). Social Assessments were prepared for this report by Padre Pedro Ruquoy of the *Centro Puente*; Mr. David Luther and Mr. Ramón Seiffe (among others) of the *Instituto Dominicano de Desarrollo Integral, Inc.* (IDDI); and Padre Hipólito Cabral of the *Parroquia San Juan Bautista, Arquidiócesis de Santo Domingo*. Mr. John Panzer and Mr. Norbert Schady were peer reviewers. Ms. Stephanie Larson supplied additional inputs and edited the report. Ms. Pilar Haché translated Volume I into Spanish. Ms. Aline Brito, Ms. Judith Santiago and Ms. Maria Ivanova Reyes also assisted in the preparation of the report.

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2. Causes of Poverty Reduction in the Dominican Republic: Growth and Income Distribution
3. The Anatomy of a Slum – the Ozama Barrios in Santo Domingo
4. Rural Poverty in the Dominican Republic: Market Failures, Governmental Failures and New Policies
5. The Effects of Macroeconomic Policies on Rural Poverty in the Dominican Republic
6. A Review of the Haitian Immigrant Population in the Dominican Republic
7. Managing Social Risks in the Dominican Republic
8. Institutional Aspects of Social Programs

DOMINICAN REPUBLIC POVERTY ASSESSMENT: POVERTY IN A HIGH-GROWTH ECONOMY (1986-2000)

EXECUTIVE SUMMARY

THE PROBLEMS OF POVERTY AND INEQUALITY...

1. Since the restoration of macroeconomic stability in 1991, the DR is in the midst of a remarkable period of economic growth. Average annual economic growth from 1992 to 1999 exceeded 6 percent. As a consequence, per-capita income steadily increased from US\$860 in 1991 to US\$1,910 in 1999.

2. Poverty has fallen in the 1990s. The percentage of individuals below the poverty line declined from 37 percent in 1986 to 34 percent in 1992 before sharply declining to 29 percent in 1998 (respective numbers are 9 percent, 7 percent and 5 percent for extreme poverty). These estimates increase somewhat once adjustments are made to correct for under-representation of Haitian migrants, many of whom live in the DR under ill-defined legal status, in the household survey samples. Economic growth has been the overarching force driving poverty reduction.

3. However, a (mainly rural) segment of the population (about 400,000 individuals) does not seem to have benefited from the remarkable post-1991 economic growth. Consequently, maintaining strong economic growth alone is not sufficient for poverty eradication. It needs to be accompanied by the implementation of well-targeted social policies.

4. The poverty rate in the DR in 1998 is lower than that of other countries adjusted for the level of economic development. The DR also compares favorably in terms of child malnutrition. However, the DR compares unfavorably on other poverty dimensions: illiteracy rates are about twice the Latin American and Caribbean (LAC) average, infant

mortality and mortality among children below 5 years are much higher than comparable countries.

5. The main characteristics of poverty in the DR are as follows:

- **Rural poverty bias.** The rural poverty rate is higher in relative terms (42 percent compared to that of urban poverty at 21 percent) and in absolute terms (1.3 million individuals compared to 1.0 million in urban areas). Extreme poverty is much higher in rural areas. Poverty is also more severe in rural areas.
- **Destitution in the bateyes.**¹ An estimated 600,000 individuals lived in bateyes in 1998. These communities are among the poorest in the country. Most bateyes lack basic infrastructure and services, while access to education and health care are limited. In addition, since the mid-1980s, the already marginal economic conditions of the bateyes have steadily worsened. The privatization of the CEA sugar mills at end-1999, although necessary, has not been accompanied by coping social measures. Working-aged men have left the bateyes while the most vulnerable groups (women, children and the elderly) have remained there, creating additional entrenched pockets of poverty
- **Urban vulnerability.** Access to basic services like garbage collection, potable water, sewerage and sanitation is very poor in crowded low-income urban settlements, and environmental problems plague these areas.

¹ The bateyes are communities located in or close to the sugar cane plantations on which they traditionally depended economically.

- **Vulnerability to natural disasters.** A large proportion of the poor live in flood-prone areas and are particularly vulnerable to the regular occurrence of natural disasters (like hurricanes), which regularly destroy means of production, including crops and housing.
- **Children poverty bias.** Poverty is higher among children. Almost forty percent of children under 5 live in poverty. A large number of children who have left the formal education system are particularly at-risk.
- **Gender poverty bias.** Female-headed households are more likely to be poor, particularly in urban areas. This could be attributed to the absence of adequate family planning programs and childcare centers.
- **Old age poverty bias.** The presence of elderly persons (over 65) is associated with poverty. This can be attributed to the absence of adequate safety nets or pension schemes which would provide the elderly with a minimum standard of living, including access to health services. This is expected to change as the result of the new social security system that will start implementation in 2002.
- **Informal sector.** Households who derive their income from the informal sector have a higher probability of being poor.

6. **There is a strong correlation between poverty and deficient health indicators.** The incidence of malnutrition mirrors the geographic patterns of poverty. About 20 percent of all children in the poorest regions suffer from malnutrition.

7. **There is also a strong correlation between poverty and education.** The higher the education attainment of the household head, the less likely the household is to be poor. Also, a mother's education significantly affects child nutritional status. As such, education is one of the most critical elements for escaping poverty.

8. **Poverty is strongly correlated with the absence of basic services.** Lack of access to

basic services (electricity, water, sanitation, etc.) is strongly related to the probability of being poor.

9. **Domestic transfers and external remittances play an important role in alleviating poverty.** Domestic transfers and international remittances alleviate the households' budget constraint and are correlated with better housing conditions, higher school attendance and less child labor, all of which tend to reduce poverty.

...REFLECT UNDERLYING DISPARITIES IN ASSETS,...

10. **The problems of poverty in the DR largely reflect underlying disparities in economic opportunities.** The distribution of key assets - labor, human capital, physical assets, basic infrastructure, and financial assets including pension and insurance - is highly unequal.

11. **Labor is the poor's most abundant asset.** However, the poor are constrained in their use of this key asset, as reflected in:

- **Lower labor force participation among the poor than the non-poor.** Sixty-one percent of the non-poor enter the labor force compared to 49 percent for the poor.
- **Lower labor force participation among women and particularly poor women.** This outcome could result from higher fertility rates among the poor, and hence larger domestic responsibilities combined with a general lack of childcare centers and access to other basic services.
- **Higher rates of unemployment among the poor, particularly in urban areas.** Unemployment among the poor is about twice that for the non-poor.
- **Higher rates of unemployment among youth (15-19 years of age),** particularly urban youths and young women, suggests

potential difficulties in the transition from school to work.

- **Potential underemployment among the poor.** The poor work fewer total hours than the non-poor, which most likely indicates underemployment and low productivity.
- **A strong correlation between poverty and employment within the informal sector.** Eighty percent of all poor workers are employed in the informal sector (primarily in agriculture, commerce, and services) compared to 60 percent for the workforce as a whole.

12. **Other traditionally vulnerable groups deserve special attention:**

- **Women** do not appear to suffer from systematic discrimination in terms of wages. However, a number of factors suggest that women have fewer employment opportunities than men.
- **Child labor** does not appear to be a widespread problem in the DR. However, child labor does prevent a number of mostly poor children from attending school. Also, child labor in prostitution and street vending is a major problem in tourist areas.

13. **Disparities in education are key causes of poverty and inequality in the DR.** Education is an important complement to labor, particularly in terms of enhancing its productivity and potential earnings. However, returns on education vary significantly by educational level, with primary and secondary school generating much lower returns than higher education (to which the poor have very limited access). Also, mothers' education significantly affects child nutritional status breaking the intergenerational poverty cycle. Disparities in educational stock (literacy and attainment), current coverage, internal efficiency and quality are all related to poverty.

- Although progress has been made in expanding literacy and increasing educational attainment over time,

substantial efforts are still required to increase the education of the population, particularly the poor. Illiteracy is high especially among the poor (27 percent) while 77 percent of the adult poor (above 18) have not completed primary education. This risks undermining the DR's ability to sustain strong economic growth.

- The main gaps in educational coverage include the virtual absence of public Early-Childhood Development (ECD) programs (for children between 6 months and 2 years) and public pre-school for children in the 3-4 age group while private programs remain largely unaffordable to the poor. Enrollment rates at the primary and particularly at the secondary level are low, especially for the poor and those from rural communities. Key obstacles to higher enrollment for the poor include: (i) direct costs of schooling (uniforms, books, etc.), (ii) low returns on primary and particularly secondary education, (iii) possibility that uneducated parents may not value education as much as educated parents, thereby perpetuating the poverty trap, (iv) quality issues and functional inefficiencies in the educational system, (v) lack of access to educational facilities at all levels in the bateyes and at the secondary level in poor peri-urban and remote rural communities.
- **Internal efficiency** is also lower among the poor, and particularly the rural poor, who tend to drop out more frequently than the non-poor. Also, high repetition rates for all children most likely indicate serious inefficiencies in the quality of classroom instruction.
- Lower **quality** education for the poor is evident from the lower returns on education for the poor and their higher drop out rates. The poor particularly in rural areas lack access to key quality-related inputs (teacher training, school supplies, etc.).

14. **Although health indicators have improved over the last decades, there remain large differences between the poor and non-**

poor. The poor have lower life expectancy and higher rates of infant mortality and malnutrition. They have less access to health care, and are less likely to seek medical treatment in case of illness. When seeking treatment the poor are more likely to use public services. However, public delivery of services has many shortcomings.

15. Lack of access to physical and financial assets - such as land and housing basic infrastructure, financial assets and insurance - is related to poverty. Physical assets contribute to income-generating potential by providing a base for productive activities. In addition, households can use property as collateral for leveraging credit and emergency income can also be generated through the sales of property or by borrowing against it. Finally, some properties can be used as tools for extending personal relationships, building trust and generating social capital.

16. The ability of households to use property as an asset depends largely on the security of tenure and the flexibility of the markets for land and housing. In the DR, the distribution of housing and land is highly unequal, as is access to the titling of available property.

- **Housing.** The poor tend to live in much lower quality housing than the non-poor. Moreover, the poor generally lack proof of ownership titles for their homes.
- **Land.** The distribution of land is highly unequal. Land ownership is extremely concentrated while the poor have very limited access to land.
- **Titling and income generation.** A high proportion of land is occupied without legal titles, which has negative effects on land productivity and also on other farmers' assets including access to credit from the formal sector. The problem of lack of titles also affects the rural non-farm enterprises.

17. Basic infrastructure services contribute to higher welfare and productivity.

In broad terms, potable water, local roads and electricity have been identified as priorities by rural communities; while potable water is the top priority in the bateyes; and garbage collection, potable water, and sewerage and sanitation are key for urban communities. Problems in the delivery of electricity is pervasive in the DR which particularly affects the poor who lack alternative sources. The use of firewood for cooking in poor rural areas raises serious concerns regarding deforestation, particularly along the Haitian border.

18. Financial assets - savings, credit, pension and insurance - allow households to smooth their consumption and invest for future earnings potential. The poor are much less able to save than the non-poor and are also restricted in their access to credit. In addition, public (subsidized) rural credit benefits poor farmers little. The absence of mitigation measures and their location in risk-prone areas leave the poor particularly vulnerable to catastrophic events. Pension coverage is extremely low among the poor who have to remain working and rely on relatives and neighbors for support. Finally, the poor are very vulnerable to accidents affecting the bread winner in the absence of workers' compensation schemes. The new social security system is expected to provide pension and accident coverage to the whole population, including the poor.

...A LEGACY OF POLICY AND INSTITUTIONAL SHORTCOMINGS,...

19. Disparities in the distribution of assets and economic opportunities reflect a legacy of policy and institutional shortcomings.

- The DR has a formal labor market characterized by a rigid legal and regulatory framework. However, despite rigid legislation, a large informal sector component let the labor market be flexible in practice.
- Though improving, the **public management of the State** still exhibits significant weaknesses including the absence of

adequate mechanisms and information systems to control expenditures, wages and personnel hiring decisions. The least organized and those in the weakest economic position are those most likely to suffer from such practices.

- Until the beginning of the 1990s, the DR's **trade policy** hinged on an import substitution strategy aimed at fostering the development of both domestic industry and agriculture by shielding them from external competition through high tariffs and quantitative restrictions. Protectionism more than proportionally benefited high income producers and taxed the poorest consumers to a larger extent. Also, there was no clear policy on how trade barriers were managed or on who benefited from the *significant corresponding rents*.

20. Since the restoration of macroeconomic stability in 1991, the Government has undertaken a number of fundamental reforms which have helped reduce the previous shortcomings:

- **Land distribution and land titling.** The Government has been distributing public land and recently engaged in a land titling program. However, most beneficiaries of the land reform so far have remained in conditions of poverty due to the absence of complementary support in terms of credit, technical assistance and basic infrastructure.
- **Trade reform.** Since the early 1990s, the DR has made substantial progress towards reducing trade barriers. In 1990, import tariffs were reduced while tariff exemptions, as well as non-tariff barriers, were largely eliminated. At end-2000, a new trade reform was implemented which further reduced average tariff and tariff dispersion.
- **Fostering competitiveness.** The DR privatized the CEA in 1999 while some competition was brought into the electricity sector. Although necessary, the cost reduction measures resulting from the privatization of the CEA has had dramatic

consequences on sugarcane workers' families who are overwhelmingly poor. Also, the absence of a framework to regulate the electricity sector has lowered competition instead of increasing it. As a result, the DR still has the highest electricity production costs and tariffs in all the LAC region which adversely affects the whole population including the poor.

...THE IMPACT OF THE HAITIAN MIGRATION...

21. Migration from Haiti has a positive impact on the Dominican economy overall. Migrants from Haiti create economic value in the DR. However, it directly benefits the non-poor (e.g., large landowners, construction sector, etc.), while creating competition with poor Dominicans and likely keeping unskilled wages down. As a result, poor Dominicans may benefit less from the growth process. Low wages in turn reduce the incentive to modernize agriculture. Migration from Haiti may also exert negative externalities on poor Dominicans by limiting their access to public goods (e.g., health services), especially along the border between the two countries.

...AND LOW LEVEL, BIASES AND INEFFICIENCIES OF PUBLIC SPENDING ON THE SOCIAL SECTORS.

22. Low levels of public spending on the social sectors, together with lack of targeting and low efficiency of the existing social programs have prevented improved outcomes for the poor:

- **Total public spending on the social sectors** (6.3 percent of GDP overall, 2.5 percent for education and 1.5 percent for health in 1998) is lower than in other LAC countries (12.8 percent of GDP overall, 3.8 percent for education and 2.0 percent for health). Furthermore, the composition of public spending on the social sectors is highly inefficient.
- **Public spending on education** is progressive, with the poor benefiting more than the non-poor. Public spending on pre-

primary (*educacion inicial*) and primary education is progressive. However, public spending on secondary education is regressive while public spending for university education is extremely regressive. Also, public spending on education favors rural areas, although children of Haitian-Dominicans are largely left out of the educational system. However, the composition of public spending on education is inadequate for poverty alleviation. Public spending on higher education does not benefit the poor while extremely limited public resources are allocated to Early-Childhood Development (ECD) programs and pre-primary education which could benefit them the most. Furthermore, the poor quality of public education stems from inefficiencies in the delivery of educational services, including highly centralized decision-making, lack of participation by the beneficiaries, large operational costs, weak policy-making and planning capacity in the Ministry of Education, lack of management information systems and evaluation tools, and a lack of connection between teacher salaries and performance.

- Inequities in **public spending on health care** also abound. Public spending on health is biased toward tertiary care, while little resources are devoted to preventive and primary health care. Although the poor benefit the most from public spending on health care, inefficiencies in the health sector - including an outdated health and social security legislation, the fragmentation of the sector by three major providers (the Ministry of Health, the Social Security Institute and the private sector), the neglect of primary and preventive services, an excessive centralization, and inefficiencies in the allocation and spending of public resources, together with weak policy-making, financing, and regulation capabilities in the Ministry of Health - have also prevented improved outcomes among the poor.

- **Public spending on housing and basic infrastructure** is the highest in the LAC region. Despite limited information on which to base a firm conclusion, the existing housing programs seem inefficient and ineffective at reaching the poor due to a lack of targeting, inefficiencies in program delivery and duplication of functions among a large number of uncoordinated public institutions.
- The Government has attempted to compensate for some of these biases by developing a number of **nutrition and social assistance programs**. While several programs appear to be quite effective at reaching the poor, lack of targeting, inefficiencies in program delivery, and possible duplication of function linked to the absence of overall coordination reduce the effectiveness of these transfers. However, information regarding amounts, targeting and program efficiency is also very limited.

23. **The Government has recently started to address some of these deficiencies.** It has made some efforts in recent years to improve the coverage and quality of education. It has also initiated an ambitious Health Sector Reform and Modernization Program in 1997 that sought to improve the health and nutrition status of the population, particularly the poor, by facilitating access to quality health services in an efficient and sustainable way. The social security system to begin in mid-2002 is supposed to provide pension, health and accident coverage to the whole population, including the poor, although there are serious questions about the desirability and especially the fiscal sustainability of some of the provisions.

THIS SITUATION REQUIRES THAT THE GOVERNMENT DEFINE THE PRINCIPLES OF A POVERTY REDUCTION STRATEGY...

24. **Since the mid-1990s, successive governments have taken actions aimed at fighting poverty.** In February 2001, President Mejía announced a package of social compensation measures collectively known as the “Paquetazo Social.” However, the

Government still does not have a comprehensive Poverty Reduction Strategy, founded on sound basic principles with clear objectives and priorities for translating this strategy into action. A social cabinet responsible for the definition of social policies, as well as their implementation and evaluation was created in April 2001. The Poverty Reduction Strategy outlined in this report is based on a few underlying principles:

- Consolidate macroeconomic stability with low inflation to maintain strong and sustainable economic growth,
- Deepen structural economic reforms,
- Regulate the migration flow from Haiti,
- Prioritize among poverty groups,
- Evaluate, rationalize and reallocate social expenditures before increasing them,
- Decentralize decision-making authority for the delivery of social services and promote community participation,
- Establish links between the public and private sectors,
- Develop and use targeting mechanisms for priority groups,
- Monitor both the poverty situation and the implementation of the strategy itself.

25. **The strategy also includes an action plan for interventions in key areas**, including: education, health, housing, nutrition and social assistance programs, basic infrastructure, land and property titling, and financial and insurance services.

...AND TRANSLATES THESE PRINCIPLES INTO PRIORITIES AND ACTIONS.

26. **To translate these principles into action, the Government could:**

- **Deepen structural economic reforms.** The agenda of economic reforms to promote economic growth is large, encompassing reforms to modernize the State, foster competition, liberalize trade, and introduce a modern social security system. The Government also needs to prevent backsliding against reforms which have been initiated and need to be aggressively pursued like trade reform and fostering competitiveness in the electricity sector.
- **Regulate the migration flow from Haiti.** Delivering working permits to Haitian migrants will prevent competition between them and unskilled Dominicans.
- **Develop political and economic cooperation with Haiti.** In the long-run, the only way to solve the immigration problem and thereby help the Dominican poor is by improving economic conditions in the island of Hispaniola as a whole.
- **Prioritize among poverty groups** according to the prevalence, depth and severity of poverty. First priority should be given to the rural poor and especially those who live in the bateyes, poor and malnourished children in all areas and poor single mothers particularly in urban areas. Second priority should be assigned to combating poverty among the urban poor who live in slums in flood-prone areas, the elderly poor and at-risk children who have left the formal education system. Finally, third priority should be given to programs that target the remaining poor in urban areas, poor workers who are employed in the informal sector, and the unemployed poor.
- **Evaluate, rationalize and reallocate social expenditures before increasing them.** In the medium-term, a strong poverty reduction strategy would eventually require an increase in overall government resources. However, such an increase should take place only within the context of an overall modernization of the state as, in the current context of opacity in the public finances, the mechanisms are not in place to ensure that

additional funds would efficiently reach priority groups. Therefore, a thorough evaluation of the existing social programs, followed by a rationalization of social expenditures and a reallocation of the corresponding savings toward the priority groups, could be top priority for effective action to reduce poverty. Public spending on **education** must be reallocated in the short-term and then increased in the medium-term for improved effectiveness in combating poverty. Clear candidates for the allocation of more resources and increased efficiency include: (i) enforcing higher cost recovery for higher education while reducing spending by the Ministry itself and shifting freed resources toward Early Childhood Development (ECD) programs (for children between 6 months and 3 years) and pre-primary and secondary education with priority accorded to the poor; (ii) focusing spending on demand side education schemes (e.g., targeted school feeding and/or attendance-based cash transfer programs) to reduce economic barriers faced by poor households and increase enrollment by the poor, (iii) improving the quality of the basic education systems including availability of schools particularly in the bateyes. Regarding **health**, the Government should forcefully implement the Health Sector Reform and Modernization Program to be complemented by (i) shifting resources toward preventive and primary health care interventions in poor and rural areas (using the poverty map), (ii) review the existing procurement, storage and distribution of medication by the public sector, and (iii) reforming the health security system in the medium term. Public spending on **housing programs** remains largely untargeted and needs immediate restructuring for improved effectiveness in combating poverty. Spending on **nutrition and social assistance programs** should be also reviewed, rationalized and streamlined to ensure a comprehensive, efficient, and well-targeted social safety net. Public spending on **basic infrastructure** should be allocated according to gaps and poverty criteria in consultation with the communities.

- **Decentralize and promote community participation in service delivery** to improve the effectiveness of poverty interventions. Examples include: (i) decentralizing personnel decisions to provincial health units under SESPAS and strengthening primary health care services through the creation of an innovative network of public, private and NGOs service providers; (ii) decentralizing food purchases under the school lunch program following the success of the pilot project carried out in Sabana de la Mar; (iii) expanding use of communities and NGOs as intermediaries in social programs; and (iv) responding to community expression of preferences for service delivery.
- **Develop and use targeting mechanisms.** Targeting resources to the poor is a crucial tool for improving the impact and cost-effectiveness of public spending and interventions. The Government could apply the existing poverty map to the allocation of expenditures as soon as possible. It could seek to update the poverty map regularly and develop additional mechanisms for targeting, including means-testing and self-targeting.
- **Allocate sufficient resources to monitor poverty and the implementation of the strategy.** The Government could develop a poverty monitoring system to track living conditions and provide the data for the evaluation of the impact of public interventions. This system includes LSMS-type surveys to be conducted every two years. The Government could also adopt a number of actions to monitor the implementation of the poverty strategy, including: (i) detailing actions for the strategy period in an action plan, (ii) specifying actions for each year, (iii) developing monitoring indicators that will be tracked by each institution. The Government could also designate the recently created social cabinet as the public entity responsible for implementing and coordinating the strategy itself and monitoring the poverty situation. Resources

should also be made available for evaluating the poverty impact of specific interventions.

27. Some key steps for immediate implementation in 2001 could include:

- Conducting a thorough review of public expenditures on the social programs including education, health, housing, and nutrition and social assistance interventions and developing proposals for rationalization of the existing programs and reallocation of expenditures so that they better reach the poor for the 2002 budget;
- Developing a Government-owned Poverty Reduction Strategy including the definition of priority poverty groups and an action plan for interventions in key areas, including: education, health, housing, nutrition and social assistance programs, basic infrastructure, land and property titling, and financial and insurance services. The recently created social cabinet could be responsible for the elaboration of the Poverty Reduction Strategy and involve all of civil society, including the poor;
- Designating the institution responsible for the implementation of the strategy including its overall coordination among ministries and other public entities to avoid duplication and other inefficiencies. It is expected that the recently created social cabinet will have this function;
- Designating the entity responsible for coordinating the monitoring of the poverty situation. This entity would be responsible for developing a set of indicators to monitor the implementation of the strategy (including key budget categories), and establishing an inter-ministerial process for reporting on such indicators and implementation;
- Updating the Poverty Map prepared by ONAPLAN as a tool for targeting and resource allocation.

DOMINICAN REPUBLIC POVERTY ASSESSMENT: POVERTY IN A HIGH-GROWTH ECONOMY (1986-2000)

INTRODUCTION

- Objectives.** This report, which is a component of the June 1999 World Bank Group's three-year Country Assistance Strategy (CAS), has three main objectives. The first is to assess the extent and determinants of poverty in the Dominican Republic (DR). The second involves examining the impact of government policies and spending on the poor in key sectors. The third is to outline a Poverty Reduction Strategy and define priorities and steps for translating this strategy into action. The ultimate objective of this report is to assist policymakers in identifying plausible policy options towards reducing poverty, while not compromising the growth potential of the economy.
- Quantitative and Qualitative Data Sources.** This study is based primarily on three household surveys: the 1986 Income-Consumption Household Survey (*Encuesta Nacional de Ingreso-Consumo*) conducted by Tufts University, the 1992 Income and Expenditure Survey (*Encuesta de Ingresos y Gastos*) developed by a non-profit Dominican economics research institute, the *Fundación Economía y Desarrollo* (FEyD) and financed by USAID and the most recent 1998 household survey (*Encuesta Nacional de Gastos e Ingresos de los Hogares* (1998 ENGIH), implemented by the Central Bank which represents by far the most complete household survey available to date in the DR. The 1998 ENGIH household questionnaire includes quantitative data on various aspects of living conditions, including household structure, housing, infrastructure, health, nutrition, education, economic activities (labor), migration, spending and consumption, source and level of income, savings, credit and activities.¹ The study also draws on results from four **Social Capital Qualitative Surveys** (SCQS) conducted for this report by local churches and NGOs in urban slums and bateyes.² These surveys were designed to complement the ENGIH 98 with in-depth community-level information on perceptions, social economic conditions, social organization, and social capital in marginalized areas.
- Collaborative Process.** The process by which this report was prepared is as important as the document itself. It is based on a collaborative process between the government, civil society, and the World Bank. It has been designed to construct local capacity for, and foster ownership of, the analysis of poverty. The process involved continuous cooperation between the World Bank Country Office and Dominican counterparts, as well as a number of missions. Some preliminary results were disseminated, and were presented to and discussed with members of the Government. Preliminary results were also shared with civil society, within the context of a working round table on poverty. This round table serves as an important component in the implementation of the Comprehensive Development Framework (CDF) in the DR. The process is expected to serve as an input for policy making and the development of the future Bank Assistance Strategy for the DR. The donor community could also use the Poverty Reduction Strategy outlined in the Report to guide its future interventions.
- Policy Impact of the Poverty Assessment.** The Government which took office in August 2000 clearly indicated that poverty alleviation is its first priority. However, the Government is still in the process of defining its own Poverty Reduction Strategy. As such, the strategy for poverty alleviation outlined in this Poverty Assessment could serve as an important input in the development of a Government-owned Poverty Reduction Strategy.

¹ The final sample includes 4,810 households, of the 1,919,064 households at the national level, and 20,356 individuals of the 8,155,294 individuals in the national population.

² The bateyes are communities located in or close to the sugar cane plantations.

5. **Road Map for the Report.** This report is divided in two volumes. The first volume, the **Main Report**, presents the fundamental content of the report and is organized as follows. **Chapter 1** identifies the magnitude of the problems of poverty in the DR. It defines and measures poverty as well as its evolution over the period 1986-98, while insisting on the limitations of poverty rates as poverty goals. It shows that economic growth is a necessary but not a sufficient condition for poverty reduction. Finally, it reviews the determinants of poverty in the DR. **Chapter 2** establishes that the problems of poverty in the DR largely reflect underlying disparities in economic opportunities. The distribution of key assets -- labor, human capital, physical assets, basic infrastructure, financial assets, pension and insurance -- is highly unequal. These disparities are most prevalent between the poor and the non-poor, but also manifest themselves in different geographic areas. **Chapter 3** analyzes the links between disparities in the distribution of assets and policy and institutional shortcomings, and reviews recent reforms that have sought to correct these shortcomings. It also analyzes the impact of Haitian migration. **Chapter 4** shows that a low level of public spending on the social sectors together with inefficiencies and inequities in existing public spending patterns have prevented outcomes for the poor to improve. It highlights the crucial need for an immediate review of public expenditures on the social sectors as a top priority for effective action to reduce poverty. Indeed, a thorough review of public spending on the social sectors would provide guidance on the rationalization of the existing programs and is expected to generate substantial fiscal savings. Based on the conclusions of the previous chapters, **Chapter 5** outlines the main principles of a Poverty Reduction Strategy, and recommends priority actions for implementing this strategy. The second volume, the **Background Papers**, includes a number of in-depth technical papers that were prepared during the Poverty Assessment process. These include papers on: Measure and Evolution of Poverty, Causes of Poverty Reduction, Urban Squatter Settlements, Rural Poverty, Macroeconomic Policies on Rural Poverty, Haitian Immigration, Social Risks and Social Programs, and Institutional Aspects of Social Programs.

1. MEASURE, EVOLUTION AND DETERMINANTS OF POVERTY IN THE DOMINICAN REPUBLIC

1. **This chapter identifies the magnitudes of the problems of poverty in the DR.** It begins with a brief introduction that analyzes post-1992 economic growth. It then defines and measures poverty as well as its evolution over the period 1992-98, while insisting on the limitations of reducing income- or expenditure-based poverty rates as policy goals. It examines the instrumental role of growth in poverty reduction. Finally, it reviews the determinants of poverty in the DR.

A. *Economic Growth since 1992*

2. **Since the restoration of macroeconomic stability in 1991, the DR is in the midst of a remarkable period of economic growth.** Since 1992, the DR has been among the fastest growing economies in the world. Average annual economic growth from 1992 to 1999 exceeded 6 percent, and during the last three years, the average annual growth rate has been at a very high 8 percent (Table 1.1). This remarkable economic performance followed many years of poor performance. The 1980s were characterized by slow and fluctuating growth, rising inflation, and a deterioration in social conditions. A mild recovery in 1986-1987, achieved through expansionary fiscal and monetary policies, culminated in historically high levels of inflation and negative growth in 1990. In response to this crisis, the government undertook a very successful stabilization program based on eliminating the fiscal deficit through tax reforms and implementing some trade reform and financial sector liberalization. Stability and restored confidence in the economy led to growth in savings and investment, increased productivity, and ultimately growth. Income per capita, which decreased from US\$1,170 in 1980 to US\$860 in 1991, steadily rose since to reach US\$1,910 in 1999.

Table 1.1: Decomposition of GDP Growth 1992-1999 (Percent)

Year	GDP growth	Capital			Labor			Total Factor Productivity	
		Annual Growth	Contribution to GDP growth	Share in GDP Growth	Annual Growth	Contribution to GDP growth	Share in GDP Growth	Contribution to GDP Growth	Share in GDP Growth
1992	7.98	4.54	2.34	29.33	6.87	3.33	41.69	2.31	28.98
1993	2.96	4.71	2.43	82.23	0.43	0.21	7.00	0.32	10.77
1994	4.32	4.05	2.09	48.36	-0.67	-0.32	-7.46	2.56	59.09
1995	4.85	3.93	2.03	41.79	0.00	0.00	0.04	2.82	58.17
1996	7.25	4.24	2.19	30.18	5.09	2.47	34.00	2.60	35.81
1997	8.21	5.46	2.82	34.30	5.11	2.47	30.13	2.92	35.57
1998	7.32	7.64	3.94	53.82	2.78	1.35	18.36	2.04	27.82
1999	8.30	8.65	4.46	53.77	2.64	1.28	15.41	2.56	30.82
<i>Average</i>	6.40	5.40	2.79	46.72	2.78	1.35	17.40	2.27	35.88

Source: Estimates based on data provided by the Central Bank of the Dominican Republic.

3. **Analysis of the sources of growth indicates that a major force behind current high-sustained growth has been an unprecedented accumulation of capital.** A Solow decomposition of the sources of growth indicates that the strong post-1992 growth has been mainly driven by an accumulation of capital which explains about half of the economic growth (Table 1.1).

B. Measure and Evolution of Poverty¹

B.1. The Limitations of Poverty Rates as Policy Goals

4. A number of household surveys have been carried out by public and private institutions which enable one to measure poverty (Table 1.2). The National Statistical Office (ONE) is the public entity officially in charge of conducting surveys and monitoring most economic indicators. It has conducted two household surveys limited to the city of Santo Domingo in 1941 and 1969 and the 1993 census. Faced with a lack of systematic recollection of information by the ONE, the Central Bank and private institutions have progressively taken a more active role in measuring welfare in the DR. The Central Bank has implemented three household surveys in 1977, 1984 and 1998. The most recent *Tercera Encuesta Nacional de Gastos e Ingresos de los Hogares* (ENGIH 1998) represents by far the most complete household survey available to date. In 1989, the Central Bank also conducted a household survey with the objective of assessing social expenditures, financed by the UNDP. Private institutions have also carried out several household surveys which have been used to assess welfare. In 1986, Tufts University conducted an Income-Consumption Household Survey (*Encuesta Nacional de Ingreso-Consumo*). In 1992, a non-profit Dominican economics research institute, the *Fundacion Economia y Desarrollo* (FEyD) developed an Income and Expenditure Survey (*Encuesta de Ingresos y Gastos*), financed by USAID. Also, the Institute for Population and Development Studies (IEPD) (*Instituto de Estudios de Poblacion y Desarrollo*) and the Center for Social and Demographic Studies (CESDEM) (*Centro de Estudios Sociales y Demograficos*) conducted demographic and health surveys (*Encuesta Demografica y de Salud*) in 1991 (ENDESA-91) and 1996 (ENDESA-96), respectively. Of these two surveys, the ENDESA-96 includes an income module and has been used to assess welfare.

Table 1.2: Surveys Used to Assess Poverty in the Dominican Republic

Year	Institution	Survey	Coverage
1941	National Statistical Office (ONE)	<i>Encuesta de Hogares</i>	Santo Domingo
1969	Central Bank (CB) and ONE	<i>Encuesta de Ingresos y Gastos Familiares</i>	Santo Domingo
1976-77	CB	<i>Primera Encuesta Nacional de Ingresos y Gastos de las Familias</i> (ENIGF 1977)	National
1984 Nov	CB	<i>Segunda Encuesta Nacional de Ingresos y Gastos de las Familias</i> (ENIGF 1984)	National (1,566 households)
1986 Jan-Nov	Tufts University	<i>Encuesta Nacional de Ingreso-Consumo</i>	National (1,404 households)
1989 March	CB	<i>Encuesta de Gastos Sociales</i>	National (799 households)
1991 July-Nov	<i>Instituto de Estudios de Poblacion y Desarrollo</i> (IEPD)	<i>Encuesta Demografica y de Salud</i> (ENDESA 91)	National (7,144 households)
1992 July-Aug	<i>Fundacion Economia y Desarrollo</i> (FEyD)	<i>Encuesta Nacional de Ingresos y Gastos</i>	National (1,198 households)
1993	ONE	<i>Censo de Poblacion y Vivienda</i>	National (all households)
1996 Sept-Dec	<i>Centro de Estudios Sociales y Demograficos</i> (CESDEM)	<i>Encuesta Demografica y de Salud</i> (ENDESA 96)	National (8,831 households)
1998 Oct 97-Sept 98	CB	<i>Tercera Encuesta Nacional de Gastos e Ingresos de los Hogares</i> (ENGIH 1998)	National (4,810 households)

5. Differences in methodologies including the definition of poverty lines and questionnaires have made comparisons across surveys and across time a very challenging task. Despite this fact, the public debate, which is political by nature, has often assumed the poverty levels as comparable and essentially focused on levels and evolution of poverty rates. Annex 1.1 indicates poverty and extreme poverty rates which have been derived from the analysis of the surveys.

¹ All poverty indicators refer to individuals and not households.

6. **Although setting poverty reduction goals based on poverty indicators is important and laudable, policy makers need to be aware of the often quite fragile nature of such poverty estimates (Box 1.1). First, poverty is multidimensional and has a much broader meaning than that which can be derived from the conventional poverty indicators based on income or consumption.** Income and consumption are only *means* of attaining better lives, and not *ends* in themselves. Lower malnutrition in children, better health of the population, more safety, longer lives, lower maternal and infant mortality rates, higher literacy, less hunger, less discrimination in work and social life, and more active participation in the political and social affairs of communities and the country characterize better and less poor societies. Several other dimensions might not be linked to measures of income- and consumption-based poverty: crime and violence might affect large parts of the population, discrimination in the job market can exist against certain groups in society, or children might be malnourished although they grow up in rather affluent households.

Box 1.1: Poverty Measures: Conceptual Issues

The notion of the poverty line is at the heart of all discourse on poverty. Poverty lines are a critical threshold of consumption, income or more generally access to goods and services below which individuals are declared to be poor. The poverty line then represents a minimum level of “acceptable” economic participation in a given society at a given point in time. For instance, poverty lines can be defined on minimum nutrient levels that make up an adequate diet expanded for the costs of other requirements such as rent and clothing. This is the approach we followed in this report. Alternatively, poverty lines can be defined as the prevailing legally decreed minimum wage in a country or some norms, say, 60 percent, of the mean income of a country.

There are however, some fundamental concerns that surround poverty measurement. First, should we declare a person to be poor when his actual, observed consumption basket falls below certain pre specified thresholds or when his expenditure (or overall income) falls below the minimum required to obtain these consumption standards? For example, nutrition levels may not ambiguously rise with income and canned food may become quite popular at certain levels of income, even though their nutritive value is questionable. The elasticity of food consumption with respect to income may not correspond to the nutrient elasticity. Indeed, income represents the capacity to consume but not consumption itself. Second, although there is something absolute about the notion of poverty (in all societies people need adequate levels of food, clothing and shelter), there are variations in what might be considered “adequate”. Accesses to higher levels of education or alcoholic beverages may be deemed a “basic need” in some societies while they may not be in others. Third, poverty is a transient measure and people do often experience significant fluctuations in their income and consumption. Measures of “structural” or chronic poverty must be therefore complemented by a study of “temporary” poverty. The distinction between the two types of poverty is very important, as the policies to combat temporary as opposed to chronic poverty may be very different.

For this reason, expenditures are often thought as a more reliable way to assess chronic poverty as income fluctuates more across time. An International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) study in India found that only about 12 percent of households were never poor during the nine years under consideration while, at the other extreme, 44 percent were poor for six or more years, and 19 percent were poor in every year. The surveys currently available in the DR do not allow checking this proposition, as they do not follow the same household for various years. It is advisable that future surveys be designed to provide this opportunity. Fourth, poverty measures fail to account for intra-household allocation of expenditures. Most surveys provide with household-level data. However, this neglects that the allocation of expenditures within the household is often significantly skewed. Among potential victims are the women and the elderly. There is some evidence that such discrimination grows sharply with the overall destitution of the household. Also, a second set of concern arises from the fact that larger households typically have more children. Some correction for the presence of children is desirable, because they consume less than adults. The construction of adult equivalence scales - conversion factors that express the consumption of children as a fraction of a representative adult - get around this problem. There are conceptual questions regarding the construction of such scales which led us to decide to use per-capita expenditure (or income) although this practice - which leads to an overvaluation of poverty - can certainly be improved. Finally, there are fixed costs in setting up and running a household and smaller households cannot spread these fixed costs over several household members.

7. **Second, the determination of poverty rates based on income or consumption levels depend on assumptions which have a certain degree of arbitrariness and can therefore be called into question.** The determination of consumption and income and the choice of poverty lines depend on numerous assumptions, which, if changed only slightly, can produce very different poverty rates. For example, measures of consumption or income do not carry any information about the goods that are

offered. An increase in real income merely reflects a widening in command over marketed goods and services. Also, poverty lines based on nutrient intake assume that households know about nutrition and balanced diets, which may also be questionable.

8. **Third, there are technical difficulties in measuring poverty and its evolution.** In developing countries household income is difficult to measure because, among other things, a number of activities, products and services remain unrecorded. Many rural transactions are not recorded in cash and the volume of illegal transactions can be large. Also, the questionnaires of the various surveys do not use a consistent and common methodology, which make their comparison difficult. Finally, surveys are based on samples or subsets of households, which are designed to reproduce the whole population. However, by nature, these samples can never be exact. This is particularly true in the DR where a large number of Haitian immigrants have an undefined legal status, fear deportation and Dominican officials, and consequently remain unaccounted for in most surveys. Hence, poverty rates calculated from these sample surveys necessarily carry margins of error, which have never been accounted for in previous analyses of poverty in the DR.

B.2. Methodology²

9. **The main objective of this section is to establish a consistent methodology to analyze the evolution of poverty in the DR since 1986.** We use three household surveys to conduct our analysis: the 1986 Tufts University survey, the 1992 FEyD survey and the 1998 ENGIH survey (Table 1.2).³

B.2.i. Definition of Poverty Lines

10. **We construct poverty lines using the cost of basic needs method.**⁴ Under this method, we first define an *extreme poverty line*. The extreme poverty line is defined as the cost of a normative food basket which individuals need to meet their energy requirement of 2,161 calories per diem. Obviously, many food bundles can provide this requirement. However, some food bundles while providing the necessary calorie intake do not contain the necessary nutrient complement for a healthy life. Indeed, the nutrients we consume are conventionally divided into five categories: proteins, carbohydrates, fat, vitamins, and minerals; and a person cannot make up for deficiencies in one by consuming more of another. For example, supplementation of dietary energy does not improve children's health if their diets continue to have insufficient quantities of minerals and essential amino acids. What is required is a balanced diet where the various nutrients appear in their required quantities. Admittedly, an individual can spend more on food and still suffer from a deficiency in any one nutrient. However, an individual who cannot afford this basic food basket is unlikely to simultaneously meet the nutrient and calorie intakes required by the body for internal functions, but also in order to do work. Consequently, the food basket that we consider is that developed by the *Fundación Economía y Desarrollo* in its 1992 analysis of poverty in the DR (Table 1.3). Based on the 1992 survey, the daily per-capita caloric intake of the first quartile of the population (i.e., the poorest 25 percent of the population) was 1,766 calories. Since the daily per-capita caloric intake of the first quartile is below the energy requirement of 2,161 calories per diem, it is necessary to expand their intake of 1,766 calories to the required 2,161 calories by using a factor of 1.22 (i.e., $1.22=2,161/1,766$) in order to calculate the normative food basket and hence, calculate an extreme

² See Background Paper 1 for more details.

³ We could not use other surveys for various reasons: the 1984 ENIGF survey uses a different methodology, the 1989 Central Bank survey focuses exclusively on social expenditure, the 1991 ENDESA survey does not include information on revenues and the 1996 ENDESA has not been structured so as to permit an analysis of revenues. Also, data from previous surveys is not available.

⁴ There are alternative ways to measure poverty. The National Planning Office (ONAPLAN) derives higher poverty rates based on a multivariate analysis (See Annex 1.1).

poverty line. We then estimate the cost of the food basket in 1992 using prices derived from the survey itself. This cost is DR\$252.1 per month.

11. **The second step consists of the construction of a normative consumption basket in 1992, which incorporates the estimation of a reasonable allowance for non-food consumption including rent.⁵** This allowance is determined following a methodology based on the actual non-food expenditures for households with per capita consumption near the extreme poverty line (Table 1.4). The monthly cost of this normative consumption basket was DR\$554.4 in 1992.

12. **The third step consists of computing poverty lines and extreme poverty lines in 1986 and 1998 (Tables 1.3 and 1.4).** These poverty lines are computed using the normative food and consumption baskets for the year 1992 while deflating their costs in other years using commodity prices as provided preferably by the surveys or by prices available from the DR Central Bank. **We obtain an extreme poverty line and poverty line of DR\$396.2 and DR\$867.7, respectively in 1998. To put these poverty lines into the current context, these definitions lead to an extreme poverty line of DR\$493 and a poverty line of DR\$1,080 at end-2000.**

Table 1.3: Normative Food Basket, Prices, and Extreme Poverty Lines by Period

	Daily per-capita consumption (Pound) (1992 Survey) (Quartile 1)	Calories per pound	Daily per-capita caloric intake (1992 Survey) (Quartile 1)	Daily required per-capita caloric intake (Quartile 1) ^{1/}	Daily required per-capita consumption (Pound)	Nominal price per pound of food components (DR\$)			Monthly cost of normative food basket (DR\$)		
	(I)	(II)	(III) = (I)x(II)	(IV) = (III)x1.22	(V)=(I)x1.22	(VI)			(VII) = (V)x(VI)		
	1992		1992			1986	1992	1998	1986	1992	1998
Common rice	0.283	1586.7	449.7	550.2	0.347	0.49	4.04	5.74	5.2	42.6	60.5
Quality rice	0.076	1668.1	126.8	155.1	0.093	0.54	4.40	6.25	1.5	12.4	17.7
Red beans	0.058	1514.9	88.3	108.1	0.071	1.73	7.87	14.41	3.8	17.1	31.3
Other beans	0.016	1496.5	24.5	30.0	0.020	2.31	10.53	19.28	1.4	6.4	11.8
Green plantain	0.312	407.5	127.2	155.6	0.382	0.19	1.43	2.80	2.2	16.6	32.5
Yucca	0.134	410.9	54.9	67.2	0.163	0.29	1.34	4.09	1.4	6.7	20.3
Green banana	0.250	470.8	117.7	144.0	0.306	0.13	1.00	1.95	1.2	9.3	18.1
Chicken	0.083	814.7	67.6	82.7	0.102	1.98	8.62	14.33	6.1	26.6	44.3
Beef	0.016	431.0	6.7	8.2	0.019	2.53	14.65	19.08	1.5	8.5	11.1
Pork	0.010	407.2	3.9	4.8	0.012	3.02	14.97	20.55	1.1	5.4	7.4
Sausage	0.007	1393.9	9.9	12.1	0.009	2.81	23.07	25.05	0.7	6.1	6.6
Dry fish	0.007	685.3	5.0	6.1	0.009	3.23	20.07	29.14	0.9	5.5	7.9
Liquid milk	0.141	637.0	89.5	109.5	0.172	0.33	2.16	3.21	1.7	11.3	16.8
Egg (unit)	0.186	71.4	13.2	16.2	0.227	0.22	1.01	1.10	1.5	7.0	7.6
Bread	0.023	1305.8	29.8	36.4	0.028	0.70	7.41	13.98	0.6	6.3	11.9
Pasta	0.027	2322.4	63.2	77.3	0.033	0.61	6.86	8.75	0.6	6.9	8.9
Vegetable oil	0.063	4036.5	253.9	310.7	0.077	1.94	9.34	11.84	4.5	21.9	27.7
Sugar	0.065	1798.0	116.7	142.8	0.079	0.31	3.03	4.72	0.7	7.3	11.4
Others ^{2/}			117.6	143.9					4.5	28.2	42.5
Total			1,766.0	2,161.0					41.3	252.1	396.2

^{1/} UNDP (1989) estimated a daily per-capita energy requirement of 2,161 calories for an average person in the tropics. Based on the 1992 survey, the daily per-capita caloric intake of the first quartile of the population (i.e., the poorest 25 percent of the population) was 1,766 calories. Since the daily per-capita caloric intake of the first quartile is below the energy requirement of 2,161 calories per diem, it is necessary to expand their intake of 1,766 calories to the required 2,161 calories in order to calculate the normative food basket and hence, calculate an extreme poverty line. Columns (IV) and (V) represent the per-capita caloric intake and consumption of the first quartile's food basket after expansion (1.22=2,161/1,766).

^{2/} Others consists of 30 other food items (see Dauhajre et al (1994), p. 126). Their prices in 1986 and 1998 were calculated by deflating the 1992 price by the January-September 1986 and July-August 1992 food, beverages and tobacco inflation rate.

In 1998, we inflated the 1992 value with the July-September 1992 and October 1997-September 1998 food consumer price variation.

Note: We used the price variation of his near substitute if the value of one product was not available

Source: World Bank calculations, based on Dauhajre et al (1994) and Central Bank (1986, 1998).

⁵ The 1986 and 1992 surveys do not contain the necessary information to adjust for the fact that some households own their house and consequently do not pay rent. We erred on the conservative side and included rent in the basic consumption basket. This may lead to some overvaluation of poverty to the extent that some poor households own their house and do not pay rent.

Table 1.4: Normative Food Basket, Prices, and Poverty Lines by Period

Item	1986		1992		1998	
	Aggregate Consumption (DR\$)	Percentage	Aggregate Consumption (DR\$)	Percentage	Aggregate Consumption (DR\$)	Percentage
Food basket (Extreme poverty line)	41.3	38.4	252.1	44.9	396.2	45.7
Beverages and tobacco	2.3	2.1	14.4	2.6	21.7	2.5
Transportation	8.2	7.6	34.5	6.1	51.9	6.0
Water, electricity and oil	1.2	1.2	5.3	0.9	7.9	0.9
Personal cleaning and services ^{1/}	5.8	5.4	31.4	5.6	47.2	5.4
Education	2.8	2.6	12.9	2.3	19.4	2.2
Health	5.8	5.4	26.3	4.7	39.6	4.6
Clothing and shoes	6.2	5.7	33.6	6.0	50.5	5.8
Entertainment and culture	4.5	4.2	20.3	3.6	30.5	3.5
Rent ^{2/}	24.4	22.7	102.4	19.4	168.0	19.4
Furniture and domestic appliances ^{2/}	5.0	4.6	21.1	4.0	34.7	4.0
Poverty line (DR\$)	107.5	100.0	554.4	100.0	867.7	100.0
<i>Memo:</i>						
Poverty line (DR\$)	107.5		554.4		867.7	
Extreme poverty line (DR\$)	41.3		252.1		396.2	
Poverty line (US\$)	37.2		43.3		58.2	
Extreme poverty line (US\$)	14.3		19.7		26.6	

^{1/} Includes financial services.

^{2/} Derived for 1986 and 1992 using the 1998 share of total consumption.

Source: World Bank calculations.

13. **Although the adoption of normative food and consumption baskets fixed in time may be challenged on several grounds, it has an attractive feature for policy makers: the extreme poverty rate represents the percentage of individuals who cannot afford the normative food basket while the poverty rate represents the percentage of individuals who cannot afford the normative consumption basket.** It could be argued that using a common food bundle for the whole country is inadequate. However, the DR is a fairly small and homogenous country and while it is correct that households may reach their nutritional requirements with different bundles, differences in food consumption patterns across areas are limited. It could also be argued that prices vary by area and that using a fixed food bundle does not allow for substitution effects. However, this effect is also limited in the DR where prices are fairly homogenous across regions due to limited transportation costs. It could also be argued that the composition of the food basket consumed by the population changes with time. As an economy develops, new kinds of food become available, people substitute some kind of food for others and may well also modify their taste. However, different from some practices, the normative food bundle used to define the poverty lines was kept constant over time for several reasons. First, this approach relies on the argument that ideally we want to fix a certain welfare level (associated with a fixed basket of goods) over time. Second, changes in the composition of the basic food basket are likely to evolve slowly with time: technologies take time to develop and tastes do not change overnight. Defining the food basket in the year 1992, which lies in the middle of the period under study 1986-1998, limits the chance that it would vary drastically. Third, poverty lines are easier to interpret when the food bundle remains unchanged. Indeed, *the extreme poverty rate represents the percentage of individuals who cannot afford the given normative food basket while the poverty rate represents the percentage of individuals who cannot afford the normative consumption basket.* Defining a different basket for each year would make this interpretation impossible.

B.2.ii. Definition of Welfare

14. **The next step consists of defining a monetary measure based on revenue or expenditure in order to construct welfare measures and compare them over time.**⁶ We use a monetary measure based on revenue - and not expenditure - because, while all surveys include household revenues that can be converted into per capita terms, data on expenditures is available only from the 1992 and 1998

⁶ Annex 1.2 describes the poverty measures used in the Report.

surveys. To make the income data comparable across surveys, households' income is corrected for differences in sampling stratification and made consistent with the national accounts (Table 1.5).

Table 1.5: Adjustment Factors Used in Surveys

Year	Survey	Monthly average per capita income ^{1/} (survey)	Monthly average per capita private consumption (national accounts)	Ratio	Adjustment Factors ^{2/}
		(1)	(2)	(3) = (2)/(1)	(4) = (3)/0.89
Jan-Nov 86	<i>Encuesta Nacional de Ingreso-Consumo</i>	DR\$132.6	DR\$182.8	1.38	1.55
July-Aug 92	<i>Encuesta Nacional de Ingresos y Gastos</i>	DR\$1,078.6	DR\$1,128.4	1.05	1.18
Oct 97-Sep 98	<i>Tercera Encuesta Nacional de Gastos e Ingresos de los Hogares (ENGIH)</i>	DR\$2,158.1	DR\$1,916.2	0.89	1.00

^{1/} Excluding public transfers.

^{2/} The 1998 ENGIH is compatible with the national accounts. Hence the adjustment factor is set to 1.00 and other ratios are derived accordingly.

Source: World Bank calculations.

B.2.iii. Poverty Estimates and Standard Errors

15. We are now in a position to analyze poverty and its evolution over time. An individual is defined as *extremely poor* if the per-capita revenue corresponding to his household is not enough to purchase the basic normative food basket while he is defined as *poor* if the per-capita revenue corresponding to his household is not enough to purchase the basic normative consumption basket. Consequently, those defined as *extremely poor* in 1998 are those individuals whose monthly revenues are below DR\$396.2, while those individuals whose monthly revenues are below DR\$867.7 in 1998 are defined as *poor*. Under the same definition, at end-2000, a family of five who earns less than DR\$5,400 per month is defined as poor, while the same family would be defined as extremely poor if it earns less than DR\$2,465 per month.

Table 1.6: Poverty: Statistics and Standard Errors^{1/}

Area	Headcount ratio			Poverty gap ratio			Income gap ratio			Poverty severity ratio		
	1986	1992	1998	1986	1992	1998	1986	1992	1998	1986	1992	1998
National	37.5 (2.5)	33.9 (0.6)	28.6 (1.2)	43.0 (1.6)	34.4 (0.5)	33.3 (0.9)	8.4 (1.0)	5.1 (0.2)	1.6 (0.1)	9.2 (1.0)	5.6 (0.2)	4.4 (0.3)
Urban zone	28.5 (3.0)	19.3 (0.7)	20.5 (1.4)	38.5 (2.4)	32.1 (0.9)	30.7 (1.1)	4.9 (0.8)	2.1 (0.1)	0.9 (0.1)	6.3 (1.0)	3.0 (0.2)	2.7 (0.3)
Rural zone	47.3 (4.2)	49.0 (0.9)	42.1 (2.1)	46.0 (1.9)	35.4 (0.5)	35.5 (1.3)	13.8 (2.6)	10.9 (0.4)	4.1 (0.5)	12.4 (1.9)	8.2 (0.3)	7.2 (0.6)

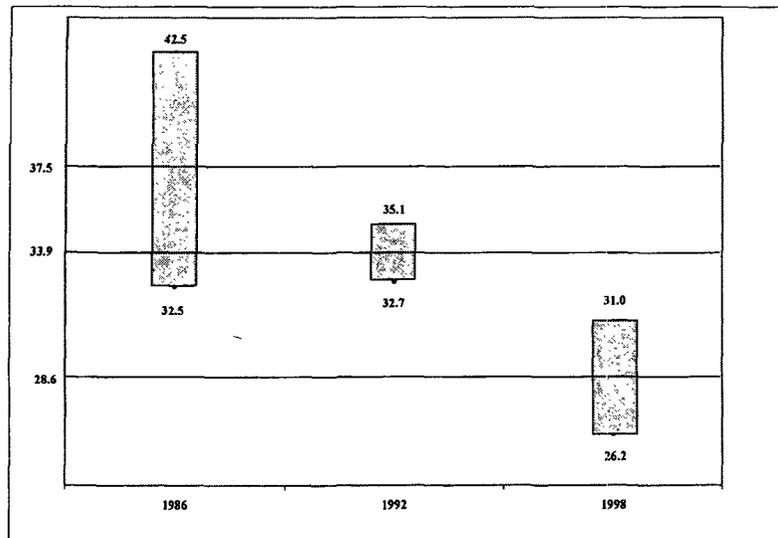
^{1/} Standard errors shown in parentheses.

Source: World Bank calculations.

16. All measures of poverty show an improvement during the period 1986-98. Table 1.6 records poverty by headcount ratio, poverty gap ratio, income gap ratio and severity ratio by area, including the estimated standard errors that take into account stratification and clustering of sample design (Annex 1.2 describes the poverty measures used in the report as well as their limitations). Based on the analysis of the surveys, poverty measured by the headcount ratio decreased from 37.5 percent in 1986 to 33.9 in 1992 before declining to 28.6 percent in 1998 (Annex 1.1 provides a list of previous poverty studies as well as methodology used and derived poverty and extreme poverty rates). Graph 1.1 analyzes the evolution of the headcount ratio. The three columns indicate the range in which we are 95 percent confident that the true rates lie. Consequently, it cannot be concluded at a conventional level of confidence that poverty declined between 1986 and 1992. However, it can be concluded with reasonable confidence that poverty declined from 1992 to 1998. Poverty reduction has been lower in rural areas, decreasing by 5.2 percent over the period 1986-98, compared to a reduction of 8.0 percent in urban areas. Urban poverty declined over the period 1986-92 (while rural poverty remained stable) while rural poverty declined over the period 1992-98 (while urban poverty remained stable) partly explained by a massive rural-urban

migration over the period 1992-98 (share of rural population was 49 percent in 1986 and 1992 and declined to 37 percent in 1998). All other poverty measures improved over the period 1986-92 and further improved during the period 1992-98. This outcome seems to indicate that the remarkable post-1991 economic growth (GDP growth averaged 6.4 percent during the period 1992-99) has trickled down to the poorest segments of the population.

Graph 1.1: Poverty Rates and Their Margins of Error



17. **Poverty is higher in rural areas both in relative and absolute terms.** While 21 percent of the urban population was poor in 1998, the percentage of poor reaches 42 percent in rural areas. Consequently, among the 2.3 million persons considered to be poor, more than half (1.3 million) live in rural areas. The income gap ratio - which is a measure of the resources required to eradicate poverty - indicates that 0.9 percent of total income would be sufficient to eradicate urban poverty compared to 4.1 percent to eradicate rural poverty. Poverty is also more severe in rural areas.

Table 1.7: Extreme Poverty: Statistics and Standard Errors^{1/}

Area	Headcount ratio			Poverty gap ratio			Income gap ratio			Poverty severity index		
	1986	1992	1998	1986	1992	1998	1986	1992	1998	1986	1992	1998
National	8.8 (1.3)	7.3 (0.3)	5.1 (0.5)	37.9 (2.9)	25.3 (0.9)	23.3 (1.5)	0.6 (0.1)	0.4 (0.0)	0.2 (0.0)	1.8 (0.4)	0.7 (0.1)	2.3 (0.2)
Urban zone	6.1 (1.2)	4.1 (0.3)	2.7 (0.4)	48.6 (3.8)	30.6 (2.1)	23.1 (2.3)	0.4 (0.1)	0.2 (0.0)	0.1 (0.0)	1.9 (0.5)	0.6 (0.1)	1.3 (0.2)
Rural zone	11.6 (2.5)	10.6 (0.6)	9.0 (1.2)	31.9 (3.1)	23.2 (0.9)	23.4 (2.0)	0.8 (0.3)	0.7 (0.1)	0.6 (0.1)	1.8 (0.6)	0.9 (0.1)	3.9 (0.4)

^{1/} Standard errors shown in parentheses.

Source: World Bank calculations.

18. **Extreme poverty also improved over the period 1986-98** (Table 1.7). Extreme poverty measured by the headcount ratio decreased from 8.8 percent in 1986 to 7.3 in 1992 and 5.1 percent in 1998.⁷ Extreme poverty is much higher in rural areas (9.0 percent). Extreme poverty as measured by poverty gap and income gap ratios improved over the period 1986-98. However, the poverty severity index increased in all areas from 1992 to 1998 which suggests that a (mainly rural) segment of the

⁷ Extreme poverty rates are low compared to previous studies (Annex 1.1). These rates will need to be re-assessed in future studies.

population (about 400,000 individuals) is lagging behind and has not benefited from the remarkable post-1991 economic growth. This shows that economic growth alone is unlikely to lift this segment of the population out of extreme poverty and that the implementation of well-targeted social policies are needed to alleviate destitution among this group. It may be that this group directly competes in the labor market with a large pool of Haitian migrants which help depress their wages.

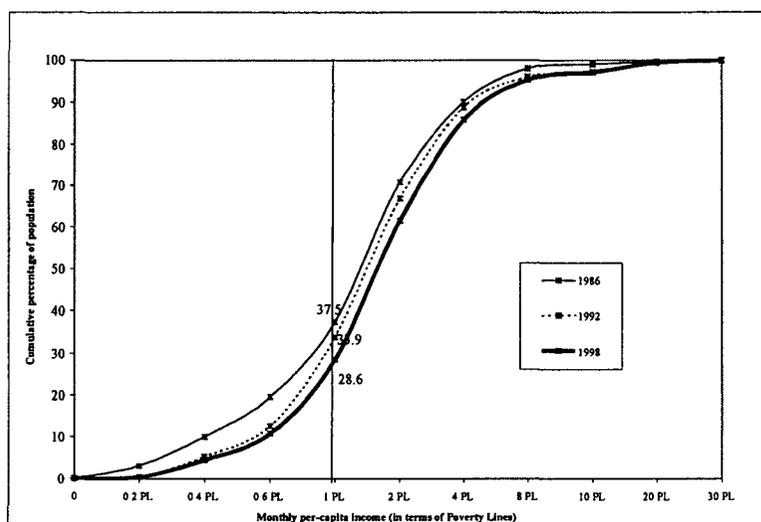
Table 1.8: Income Distribution, 1986-98

Percentage share of total income	1986	1992	1998
Highest 10 percent (1)	43.9	41.6	38.4
Lowest 40 percent (2)	10.4	12.5	12.9
Lowest 20 percent (3)	3.5	4.5	4.6
Lowest 10 percent (4)	1.1	1.7	1.7
Ratio (1)/(2)	4.2	3.3	3.0
Ratio (1)/(3)	12.6	9.3	8.4
Ratio (1)/(4)	40.1	24.9	22.0

Source: World Bank calculations.

19. **The distribution of income has also improved from 1986 to 1998 (Table 1.8).** The income ratio of the highest 10 percent of the population to the lowest 40 percent (resp. 20 percent) improved from 4.2 (resp. 12.6) in 1986 to 3.0 (resp. 8.4) in 1998. However, the percentage share of the lowest 10 percent of the population in total income has not improved over the period 1992-98.

Graph 1.2: Distribution of Income Expressed in Multiples of the Poverty Line



20. **There is a strong likelihood that the survey data on which our poverty calculations are founded under-represents Haitian migrants and their descendants; attempts to correct for this, while necessarily based on guesswork, would lead to somewhat higher poverty rates.**⁸ An estimated 500,000 Haitian-Dominicans live in the DR under ill-defined nationality status.⁹ While it is unclear to what extent this segment of the population is accounted for in household surveys, it appears safe to assume that it is largely unaccounted for.¹⁰ One method of correcting for the under-representation of Haitian-Dominicans in the sample surveys (see Box 1.2) yields poverty headcount estimates of 42.4

⁸ See Chapter 3 for a more complete analysis of this population, its legal status and its impact on the Dominican economy.

⁹ Haitian-Dominicans refers to the undocumented Haitians living permanently in the DR and children of Haitian descent born in the DR.

¹⁰ It is possible, of course, that some undocumented Haitians have been captured (but in effect misidentified) in the survey data, reporting themselves as Dominicans.

percent in 1986, 38.5 percent in 1992 and 31.1 percent in 1998 (Table 1.9 and Graph 1.3). As with the unadjusted poverty headcount ratio, although under this set of poverty headcount estimates it cannot be concluded at a conventional level of confidence that poverty has declined from 1986 to 1992, it can be concluded with reasonable confidence that poverty has declined from 1992 to 1998.

Box 1.2: Haitian Immigration to the DR and Adjustments to the Poverty Estimates

Among the three surveys used in this study, the 1998 ENGIH is the only one that includes the question of nationality. After expanding the 1998 sample survey to the whole population, the total number of persons who declare themselves to be Haitian is around 72,000. We assume here that this figure refers to Haitian immigrants who reside in the DR (i.e., comprised of seasonal agricultural workers with a working permit, students and political refugees, among others) under legal status, and that those who are undocumented have in effect not been sampled. Indeed, the Haitians who live in the DR under ill-defined legal status are not as likely to respond to the officials in charge of collecting the data for fear of being deported to Haiti. Approximately 500,000 Haitians under ill-defined legal status are estimated to live in the DR in 1998. This group is comprised of undocumented Haitians living permanently in the DR and children of Haitian descent born in the DR (Table 1).

Table 1: Subgroups of Haitian Immigrants in the DR

Subgroup	Number
Haitian Political Refugees	500-1,000
Seasonal Agricultural Workers	15,000-20,000
Undocumented Haitians living permanently in the DR	250,000-300,000
Children of Haitian descent born in the DR	250,000-300,000
Total	515,500-621,000

Source: UNHCR, *Beyond the Bateyes*, 1995 pp. 14-15.

We want to assess the impact of the presence of the 500,000 Haitians who live in the DR under ill-defined legal status on poverty. Based on the findings of the International Labor Organization (ILO), we assume that this population increased at an annual net inflow of 12,000 individuals during the period 1986-98 which allows us to estimate the number that corresponds to this segment of the population in each year under study.

Table 2: Total Population including Haitians under ill-defined Legal Status ('000)

Year	Dominicans	Haitians under ill-defined legal status	Total
1986	5,831	356	6,187
1992	7,210	428	7,638
1998	8,083	500	8,583

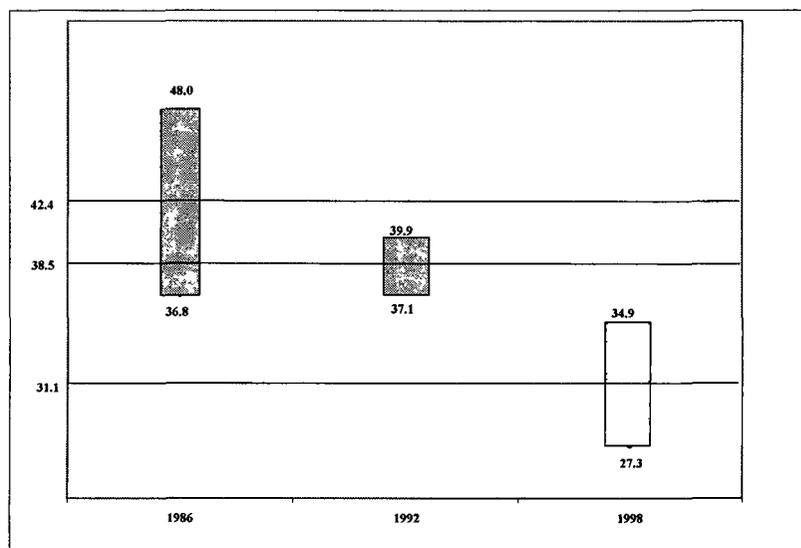
We assess the poverty rate of the Haitians living in the DR under ill-defined legal status by making a series of assumptions. Starting with the 1998 ENGIH survey, we derive the per-capita income of the households who report themselves as Haitian. Second, we adjust the per-capita income of Haitian households to incorporate the fact that typically, the whole Haitian family does not migrate from Haiti and that a number of household members still live in Haiti off remittances sent by those who are working in the DR. This assumption is supported by the fact that the average number of household members in the typical Haitian household from the 1998 ENGIH survey is 3.4 while the corresponding number in Haiti is 5.8. We then derive the per-capita income of the population who report themselves as Haitian. Using the poverty and extreme poverty lines previously derived, we estimate the poverty rate for this segment of the population to be 61 percent in 1998. We assume this poverty rate remains constant over the period 1986-98 and apply it to the group of Haitians who live in the DR under ill-defined legal status. Since the Haitians who live in the DR under ill-defined legal status are likely to be more poor than those who are under legal status, this assumption is likely to lead to an under-valuation of the poverty rates. Under these assumptions, we then compute the poverty rates and the standard errors around the poverty means for the years under study.

Table 1.9: Evolution of Poverty in the DR ^{1/}

Poverty measures	1986	1992	1998
Headcount ratio	37.5	33.9	28.6
	(2.5)	(0.6)	(1.2)
Headcount ratio adjusted for Haitians living in the DR	42.4	38.5	31.1
	(2.9)	(0.7)	(2.0)

^{1/} Standard errors shown in parentheses.

Source: World Bank calculations.

Graph 1.3: Poverty Rates and Their Margins of Error, Including Haitians

Source: World Bank calculations.

B.3. International Comparison

21. **Poverty in the DR as measured by the headcount index compares favorably to that of other countries adjusted for the level of economic development** (Table 1.10). Making an international comparison of poverty is a challenging task. Normative consumption baskets vary widely across countries and level of economic development. A standard approach to compare poverty across countries consists of defining as poor a person who lives with less than US\$60 per month (US\$2 per day) adjusted for purchasing power parity. Using this criterion, poverty as measured by the headcount index was 54.9 percent in 1986, 53.5 percent in 1992 and 33.8 percent in 1998. After controlling for the level of economic development, poverty in the DR in 1998 is about 7 percentage points lower than that which would be predicted by a cross-country regression. The DR also compares favorably in terms of child malnutrition.¹¹

22. **However, the DR compares unfavorably with other countries on a number of other poverty dimensions** (Table 1.10). The DR exhibits some of the least favorable social indicators of the Latin American and the Caribbean (LAC) region. The illiteracy rate for young people (defined as the percentage of 15-24 year olds who are unable to read and write) is 8.0 percent, which is about twice the expected value of 4.3 percent resulting from a cross country regression (average youth illiteracy for the LAC region is also 4.3 percent). The adult illiteracy rate follows a similar pattern and reaches 18.8 percent in the DR compared to a cross-country expected value of 11.9 percent and LAC average of 10.9 percent. Finally, primary and secondary net enrollment rates at 80.0 percent and 34.3 percent respectively stand much below those expected for countries at similar level of economic development and are among

¹¹ Child malnutrition can be assessed using several indicators: chronic malnutrition, determined by comparing height to expected height in the same age and gender group, assesses delays in child development. Acute malnutrition or emaciation, determined by the weight-to-height ratio in the same gender group, assesses exaggerated slimness. Global malnutrition, determined by the weight-to-age ratio in the same age group, provides a general indicator of child malnutrition. Indicators conventionally report the percentage of children under 5 who are two standard deviations below the average. Under these definitions, chronic, acute and global malnutrition indicators were 10.7 percent, 1.2 percent and 5.9 percent, respectively, according to ENDESA 96. The global malnutrition indicator is the one usually selected for international comparisons.

the lowest in the LAC region. Even though health indicators have improved over the last decades, they still fare poorly compared with other countries. About 49 of every thousand infants die before the age of one, which is higher than comparable middle-income countries (around 30 per thousand live births). Mortality for children under 5 years of age, an indicator that measures the combined effect of nutrition, access to immunization, curative health services and local conditions like access to potable water, is 61 per thousand live births, compared to a cross-country expected value of 42.4. Also, 229.3 women die in childbirth compared with an expected value of 184.6 (23 in Chile) for every 100,000 children born.

Table 1.10: International Comparison of Poverty and Social Indicators

Indicator	Actual	Expected ^{1/}	Deviation ^{2/}	Classification ^{3/}
Poverty Headcount (1998)	33.8	40.5	-6.7	+
Infant Mortality (per '000 live births, 1998)	49.0	31.8	17.2	-
Under-5 mortality rate (per 1,000)	61.0	42.4	18.6	-
Maternal mortality rate (per 100,000 live births, 1990-1997)	229.3	184.6	44.7	-
Child Malnutrition (% of children under age 5, 1992-1998)	5.9	12.5	-6.6	+
Youth Illiteracy (percent, 1998)	8.0	4.3	3.7	-
Adult Illiteracy (percent, 1998)	18.8	11.9	6.9	-
Primary Net Enrollment Ratio (percent, 1998)	80.0	94.8	-14.8	-
Secondary Net Enrollment Ratio (percent, 1998)	34.3	61.5	-27.2	-
Life expectancy at birth (years, 1997)	71.0	69.8	1.2	+

^{1/} Expected values were calculated using a cross-section model $Ind_i = \alpha + \beta_1 \cdot \log(GNPpc_i) + \varepsilon_i$, where Ind_i = indicator of i country j and $GNPpc_i$ = per-capita GNP ppp adjusted of country j. The regression for all indicators but poverty includes the following countries: Korea, Argentina, Chile, Uruguay, Malaysia, Mexico, Brazil, Turkey, Colombia, Costa Rica, Panama, Dominican Republic, Philippines, Indonesia, Jamaica, and Bolivia. For the poverty regression a larger list of 56 countries was included.

^{2/} Deviation is actual minus expected value of the indicator.

^{3/} A positive sign means that the indicator is better than expected and a negative sign means that the indicator is worse than expected.

Source: For all countries: World Development Report (World Bank, 2000). For the Dominican Republic: GNP per capita from World Development Report (World Bank, 2000), infant mortality, maternal mortality and child malnutrition from ENDESA 96; and illiteracy and net enrollment rates from ENGIH 98.; poverty headcount (1998) was estimated using ENGIH 1998, based on an international poverty line of US\$60 per capita adjusted for purchasing power parity.

C. The Relationship Between Growth and Poverty

C.1. Sources of Poverty Reduction

23. **Economic growth has been instrumental in reducing poverty in the 1990s.** Changes in measures of poverty have two proximate causes: a change in mean income (as measured by economic growth) at given income distribution among individuals, and a change in the distribution of income at a given mean income; the former can be thought of as the “growth effect on poverty” and the latter as a “distributive effect” (Table 1.11). Economic growth has been the overarching force driving poverty reduction over the period 1986-98 (the “growth effect” by itself reduced the headcount index by 9.3 percentage points over the period), while changes in income distribution had a negative impact on poverty (the “distributional effect” by itself increased the headcount index by 3.9 percentage points) during the same period. It is estimated that the richest decile of the population received 38 percent of the country’s total income in 1998 (Table 1.8). The instrumental role of growth in reducing poverty is observed across all periods for all poverty measures. This strongly suggests that maintaining strong economic growth should remain an important objective of the Government in its fight against poverty.

Table 1.11: Decomposition of Changes in Poverty Measures

	Growth effect	Distribution effect	Residual	Total
<i>Headcount index (P0)</i>				
1986-92	-6.7	4.6	-1.5	-3.6
1992-98	-3.3	-1.5	-0.5	-5.3
1986-98	-9.3	3.9	-3.5	-8.9
<i>Poverty gap index (P1)</i>				
1986-92	-3.8	0.1	-0.8	-4.5
1992-98	-1.7	0.0	-0.6	-2.1
1986-98	-5.3	-0.6	-0.7	-6.6
<i>Poverty severity index (P2)</i>				
1986-92	-2.3	-1	-0.3	-3.6
1992-98	-0.9	-0.3	0.0	-1.2
1986-98	-3.2	-1.4	-0.2	-4.8

Source: World Bank calculations.

C.2. Growth Elasticity of Poverty

24. The elasticity of poverty measures to distribution neutral growth (i.e., keeping the distribution of income constant) has decreased over the periods considered (Table 1.12). Each additional one percent of income growth reduced the poverty headcount by 2.71 percent over the period 1986-92 while it reduced it by 0.38 percent over the period 1992-98. It seems that the strong post-1992 growth has been accompanied by a deceleration of the momentum of poverty alleviation. Poverty gap and poverty severity have higher growth elasticities than the headcount index. Each additional one percent of income growth reduced the poverty gap and poverty severity index by more than one-half of one percent over the period 1992-98.

Table 1.12: Elasticity of Poverty to Distribution Neutral Growth

Poverty measure and period	Elasticity
<i>Headcount index (P0)</i>	
1986-92	-2.71
1992-98	-0.38
<i>Poverty gap index (P1)</i>	
1986-92	-3.63
1992-98	-0.57
<i>Poverty severity index (P2)</i>	
1986-92	-3.87
1992-98	-0.64

Source: World Bank calculations.

25. The elasticity of poverty to distribution neutral growth in the DR is comparable to that of other Latin American countries (Table 1.13). For all the countries considered (excluding Argentina during the period 1974-80) there was a negative relationship between income and poverty. However, poverty elasticities vary across countries from 0.38 in Colombia over the period 1978-91 to 8.54 in Argentina for the period 1994-96. The elasticity of the DR during the period 1986-92 can be compared to that of Bolivia and Chile at the beginning of the 1990s. However, the elasticity of the DR has sharply declined to 0.38 during the period 1992-98 while it has been increasing in Chile and Colombia. Interestingly, based on Argentina's experience, elasticities of poverty to distribution neutral growth are much higher (in absolute terms) during economic recessions which could indicate that the gains in terms of poverty reduction obtained during a long period of economic growth could be easily reversed as the result of a temporary recession. This again underlines the importance of maintaining high economic growth for poverty alleviation as all gains in terms of poverty can be rapidly reversed during a recession.

Table 1.13: Elasticity of Headcount Index to Distribution Neutral Growth in Latin American Countries

Country	Period	Average per-capita GDP growth (percentage)	Elasticity
Argentina	1974-80	1.00	1.00
	1980-86	-1.92	-5.53
	1986-91	-0.87	-6.36
	1991-94	7.05	-1.22
	1994-96	-0.93	-8.54
Bolivia	1990-94	1.40	-2.30
Colombia	1978-91	1.40	-0.38
	1991-95	3.85	-0.73
Chile	1987-90	4.95	-1.15
	1990-92	7.33	-1.35
	1992-94	3.54	-2.20
Dominican Republic	1986-92	3.24	-2.72
	1992-98	5.79	-0.38

Source: Ganuza, Taylor, and Moely "Política Macroeconómica y Pobreza en América Latina y el Caribe" and World Bank calculations.

C.3. Simulations for Poverty Reduction

26. **Maintaining sustained economic growth is key to reducing poverty** (Table 1.14). The poverty headcount ratio including a method of adjusting for 500,000 Haitian-Dominicans living under ill-defined legal status was estimated to be 31.1 percent in 1998. Based on the previous elasticities, we can make projections of poverty measures into the future starting with this 1998 estimate of the headcount ratio. We estimate the poverty rates, which would prevail in 2003 under different growth rates and Haitian migration scenarios, under the assumption that migration from Haiti continues and under the assumption that the income distribution effect (i.e., the change in the Lorenz curve) that prevailed in 1992-98 continues during the period 1999-03. The simulations indicate that sustaining 5 percent per-capita growth over the period 1998-03 would reduce the poverty rate substantially from 31.1 percent in 1998 to 21.5 percent in 2003 under the assumption that the current flow of Haitian migrants continues. If economic growth slows down to 3 percent over the period 1999-2003, the poverty rate would turn out to be 25.2 percent instead. The assumption of continued migration from Haiti (estimated at 12,000 per annum) somewhat mitigates the impact of growth on poverty reduction. This underlines that maintaining high sustained growth is instrumental in reducing poverty.

Table 1.14: Projected Reduction in Poverty Headcount Index under Alternative Growth Scenarios (Percent, Five year simulation)

Per capita growth assumption	1998	2003	
		No Haitian migration	Haitian migration
3.0	31.1	24.9	25.2
5.0	31.1	21.3	21.5
7.0	31.1	17.5	17.7

Source: World Bank calculations.

D. The Determinants of Poverty

27. **This section examines the determinants of poverty using data from the ENGIH 98.** The analysis is useful, first, to verify the relative role of the various factors in determining poverty status, and second, to assess the potential impact that policy-induced changes in these factors are likely to have on the probability of being poor, holding all other factors constant. This section provides the basis for an effective government poverty-reduction policy that will be developed in subsequent chapters.

28. **It is important to note the limitations of this analysis at the outset.** First and foremost, the analysis does not capture the dynamic impact of certain causes of poverty over time. Most notably, the impact of changes in economic growth - most certainly a key determinant of poverty - cannot be assessed

using this static, cross-section model. Second, the analysis is limited by the variables available at the household level from the ENGIH 98. Other factors - such as social conditions like crime and violence, social interactions such as membership in community organizations or physical conditions such as variation in climate or access to markets - could not be included due to a lack of data at this level. Finally, though theory holds that many of the variables included in the analysis do indeed contribute to (cause) poverty (or poverty reduction), the statistical relationships should be interpreted with caution since causality can run both ways for some variables.

29. **Poverty is clearly associated with lower levels or constrained use of key assets, including labor, education, physical assets, basic services, credit and social capital.** Geographic location and household size are also found to be important correlates of poverty. Table 1.15 indicates the marginal effect of each significant variable on the probability of being poor in both rural and urban areas.¹² The key findings are:

- **Even after controlling for disparities in assets, geographic location is a major factor in explaining poverty in the DR.** Living outside of urban Santo Domingo increases the probability of being poor after controlling for other factors. Also, living in rural areas increases the probability of being poor in all regions except Santiago. Living in the rural Southwest (as opposed to urban Santo Domingo) increases the probability of being poor by 29.6 percentage points. Consequently, any poverty alleviation strategy needs to pay special attention to rural areas and particularly the rural Southwest along the border area with Haiti.
- **Households with children and particularly young children tend to be poorer.** Due to higher fertility rates among the poor, a large share of children live in poverty. In fact, 39 percent of children under five (over 450,000) and 36 percent of all children under 18 (over 1.2 million) live below the poverty line. Overall, each additional child under five increases a household's probability of being poor by 10 percentage points. Family size and composition is clearly an important correlate of poverty status, suggesting a potentially strong role for family planning interventions.
- **The presence of elderly (over 65) is associated with poverty.** Overall, each member over 65 years increases the household's likelihood of being poor by 4 percentage points. This together with the fact that poverty among senior citizens over age 65 at 27 percent is close to the overall poverty for the overall population (28.6 percent) suggests lower life expectancy among the elderly poor. This can be attributed to the absence of an adequate safety net or a pension scheme which would provide the elderly with a minimum standard of living including access to health services.
- **Female-headed households tend to be poorer.** After correcting for the possibility of migration affecting household composition, households headed by a female are 13 percentage points more likely to be poor than those households headed by males. This could be attributed to the absence of adequate family planning programs and childcare centers. It also indicates that female headship could be used as a useful proxy for targeting poverty interventions.
- **Education can serve as an important elevator for escaping poverty.**¹³ The higher the educational attainment of the household head, the less likely the household is to be poor. Overall, if a household head has completed primary education, the household is 8 percentage points less likely to be poor

¹² The marginal effects are the changes in the percentage of the probability of being poor (dependent variable), due to a change of one of many independent variables.

¹³ The analysis uses the educational attainment of the heads of household. Since the educational attainment of these members precedes their current economic status, it could validly be considered as having a causality influence on poverty status (whereas the educational levels of young dependents in the household may be low because poverty prevents them from affording an education).

than if he/she had no education. Secondary education reduces the probability of being poor by about 11 percentage points whereas completing higher education reduces the probability of being poor by 18 percentage points. Regardless of the level of analysis, education is one of the most critical factors in determining poverty status - and a crucial vehicle for escaping poverty.

- **Employment in the informal sector is correlated with poverty.** Households deriving their income from the informal sector have a higher probability (8 percentage points) of being poor due to lower earnings, poorer working conditions and the absence of social security coverage.¹⁴

Table 1.15: Marginal Values for the Probability of Being Poor by Geographic Areas, 1998^{1/}
Probit estimates

Variables	Urban ^{2/}	Rural ^{3/}	National ^{2/}
Observed household poverty rate^{4/}	16.7	35.5	23.2
Santo Domingo – Rural			10.0
Santiago – Urban	10.9		14.1
Santiago – Rural		n.s.	12.5
Cibao Region – Urban	3.7		4.3
Cibao Region – Rural		n.s.	6.6
Southeast Region – Urban	3.6		4.1
Southeast Region – Rural		n.s.	9.7
Southwest Region – Urban	n.s.		10.5
Southwest Region – Rural		20.0	29.6
Number of Members in Household by age group			
Number of members 0-5 years old	7.9	14.0	10.2
Number of members 6-13 years old	5.9	11.4	7.8
Number of members 14-17 years old	3.2	5.8	4.1
Number of members 18-24 years old	n.s.	n.s.	n.s.
Number of members 25-64 years old	n.s.	-3.0	-1.6
Number of members 65 years old	4.1	n.s.	3.8
Female household head ^{5/}	11.1	15.8	13.4
Head of household/Companion education level			
Primary incomplete	-5.1	-10.2	-7.0
Primary complete	-4.9	-14.6	-7.6
Secondary incomplete	-7.7	-16.6	-10.6
Secondary complete	-7.7	-15.7	-10.6
University incomplete	-9.9	-28.3	-14.5
University complete	-13.1		-18.4
Source of income group			
Formal (vs. Informal)	-5.6	-11.1	-7.5
Agriculture represents >50% of total income	n.s.	n.s.	n.s.
Household characteristics			
No electricity	**	6.3	5.3
Source of water: non-aqueduct	8.2	15.5	10.6

^{1/} All the marginal values were calculated at the observed poverty rate using only significant variables or variables in a group with at least one significant variable (the groups can be identified by a title line before each group).

^{2/} Base Area: Santo Domingo - Urban.

^{3/} Base Area: Santo Domingo - Rural.

^{4/} This variable is the poverty rate for the household considered in the regression. It differs from the national poverty rate due to the fact that the households were not weighted to make the regression.

^{5/} Excludes female household heads who receive remittances from abroad to correct endogeneity in household composition.

n.s.: Not significant at conventional levels.

** Number of observations insufficient for estimates.

Note: All reported probabilities are significant at the 5 percent level.

Source: Estimates based on ENGIH 98.

- **Agricultural employment is not correlated with poverty.** Dependence on agriculture does not seem to increase the household's probability of being poor (as compared to non-farm earnings). This may be explained by the fact that although agriculture is a key activity of the rural population, other activities including tourism, small manufacturing, industry, and commerce are surprisingly important sources of employment and income. Indeed, only 26 percent of rural income are directly generated from agricultural activities. It is estimated that another 15 percent of rural income derive from rural

¹⁴ The recently approved social security reform provides social security coverage to those in the informal sector which may change this outcome.

manufacturing and service activities that are highly dependent on agriculture, while the remaining 59 percent derive largely from non-agricultural sources. Consequently, a strategy intended to promote faster growth and poverty reduction in the rural sector should focus not only on promoting growth in the agricultural sector, but also on a variety of other productive activities only some of which would be related to agriculture.

- Poverty is strongly correlated with the absence of basic services.** Lack of access to general services (electricity, water, sanitation, etc.) is strongly related to the probability of being poor. Only 15 percent of households in the bottom decile have indoor sanitation compared to 87 percent in the top decile. The same conclusions apply to indoor running water data: only 23 percent of the households in the bottom decile possess indoor running water versus 82 percent in the top decile. The situation is much worse in rural areas. In 1998, only 15.7 percent of rural households had indoor sanitation while 26.4 percent had indoor running water. In rural areas, households that lack electricity connections are 6 percentage points more likely to be poor than those with connections. Households that rely on non-aqueduct sources of water are 11 percent more likely to be poor than those who receive water from the INAPA water system. Since 1992, access to water and sanitation has improved across all income deciles partly due to high government spending in water infrastructure over the period. However, much remains to be done, especially in rural areas. These results also indicate that the availability of basic infrastructure could also be a useful proxy for targeting poverty intervention.

Table 1.16: Domestic Transfers and International Remittances^{1/}

Poverty Condition ^{2/}	Domestic transfers ^{3/}		International remittances	
	Recipients (% of households)	Share of recipient's income	Recipients (% of households)	Share of recipient's income
Poor	74.9	16.0	19.3	47.6
Non-Poor	67.2	6.2	19.5	24.9
Total	69.5	9.1	19.4	31.9

^{1/} Includes in-cash and in-kind private transfers.

^{2/} Adjusted for the change in household composition generated by migration of household members.

^{3/} Domestic transfers are gross (net figures are unavailable), while international remittances can be assumed to be net due to the limited remittances that originate in the DR.

Source: World Bank estimates based on ENGIH 98.

- Both domestic transfers and external remittances play an important role in alleviating poverty.** About three quarters of the poor receive transfers from domestic sources which represent 16 percent of their income while 19 percent of them receive external remittances which amount to about half of their income (Table 1.16). The shares of both domestic and international remittances decreases monotonically with household income which lowers inequality. The Dominicans living in rural areas have been migrating to urban areas while better-off Dominicans have been seeking better opportunities abroad after the end of Trujillo's dictatorial regime in 1961. International remittances alleviate the households' budget constraint and are correlated with better housing conditions, higher school attendance for girls and less child labor, which all have positive effects on poverty alleviation (Tables 1.17 and 1.18).

Table 1.17: Impact of International Remittances on School Attendance and Child Labor, 1998
Probit estimates

Variable	School attendance ^{1/}			Child Labor ^{2/}
	Boys	Girls	Total	
Gender (Girl)*			0.6 (1.1)	7.8 (7.9)
Age	1.1 (7.1)	1.1 (7.7)	1.1 (10.5)	1.9 (5.8)
Number of siblings aged 0-6	-1.3 (-3.5)	-0.8 (-2.4)	-1.1 (-4.2)	1.0 (1.7)
Number of siblings aged 7-14	0.0 (-0.1)	0.5 (1.8)	0.3 (1.3)	-0.9 (-2.4)
Number of siblings aged 15 and more	-0.9 (-3.0)	-0.3 (-0.9)	-0.6 (-2.8)	-0.4 (-1.2)
Female head of household*	-0.6 (-0.5)	1.2 (1.2)	0.5 (0.6)	-1.4 (-1.1)
Father with primary education*	-0.01 (-0.02)	1.0 (1.1)	0.6 (0.8)	0.2 (0.2)
Father with secondary education*	-0.04 (-0.03)	1.2 (1.0)	0.7 (0.7)	-1.8 (-1.2)
Father with tertiary education*	1.5 (0.6)	1.4 (0.7)	1.7 (1.1)	-5.1 (-3.2)
Mother with primary education*	3.8 (4.4)	4.1 (4.9)	4.0 (6.5)	-3.3 (-3.1)
Mother with secondary education*	5.1 (4.9)	3.2 (3.7)	4.2 (6.1)	-2.1 (-1.6)
Mother with tertiary education*	3.6 (2.4)	4.2 (3.3)	4.1 (4.1)	1.3 (0.6)
Rural*	-2.8 (-3.3)	-2.2 (-2.9)	-2.6 (-4.5)	2.3 (2.6)
Log (per-capita income)	2.8 (4.8)	1.5 (3.0)	2.2 (5.6)	-0.3 (-0.5)
Dummy x Log (remittances per capita) ^{3/}	0.06 (0.3)	0.4 (2.2)	0.2 (1.8)	-0.4 (-2.0)
Chi-square	240.6	212.9	436.8	155.3
Pseudo R-square	0.173	0.182	0.173	0.124
Mean dependent Variable (%)	92.5	93.3	92.9	7.5
N	2,606	2,380	4,986	2,345

^{1/} For children aged 5 to 14. Dependent Variable: Dummy variable which takes the value of 1 if the child is attending school and zero otherwise.

^{2/} For children aged 10 to 14. Dependent Variable: Dummy variable which takes the value of 1 if the child is working and zero otherwise.

^{3/} This dummy variable takes the value of 1 if the family receives remittances and zero otherwise.

* Coefficients represent the marginal effect of the variable on the conditional probability.

Note: Numbers in parentheses are the z value for the test of the underlying coefficient being 0.

Table 1.18: Impact of International Remittances on Housing Conditions, 1998

Parameters	Concrete walls ^{1/}	Indoor running water ^{2/}
Female head of household*	0.030 (1.75)	0.036 (2.04)
Father with primary schooling*	0.074 (3.47)	0.106 (4.7)
Father with secondary schooling*	0.14 (5.69)	0.15 (5.68)
Father with higher schooling*	0.26 (8.37)	0.28 (8.61)
Rural*	-0.35 (-19.72)	-0.28 (-15.73)
Log (per-capita income)	0.12 (11.75)	0.13 (12.37)
Dummy x Log (remittances per capita) ^{3/}	0.020 (6.48)	0.028 (8.73)
Chi-square	1,093.84	945.92
Pseudo R-square	0.1697	0.1421
Mean dependent Variable (%)	0.6067	0.5239
N	4,810	4,810

^{1/} Dependent Variable: Dummy variable which takes the value of 1 if the house has concrete walls.

^{2/} Dependent Variable: Dummy variable which takes the value of 1 if the house has indoor running water.

^{3/} This dummy variable takes the value of 1 if the family receives remittances and zero otherwise.

* Coefficients represent the marginal effect of the variable on the conditional probability.

Note: Numbers in parentheses are the z value for the test of the underlying coefficient being 0.

Annex 1.1: Poverty Reports in the Dominican Republic, 1984-2000
Poverty Rate by Survey (Extreme Poverty Rate appears in parentheses)

Source	Unit of Analysis	Survey Used for the Analysis	Method	1984	1986	1989	1991	1992	1993	1996	1998		
National													
Del Rosario, G. (1993)	Household ^{1/}	1984 CB	Poverty line	60.0 (20.0)									
Swindale, A. (1986)	Population ^{1/}	1986 Tufts University	Poverty line		33.3 (17.3)								
Psacharopoulos (1989)	Household ^{1/}	1989 CB	Poverty line			24.1							
Central Bank (1989)	Population ^{1/}	1989 CB	Poverty line			29.8 (20.2)							
Gamez, S. (1993)	Household ^{1/}	1984 CB	Poverty line	39.2 (11.8)		51.7 (24.5)							
Dauhajre, et al. (1994)	Population ^{1/}	1989 CB	Poverty line		18.3 (10.5)	24.5 (13.7)		20.6 (9.0)					
		1986 Tufts University.											
		1992 FEyD											
ONAPLAN	Household	1991 ENDESA	Multivariate Analysis				54.8 (19.7)		59.6 (19.8)	55.7 (18.5)	51.8 (14.6)		
		1993 National Census											
		1996 ENDESA											
		1998 CB											
Central Bank (1999)	Household ^{1/}	1992 FEyD	Poverty line					31.7			21.5		
World Bank (2001)	Population	1986 Tufts University	Poverty Line		37.5 (8.8)			33.9 (7.3)			28.6 (5.1)		
		1992 FEyD											
		1998 CB											
Urban													
Del Rosario, G.	Same as National			56.0 (11.0)									
Swindale, A.					23.7 (11.0)								
Central Bank						27.8 (18.5)							
Gamez, S.				27.4 (5.2)		49.1 (23.1)							
Dauhajre, et al					11.7 (7.1)	23.3 (12.7)		10.9 (5.0)					
Central Bank (1999)								19.5				15.1	
World Bank (2001)						28.5 (6.1)			19.3 (4.1)				20.5 (2.7)
Rural													
Del Rosario, G.	Same as National			64.0 (29.0)									
Swindale, A.					43.5 (24.3)								
Central Bank						33.9 (20.1)							
Gamez, S.				51.6 (18.7)		58.6 (28.3)							
Dauhajre, et al					24.5 (14.1)	27.4 (16.3)		29.8 (12.3)					
Central Bank (1999)								44.9				32.6	
World Bank (2001)						47.3 (11.6)			49.0 (10.6)				42.1 (9.0)

^{1/} No adjustment factors were used.

^{2/} Adjustment factor = 1.379.

^{3/} Adjustment factors of 1.5152 and 1.158 in 1986 and 1989 respectively.

^{4/} Adjustment factors of 1.08 in 1992 and 1.00 in 1998.

Annex 1.2

Poverty Measures: Measurement Issues

1. With the conceptual issues in mind, we assume that we are able to define a poverty line, which is an income (or expenditure) threshold that is regarded as minimally necessary for “adequate” participation in economic life. People below this threshold are defined to be poor.
2. Consider an economy with n individuals where y_i denotes the income of individual i . Let p be the poverty line. The question we ask is how we can measure poverty?

Headcount ratio. One natural measure is simply to count the number of people below the poverty line, which is the headcount (HC). If we are interested in the relative incidence of poverty, we might divide the number of poor by the population that is the headcount ratio (HR).

$$H R = \frac{H C}{n}$$

3. An obvious problem with the headcount ratio is that it fails to capture the extent to which individual income (or expenditure) falls below the poverty line.
4. Importantly, the use of the headcount as a measure of poverty systematically biases policy in favor of individuals who are very close to the poverty line. Since these people are the less expensive to get out of poverty, a government whose only objective is to reduce headcount poverty may focus on them exclusively.

Poverty gap ratio. The poverty gap ratio corrects for this drawback and captures more directly the acuteness of poverty. The poverty gap ratio (PGR) is defined as the ratio of the income (or extra consumption) necessary to bring all poor people to the poverty line to the total income of the poor if they were all brought at the poverty level. Thus, the poverty gap ratio is defined by

$$P G R = \frac{\sum_{y_i < p} (p - y_i)}{H C \cdot p}$$

Income gap ratio. Another way to partially offset this bias, and take into account the extent of poverty, is to use a measure of shortfall from the poverty line as a percentage of total income. The income gap ratio is defined as the ratio of the income (or extra consumption) necessary to bring all poor people to the poverty line to total income. The reason for dividing by total income is that the ratio is an indication of how large the poverty gap is with respect to resources that potentially may be used to close the gap. In this sense, the income gap ratio is not really a measure of poverty itself, but a measure of the resources required to eradicate it. The income gap ratio (IGR) is defined by

$$I G R = \frac{\sum_{y_i < p} (p - y_i)}{\sum_i y_i}$$

5. A problem with the income gap ratio is that it may be made small by the presence of wealthy individuals. Indeed, some large incomes that stand above the poverty line increase the denominator while the numerator – which only takes into account the poor – remains unchanged.

6. The poverty gap ratio and the income gap ratio avoid the biases in policy, which would lead to favor the individuals who are very close to the poverty line. However, both the headcount and the poverty gap measures share an additional drawback. These measures ignore the important issue of relative deprivation among the poor. Indeed, a transfer of resources among the poor (as so long as they remain below the poverty line) does not affect these measures.

7. Economists have developed poverty measures that address this issue i.e., such that a transfer of income from any person below the poverty line to anyone less poor and which keeps the set of poor unchanged must raise poverty (weak transfer principle). The best known measures, which address this distributional issue, are in the class proposed by Foster, Greer, and Thorbecke [1984]. The poverty measures called the Foster, Greer, and Thorbecke (FGT) measures they proposed are:

$$P_{\alpha} = \frac{1}{n} \cdot \sum_{y_i < p} \left(\frac{p - y_i}{p} \right)^{\alpha}$$

8. For $\alpha = 0$, the measure P_0 (**Headcount index**) is just the **headcount ratio**. For $\alpha = 1$, the measure P_1 (**Poverty gap index**) is proportional to the poverty gap ratio. As α rises beyond 1, larger poverty gaps begin to acquire greater weight and the measure become increasingly sensitive to these gaps and, therefore, to questions of distribution.

9. The case $\alpha = 2$ is of separate interest. It marks the boundary between poverty measures that not only satisfy the transfer principle, but also satisfy the principle of transfer sensitivity, namely, a given regressive transfer between two poor people must matter more when both (starting) incomes are reduced equally.¹ The transfer-sensitivity principle is satisfied if and only if $\alpha > 2$. At $\alpha = 2$, the measure P_2 is the **poverty severity index**, which is just about insensitive to the principle.

10. The FGT family of poverty measures also satisfies a convenient decomposability property since these poverty measures can be decomposed into contributions from different subgroups which is informative when monitoring changes in poverty. If the aggregate poverty measure can be written as a weighted average of the poverty measures for the rural and urban sectors, or for household by age, or by occupation of the head, then changes over time can be similarly decomposed thus helping to identify groups that are particularly at risk, as well as sometimes pointing to the underlying mechanisms. In particular, if sectors are denoted by s , and then there are S of them, we can write

$$P_{\alpha} = \frac{1}{n} \cdot \sum_{s=1}^S \sum_{y_i < p} \left(\frac{p - y_i}{p} \right)^{\alpha} = \sum_{s=1}^S \left(\frac{n_s}{n} \right) \cdot P_{\alpha}^s$$

where n_s is the number of people in sector s and P_{α}^s is the Foster, Greer, and Thorbecke index for poverty within the sector. Consequently, changes in aggregate poverty can be assigned to changes in sectoral policy measures or to changes in the proportion of people in each sector.

¹ This is called the weak transfer principle because it restricts consideration of transfers to those occurring between poor people.

2. UNEQUAL OPPORTUNITIES: THE ASSETS OF THE POOR

1. **The problems of poverty in the DR largely reflect underlying disparities in economic opportunities.** The distribution of key assets - labor, human capital, physical assets, basic infrastructure, financial assets including pension and insurance - is highly unequal. These disparities are most prevalent between the poor and the non-poor, but also manifest themselves in different geographic areas. This chapter reviews the disparities in each of these key assets. Note that the unemployment rates mentioned in this chapter are based on the 1998 ENGIH survey and should be used more for comparative purposes across groups than as absolute rates.¹ The next chapter establishes the links between disparities in the distribution of assets and macroeconomic distortions in the Dominican economy, as well as the impact of Haitian migration.

A. Labor

2. **Labor is the poor's most abundant asset.** Although poverty is measured better by total consumption rather than income (see Chapter 1), income is key in determining consumption levels, and hence poverty status. Moreover, labor is the poor's primary means of generating income. Nonetheless, the poor are constrained in their use of this key asset, as reflected in:

- **Lower labor force participation among the poor than the non-poor.** The analysis of the 1998 ENGIH indicates that the poor are less likely to enter the labor force than their non-poor counterparts (Table 2.1). While 61 percent of the non-poor enter the labor force, this proportion declines to 49 percent for the poor.
- **Lower labor force participation among women and particularly poor women.** Women are less likely to enter the labor force than men and poor women are even less likely to enter the labor force. Being a poor woman (as opposed to a non-poor man) decreases the likelihood of entering the labor force by 56 percent. This result is somewhat surprising, given that the mobilization of female workers is a common household response to poverty and vulnerability. It could result from the higher fertility rates among the poor, and hence larger domestic responsibilities, combined with a general lack of childcare centers and access to other basic services.
- **Participation in the labor force is positively correlated to education above the primary level, to being the head of a household and being single, but negatively correlated to the presence of elderly household members, the fact that one receives remittances from abroad or of residing in urban areas.** The probability of participating in the labor force is positively related to post-primary education. Having completed primary education does not have a significant impact on the probability of participating in the labor force. However, having completed secondary education (resp. university

¹ In this section, based on the 1998 ENGIH survey, unemployment is defined as the proportion of the EAP (Economically Active Population) not working who would be willing to work immediately. This definition has some shortcomings. First, it does not require that the person has actively sought a job to be classified as unemployed. Second, it classifies a person who declares that he/she would accept to work without specifying any salary level as unemployed. Under this definition, unemployment at 14.7 percent is high. Using the same definition of unemployment, but using another survey, the Central Bank reported in *Mercado de Trabajo 1996-1999* that the unemployment rate was 14.4 percent in 1998. A more conventional definition of unemployment (defined as open unemployment and recently introduced by the Central Bank in *Mercado de Trabajo 1996-1999*) is used in Chapter 3. Open unemployment is defined as the proportion of the EAP not working and actively seeking a job, over the four-week period preceding the survey. This definition reflects more closely what is the usual understanding of unemployment. Under this definition, unemployment was 5.9 percent in 1998 according to *Mercado de Trabajo 1996-1999*, and 11.5 percent according to the 1998 ENGIH survey. The labor survey from *Mercado de Trabajo 1996-1999* has been specially designed to analyze the labor market and presumably more accurately reflect the employment situation. Consequently, the unemployment rates mentioned in this chapter need to be used more for comparative purposes across groups than as absolute rates.

education) increases the probability of being in the labor force by 8.8 percent (resp. 15 percent). On the other hand, receiving remittances from abroad decreases the probability of being in the labor force. This finding is consistent with the fact that remittances help reduce the households' budget constraints. The presence of the elderly in the household also has a negative impact on the probability of participating in the labor force. In the absence of adequate programs to protect the elderly, having to care for older household members may prevent others from participating in the labor force.

Table 2.1: Determinants of Probability to Participate in the Labor Force, Population 25-64, 1998

	Change in probability
Primary ^{1/}	0.031
Secondary ^{1/}	0.088***
Vocational ^{1/}	0.13***
University ^{1/}	0.15***
Post-university ^{1/}	0.12***
Age 30-39	0.0090
Age 40-49	-0.026*
Age 50-59	-0.16***
Age 60+	-0.36***
Single	0.034***
Heads of Household	0.15***
Rest of urban	-0.038***
Rest of rural	0.013
Number of Members:	
Ages 0-5	-0.0045
Ages 6-13	-0.010**
Ages 14-17	0.018***
Ages 18-24	0.0097*
Ages 25-64	-0.00094
Ages 65+	0.0098
Remittances from abroad	-0.094***
Poverty condition and gender	
Male poor	-0.10***
Female non-poor	-0.34***
Female poor	-0.56***

^{1/} Corresponds to complete levels.

Note: ***, **, and * represent significance at 99 percent, 95 percent, and 90 percent, respectively.

Source: World Bank estimates based on ENGIH 98.

- **Higher rates of unemployment among the poor.** The unemployment rate decreases monotonically with income (Table 2.2). Unemployment among the poor is 24.1 percent as compared with 12.2 for the non-poor.
- **Higher rates of unemployment among the urban poor.** The poor are much more likely to be unemployed than the non-poor in urban areas (Graph 2.1). Unemployment is largely an urban phenomenon in the DR, with an unemployment rate of 16.7 percent compared to 11.3 percent in rural areas and 6.6 percent in the bateyes, which is perhaps due to the fact that the rural poor cannot afford unemployment.² Unemployment among poor city-dwellers is more than twice the rate for non-poor urban residents.
- **Higher rates of unemployment among the young (15-19 years of age),** particularly urban youths and young women (the unemployment rate reaches 50 percent among this group), which suggests potential difficulties in the transition from school to work (Graph 2.1).

² *Bateyes del Estado*, Argelia Tejada Yanguela, USAID (February 2001).

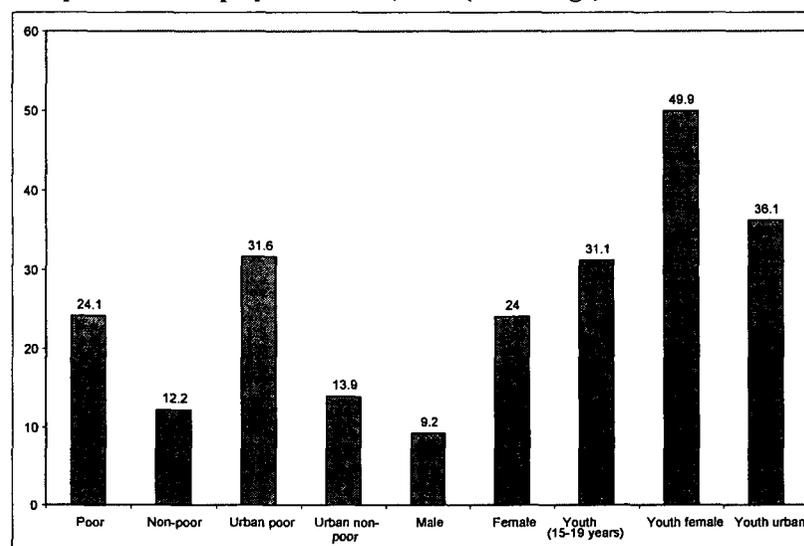
- **Low productivity among the poor.**³ The poor work more total hours than the non-poor (the number of hours worked decreases monotonically with income), which most likely indicates low productivity among the poor.⁴

Table 2.2: Unemployment and Underemployment by Income Decile, 1998

	Poor	Non-Poor	All
Unemployment rate (%)	24.1	12.2	14.8
Number of weekly hours worked ^{1/}	48.0	37.6	40.7
Employment in informal sector (%)	77.0	58.9	61.6

^{1/} Refers to main occupation only.

Source: World Bank estimates based on ENGIH 98.

Graph 2.1: Unemployment Rates, 1998 (Percentage)


Source: World Bank estimates based on ENGIH 98.

- **A strong correlation exists between poverty and employment within the informal sector.**⁵ Sixty percent of the workforce is employed in the informal sector. However, 76 percent of all poor workers are employed in the informal sector (primarily in agriculture, commerce, and services).
- **Significantly lower earnings in the informal sector for unskilled workers.**⁶ Differences in skilled workers' earnings between the formal and informal sectors are not substantial, which indicates no clear market segmentation in the skilled labor market. However, lower earnings in the unskilled informal sector (earnings for unskilled workers are about 50 percent higher in the formal sector) are not explained by differences in education and experience (Table 2.3). This result suggests that the labor market for unskilled workers may be segmented, but this hypothesis requires further investigation.⁷

³ This outcome is consistent with that reported in *Mercado de Trabajo 1996-1999* prepared by the Central Bank.

⁴ Re-ranking households by a measure of consumption, which is less likely to drop as sharply as income if the job loss is considered temporary (which in most cases it turns out to be), leads to the same picture.

⁵ The informal sector includes workers in enterprises with less than five persons, workers employed in domestic services, self-employed, merchants and salesmen, agriculture and livestock workers, drivers, artisans and operators.

⁶ Unskilled workers are workers who have not completed primary education and skilled workers are those who have completed at least primary education.

⁷ This segmentation does not result from the presence of Haitian workers, as we have made no adjustments to the sample in order to attempt to include these in the regression analysis. Nor does it result from differences in mandated minimum wages between large (mostly formal) and small (informal by definition) enterprises (see Chapter 3 for more details).

Table 2.3: Wages in the Formal and Informal Sector, 1998
(Formal/Informal Wage Ratio)^{1/}

Education	Experience (years)		
	0	5	10
None	1.41	1.51	1.58
Primary	1.30	1.40	1.45
Secondary	1.03	1.10	1.15
Technical	1.04	1.12	1.16
University	1.01	1.09	1.13

^{1/} Results are reported for complete levels only.

Note: No attempt has been made to adjust the sample in order to account for under-representation of undocumented Haitian workers.

Source: World Bank estimates based on ENGIH 98.

Table 2.4: Regression Analysis: Market Segmentation, 1998
Dependent variable: Log of Salary per Hour^{1/}

	Estimated coefficient
Constant	9.61 (118.47)
Informal sector	-0.34 (-3.44)
Primary education ^{1/}	0.30 (4.76)
Interaction primary – informal sector	-0.041 (-0.49)
Secondary education ^{1/}	0.11 (2.03)
Interaction secondary – informal sector	0.23 (2.23)
Technical education ^{1/}	0.56 (1.95)
Interaction technical- informal sector	-0.10 (-0.18)
University education ^{1/}	0.53 (8.54)
Interaction university- informal sector	0.24 (2.11)
Experience	0.067 (21.60)
Interaction experience- informal sector	-0.018 (-4.22)
Experience ²	-0.0013 (-25.31)
Interaction Experience ² - informal sector	0.00063 (9.69)
N	7,145
R-square	0.292

^{1/} Corresponds to complete levels.

Note 1: Numbers in parenthesis are the t value for the test of the underlying coefficient being 0.

Note 2: No attempt has been made to adjust the sample in order to account for under-representation of undocumented Haitian workers.

Source: World Bank estimates based on ENGIH 98.

3. Other traditionally vulnerable groups deserve special attention:

- **Women** do not appear to suffer from systematic discrimination in terms of wages (Table 2.5). Salaries of uneducated women tend to be about 20 percent higher than those of uneducated men.⁸ This outcome may reflect the fact that the wages of unskilled male workers are kept depressed by the presence of a pool of male Haitian migrants (Haitian female migration is much more limited) who are willing to work at lower wages (see Chapter 3). However, a number of factors suggest that women have fewer employment opportunities than men (lower labor force participation rates, higher unemployment rate possibly associated with additional costs of hiring women including maternity leave or perceived interruptions in daily duties due to domestic responsibilities and childcare, limited or no employment of women in certain sectors, fewer total hours worked, etc.).
- **Child labor** does not appear to be a widespread problem in the DR, but it is associated with poverty. Although 8.3 percent of children aged 10-14 years are working, only 1.9 percent of them are working full-time and not attending school. However, child labor does prevent a number of mostly poor children from attending school. Indeed, 43 percent of the 6-13-year-old children from poor households who are not attending school report that their absence is due to work-related reasons, as compared to 34 percent for the non-poor. Also, child labor in prostitution and street vending is reported to be a major problem in tourist areas.

Table 2.5: Male/Female Wage Ratio, 1998^{1/}

Education	Ratio ^{2/}
None	0.84
Primary	1.05
Secondary	1.14
Technical	0.98
University	1.10

^{1/} No experience is assumed to avoid measurement errors related to the fact that women may stop working to raise children.

^{2/} A ratio above one indicates that male wages are higher than female wages controlling for human capital.

Source: World Bank calculations based on ENGIH 98.

B. Education

4. **Disparities in education are key causes of poverty and inequality in the DR.** Education is a crucial elevator for the poor to lift themselves out of poverty. Higher educational attainment for a household head or his/her companion significantly reduces the probability of being poor. Also, a mother's education significantly affects child nutritional status breaking the intergenerational poverty cycle. Disparities in education constitute the single most important determinant of inequality. Although education is an important complement to labor, particularly in terms of enhancing its productivity and potential earnings, 77 percent of the poor (50 percent of the non-poor) above 18 years of age have not completed primary education. The household surveys reveal that although education is not clearly associated with more employment, education is strongly associated with higher earnings. However, returns on education vary significantly by educational level, with primary and secondary school generating much lower returns than higher education (to which the poor have very limited access). Each year of primary (resp. secondary) schooling yields about a 7 percent (resp. 11 percent) increase in hourly earnings while each year of tertiary education yields about 25 percent.⁹ Disparities in educational stock (literacy and attainment), current coverage, internal efficiency and quality are thus directly translated into inequalities in earnings.

⁸ Male/female wage ratio is 0.84 as seen in Table 2.5. Hence, female/male wage ratio is $1/0.84=1.19$ or 19 percent higher.

⁹ Based on regression analysis that controls for the impact of other variables like experience on earnings.

Table 2.6: Annual Rates of Return on Education by Poverty Condition and Geographical Area, 1998^{1/}
Dependent variable: Logarithm of Wage

Education ^{2/}	Poor	Non-Poor	Rural ^{3/}	All
Primary	4.2	5.5	3.1	6.5
Secondary	3.9	9.9	1.9	11.2
Technical	n.a.	21.3	14.8	22.3
University	n.a.	27.1	17.6	27.5

^{1/} Results based on wage regression for all workers.

^{2/} Completed levels.

^{3/} Excludes National District.

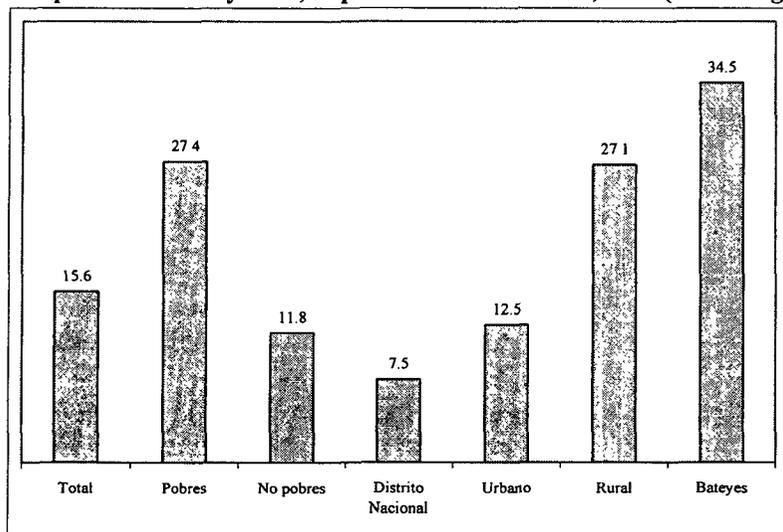
n.a.: Non-available

Source: World Bank estimates based on ENGIH 98.

B.1. Disparities in Literacy and Attainment

5. The DR has a high illiteracy rate which calls into question its ability to sustain strong economic growth (Graph 2.2). Illiteracy in the DR is quite high compared with other LAC countries. The illiteracy rate for the population over 15 years of age was 16 percent in 1998. Illiteracy in rural areas is 27 percent, which is almost twice the national level and reaches 35 percent in the bateyes.¹⁰ Also, all education indicators fare worse among the poorer segments of the population, both in urban and rural areas.

Graph 2.2: Illiteracy Rate, Population 15 and Above, 1998 (Percentage)

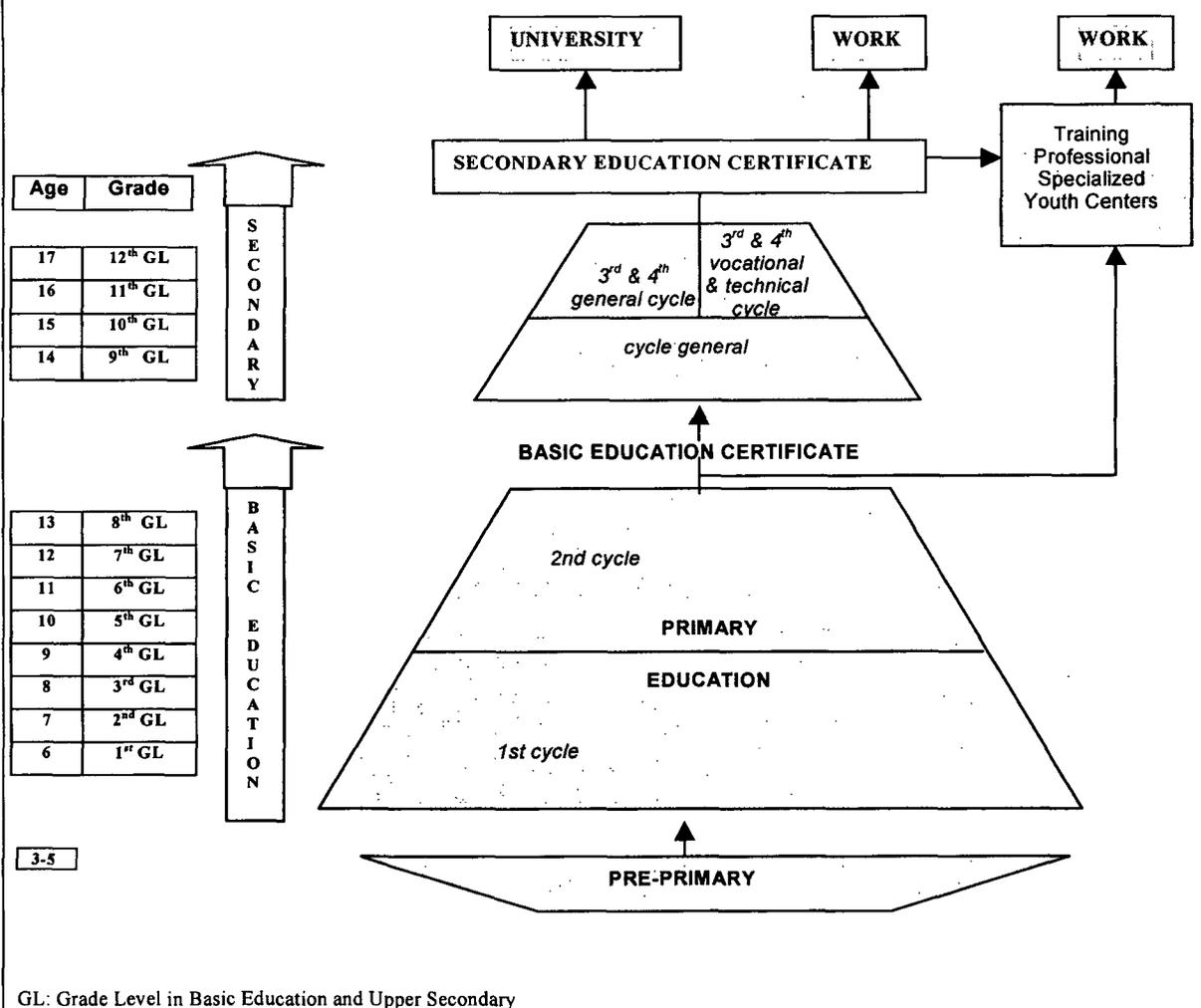


Source: World Bank estimates based on ENGIH 98 and *Bateyes del Estado*, Argelia Tejada Yanguela, USAID (February 2001).

6. Although progress has been made, the poor have less schooling than the non-poor, and the educational attainment is quite low in rural areas. In the DR, 77 percent of the poor (50 percent of the non-poor) above 18 years of age have not completed primary education. Regional disparities are considerable. In fact, 24 percent of the rural population over the age of 15 have no education, and 82 percent have not completed primary education, compared to 11 percent and 55 percent in urban areas, respectively. Also, average years of education for the working age (25-64) poor are 4.5 years compared to 7.3 years for the non-poor.

¹⁰ *Bateyes del Estado*, Argelia Tejada Yanguela, USAID (February 2001). For more details, see Annex 2.2.

Box 2.1: The Education System in the Dominican Republic



B.2. Gaps in Current Coverage

7. There are a number of gaps in current educational coverage, primarily among the poor, which can be summarized as follows (Tables 2.7, 2.8 and 2.9):

- Few **Early Childhood Development (ECD)** programs (nutrition, child-care, early educational development) currently exist and none of them are public. ECD programs provide an unparalleled opportunity to break intergenerational cycles of poverty by improving a child's lifelong potential for human capital accumulation, and hence productivity and income. However, the few existing programs are private and mostly unaffordable for the poor. While 10.8 percent of children between 6 months and 2 years from the richest income quintile attend a nursery school or childcare center, children from poor families do not attend such programs.
- **Pre-primary** coverage is low, especially among the poor. Of the 3-5 year old poor children, only about 20 percent attend pre-primary schools, compared to 48 percent for the non-poor. Public pre-

primary schools admit children who are 5 years old (although those below 5 are also accepted depending on availability of space), while private pre-primary education is largely unaffordable for the poor.

- **Primary school** coverage remains low, especially for the poor. Despite the fact that primary education is compulsory by law, primary school coverage for 6-13 year olds is 80 percent, but only 74 percent for the poor. Coverage is lower in rural areas and poor neighborhoods in peri-urban areas.
- There are large gaps in **secondary school** enrollment. The net enrollment rate of 34 percent is very low and falls dramatically among the poor.

Table 2.7: Net Coverage by Education Level, All Population (Percent)

Age group (years)	Day-care	Initial	Primary	Secondary
0-2	2	0	0	0
3-5	0	34	6	0
6-13	0	1	80	1
14-17	0	0	40	34

Source: World Bank calculations based on ENGIH 98.

Table 2.8: Net Coverage by Education Level, Poor (Percent)

Age group (years)	Day-care	Initial	Primary	Secondary
0-2	0	0	0	0
3-5	0	19	3	0
6-13	0	1	74	0
14-17	0	0	48	21

Source: Based on ENGIH 98.

Table 2.9: Net Coverage by Education Level, Rural Poor (Percent)^{1/}

Age group (years)	Day-care	Initial	Primary	Secondary
0-2	0	0	0	0
3-5	0	16	3	0
6-13	0	1	74	0
14-17	0	0	52	15

^{1/} Excluding National District

Source: World Bank calculations based on ENGIH 98.

- Access to **higher education** (university and post-university) is extremely unequal in the DR, with virtually none of the poor attending. Some 92 percent of students in higher education are not poor and 47 percent of those enrolled belong to the highest quintile of the population.¹¹ These disparities reflect inequities in higher level public education, since 44 percent of all students of higher education attend public facilities. Enrollment rates in higher education are much higher for women than men (59 percent of those enrolled in higher education are women). This is a positive development since the children of better-educated mothers (other things being equal) tend to be healthier overall and thus improves a child's capacity to learn.

8. **Reasons for low school attendance, particularly at the secondary level, represent a complex combination of supply and demand factors.** On the demand side, the high income effect on school attendance suggests that demand factors play a critical role in educational achievement: the poor may not be able to afford to send their children to school (Table 2.10). This is confirmed by the fact that "too expensive" and "difficult economic situation" were reported by households to explain the fact that their 6-13 year-old children are not enrolled in school (accounting for 16 percent of the absentees for the poor as compared to 3 percent for the non-poor). Second, low returns on primary and particularly secondary education for the poor and more particularly in rural areas where most of the poor are located lower the

¹¹ With an average total annual per capita income that is 7.0 times the poverty line.

parents' incentives to send their children to school (Table 2.6). Indeed, the impact of primary and secondary education on rural income is quite small. A reason for this might be that rural activities, in contrast with urban activities, are not particularly capital intensive and demanding of high skills—which is due in part to the migration of unskilled Haitian workers which likely depresses unskilled rural wages and dampens incentives for the modernization of agricultural production (See Chapter 3). The main value of schooling in rural areas may then be to facilitate migration to urban areas where the returns on education can be much higher. Third, school attendance depends on the family's educational background: uneducated parents are less inclined to send their children to school, thereby perpetuating the poverty trap. On the supply side, low quality of education and functional inefficiencies especially in rural areas help explain the low returns on education, and hence the low school attendance. Such problems are further exacerbated by a lack of access to educational facilities at all levels in the bateyes and at the secondary level in poor peri-urban and remote rural communities (8 percent of 14-17 year olds report that they do not attend school because it is too remote while this reason is never mentioned among the 6-13 year olds). After controlling for other factors, families living in rural areas are less likely to send their children to school.

Table 2.10: Determinants of School Attendance, 1998^{1/}

Parameters	School attendance
Female head of household*	0.049 (2.6)
Father with primary schooling*	0.023 (2.25)
Father with secondary schooling*	0.023 (1.87)
Father with higher schooling*	0.029 (1.58)
Mother with primary schooling*	0.036 (3.23)
Mother with secondary schooling*	0.048 (4.03)
Mother with higher schooling*	0.050 (3.17)
Rural*	-0.028 (-3.14)
Log (income per capita)	0.024 (4.11)
Single Father family*	-0.057 (-2.02)
Single mother family*	-0.106 (-2.96)
Dummy x Log (remittances per capita) ^{2/}	0.002 (1.06)

^{1/} For children aged 5 to 14. Dependent Variable: Dummy variable which takes the value of 1 if the child is attending school and zero otherwise.

^{2/} This dummy variable takes the value of 1 if the family receives remittances and zero otherwise.

* Coefficients represent the marginal effect of the variable on the conditional probability.

Note: Numbers in parentheses are the z value for the test of the underlying coefficient being 0.

Source: World Bank calculations based on ENGIH 98.

B.3. Disparities in Internal Efficiency and the Quality of Education

9. **Although poor children do not tend to repeat grades more than non-poor children, poor children tend to drop out more than non-poor children.** Holding students back repeatedly in secondary education is a serious problem which seems to affect poor and non-poor equally. High repetition rates most likely indicate serious inefficiencies in the quality of classroom instruction. However, poor children and those located in rural areas have a higher tendency to drop out of the educational system. Only 21 percent of 14-17 year olds from poor families were attending secondary school in 1998, while 48 percent were still attending primary school as a result of repetition or late entry,

and the remaining 32 percent had already left the formal education system (Table 2.8). These disparities in internal efficiency could arise due to differences in the quality of education or demand-side constraints.

10. The quality of education received by the poor lags behind that received by the non-poor particularly in rural areas. There are two ways to assess educational quality: the quality of learning (via standard achievement tests) and the quality of inputs (materials, books, teachers, etc.). The poor particularly in rural areas lack access to key quality-related inputs. Population-wide problems with low enrollment and repetition likely reflect serious defects in school quality - deficient teacher training, lack of school supplies, among others - combined with some access problems at the secondary level.

C. Health

11. Disparities in both health status and access to health care services are prevalent between the poor and non-poor in the DR. Good health contributes directly to individual well-being. It is also an important complement to labor in terms of its contribution to productivity.

12. Although health indicators have improved over the last decades, there remain large differences between the poor and non-poor. Infant mortality rates decreased from about 75 per thousand at the beginning of the 1970s to 49 in 1996. However, infant mortality rates vary from 45 per 1,000 in urban areas to over 65 per thousand in the rural areas along the Haitian border, where a large number of the poor are located (ENDESA 1996). The infant mortality rate is also strongly associated with the mother's educational level - and consequently to poverty - rising from 20 per thousand for mothers with post-secondary education to 85 for uneducated mothers. The main causes of infant deaths are communicable diseases (infectious and parasitic diseases) and conditions originating in the peri-natal period (diseases of the mother and obstetrical complications that affect the fetus, respiratory problems of the fetus, and infections specific to the neonate period), all of which are related to poor sanitary conditions and poverty. For every 100,000 births, 180 mostly poor women die in childbirth. Toxemia and hemorrhages account for more than 50 percent of maternal deaths in the DR reflecting deficiencies in coverage and quality of both prenatal care and care provided during childbirth and in the immediate postpartum. Other social concerns frequently reported among the poor include violence, alcoholism, drugs, and teenage pregnancy (18.8 percent of teenage girls had given birth in 1998, increasing from 13 percent in 1991).

13. While the poor are more likely to be ill than the non-poor, the former are less likely to seek medical treatment in case of illness. While a third of the population in the first quintile reported suffering from some illness, only a quarter reported so from the richer quintile (ENDESA 1996). This is due to lower sanitary conditions linked to poverty. However, only 36 percent of those in the first quintile who reported illness sought medical treatment, compared to 42 percent among the 5th quintile. The share of those seeking medical treatment is much lower among the Haitians under ill-defined legal status who must often travel at night and hide to access health care facilities.

14. The poor have less access to health care than the non-poor. Access is determined both by the physical availability of services (as measured by the distance or time needed to reach the nearest facilities) and the ability of households to pay for such services. Though these two constraints call for very different policy responses, their effect is similar for the household: an inability to afford either to travel to distant services or to pay for nearby services (or both). About 6 percent of the households living in rural areas and 2 percent of those living in urban areas report that lack of access to health care facilities is the first reason for why they did not use public services, which suggest some access problems in rural areas (ESU-96). Insufficient economic resources is one of the main reasons the poor do not seek medical treatment. Lack of economic resources prevents 25 percent of the poor from seeking medical treatment compared to 22 for the non-poor (ESU-96). Although coverage from health plans is extremely low for

the poor (according to the 1998 ENGIH only 5 percent of the poor and 23 percent of the non-poor are covered), the poor use free public services in a larger proportion. However, the use of private services by the poor may have dramatic consequences on poverty: 61 percent of poor families (compared to 46 percent for the non-poor) had to take loans or sell assets (animals and land) to cover the costs of medical hospitalization. In fact, spending on health is five times higher in absolute terms for the non-poor than for the poor (per capita US\$75 versus US\$15), even though it represents about 3 percent of income for both groups. Thus, lack of insurance and poverty limits the access of the poor to health services.

15. **The poor who do seek treatment are more likely to use public services** – such as public clinics, hospitals and health centers than their non-poor counterparts, although a substantial share of the non-poor do use public services (Table 2.11). Over 70 percent of the poor use public facilities compared to 40 percent for the non-poor.

Table 2.11: Health Services by Poverty Group and Geographical Area

	Non Poor	Poor	National District	Urban	Rural	Total
Health visits and sickness						
Coverage Rate ^{1/}	76.4	70.6	72.5	77.2*	71.1*	74.7
Place of treatment						
Public Facility (SESPAS + IDSS)	42.2	72.8	48.2	42.9	57.0	49.3
Private Facility	57.8	27.2	51.8	57.1	43.0	50.7
Public Hospital/Clinic	34.0	57.0	35.2	39.4	43.6	39.3
Public Health Center/Sub-Center	8.2	15.8	13.0	3.5	13.4	10.0
Private Hospital/Clinic/Physician	56.0	24.9	49.8	55.6	40.8	48.8
Pharmacist/Other	2.0	1.7	1.8	1.1	1.9	1.6
At Home	0.2	0.6	0.1	0.4	0.4	0.3
Constraints in use of health services						
High cost	21.9	24.6	18.1	21.4*	24.4*	22.7
Lack of access	2.8	4.4	3.1	1.8*	5.5*	3.3
Bad facility conditions	21.5	15.1	33.6	23.2*	14.3*	19.5
Percent attended by the doctor on same day	73.7	65.2	71.6	72.3*	69.5*	71.1
Private spending on health services						
% sick paying something	61.4	29.0	59.4	58.7	43.2	54.0
Private spending on health (% of income)	2.9	3.3	3.1	3.0	2.9	3.0

^{1/} Percentage of people reporting illness who had at least one medical visit.

* Includes National District.

Sources: ESU 96 and ENGIH 1998.

16. **The low quality of public health services appears to be a problem facing poor and non-poor, particularly in urban areas.** At present, there are few incentives in the public health system to ensure quality of care. A third of those who were ill but did not seek treatment in public facilities offered by SESPAS (SESPAS is the major provider of public health services) reported that it was because of the poor quality of the health services (ESU-96). Problems more commonly reported are waiting in long lines, encountering delays in urgent diagnostic exams and getting medical attention, coupled with a lack of basic supplies and medicines. Also, 65 percent of the poor versus 74 percent of the non-poor answer that they could be attended by a doctor on the same day, indicating that the public health system - which the poor use more - may be less efficient than the private health system (ESU-96). There are also congestion problems in poor rural areas where no private infrastructure is available - which leads poor and non-poor alike to use public services that are provided free of charge. This is particularly the case along the border with Haiti, where Haitians migrate to seek medical treatment unavailable in their home country.

D. *Physical Assets: Land and Housing*

17. **Lack of access to physical assets - such as housing and land - is related to poverty.** Such assets contribute to income-generating potential by providing a base for productive activities. Properties also generate rents through earnings charged to renters or via the savings from imputed rents. In addition, households can use property as collateral for leveraging credit and emergency income can also be generated through the sales of property or by borrowing against it. Finally, housing can be used as a tool for extending personal relationships, building trust and generating social capital. The ability of households to use property as an asset depends largely on their availability, quality, the security of tenure, and the flexibility of the land markets.

18. **The poor tend to live in much lower-quality housing than the non-poor.** The ENGIH 1998 survey indicates that 63 percent of the non-poor live in houses made of concrete walls as compared to 35 percent for the poor and 23 percent for the rural poor. Also, 15 percent of the poor (23 percent of the rural poor) live in houses with a mud floor. The materials used to construct these homes are less durable than for the housing of the non-poor. Also, in the absence of a settlement policy, a large number of the poor continue to live and settle in high-risk flood areas. For instance, over 300,000 people - more than 11 percent of Santo Domingo's population - live on the margins of the flood prone, and highly polluted Ozama River (see Annex 2.1). Although no data is available, the situation appears to be much worse for the rural poor. Finally, the homes of the poor tend to be quite crowded (averaging 3.2 members per bedroom, as compared with 2.0 members among the non-poor).

Table 2.12: Housing Conditions, 1998

	All	Non-poor	Poor	Urban poor	Rural poor
External Walls					
Block	56.4	63.2	34.6	49.5	22.7
Wood	16.7	14.9	22.7	22.3	23.0
Mixed (Block and wood)	6.8	6.3	8.5	5.7	10.6
Palm wood	15.7	12.4	26.3	14.9	35.3
Zinc	1.4	1.0	2.5	3.3	1.8
Ceiling					
Concrete	25.0	30.2	8.2	12.1	5.1
Zinc	68.6	65.2	79.8	81.3	78.7
Floor					
Cement	74.2	72.0	81.2	88.1	75.8
Mud	6.8	4.1	15.4	5.8	22.9
Persons per bedroom	2.3	2.0	3.2	3.0	3.3

Source: ENGIH 1998.

19. **The housing situation is further complicated by the existence of catastrophic risks.** The DR is located in a region prone to hurricanes and vulnerable to earthquakes.¹² Currently, a uniform set of building codes exists in the DR, which is similar to that of California. However, the building codes are not enforced and most buildings are not in compliance with them. As a consequence, a large number of houses are constructed with deficient materials and inadequate construction that would not be able to withstand the fury of hurricanes, floods and mudslides and to a lesser extent, the devastating impact of an earthquake. Estimates by the *Consejo Nacional de Asuntos Urbanos* (CONAU) indicate that Hurricane Georges, which hit the DR in 1998, affected 170,000 houses, most of which were concentrated in flood-prone poor areas.

¹² Earthquakes are expected to occur every 60 years and have the potential to reach 8.2 on the Richter scale. The most recent earthquake occurred in 1946.

20. **The distribution of land is highly unequal.** Less than 50 percent of the rural population has access to land and land ownership is extremely concentrated. About 40 percent of households that have access to land own less than 1.2 hectares and 74 percent own less than 3.1 hectares. That is, up to three-quarters of the households that own land can be considered *minifundistas* because they do not have sufficient productive land, which would allow them to move out of poverty. At the other extreme, 700 farmers representing 0.3 percent of all farmers, control more than 15 percent of total agricultural land, with the largest 50 producers controlling, on average, more than 1,000 hectares each. In fact, about 200 families control about 600,000 hectares of land equivalent to 50 percent of all the arable land of the country while the law limits land ownership to a maximum of 66 hectares per person. According to the *Junta Agroempresarial Dominicana*, another 15-20 percent of agricultural land is still owned by the government.¹³

21. **A high proportion of land is occupied without legal titles.** Only about 40 percent of the land used by private farmers is legally titled. Although poor smallholders occupy a significant part of the untitled land, relatively few large landowners also occupy a large proportion of untitled land. Also, much of the untitled land currently used by large farmers has been obtained through simple occupation of public lands, and at times, usurpation of land from poor rural communities and individual producers, through legal or illegal means. The problem of lack of titles affects not only the farming sector but also the rural non-farm enterprises. In 1998, less than 40 percent of the rural non-farm microenterprises had legal titles on the premises where the firm operates.

22. **Lack of land titles typically has several negative effects on the productivity of land and on farmers' other assets.** Indeed, estimates of income-land elasticity in rural areas in the DR is 0.13 percent when farmers do not have land titles, while it increases to 0.17 percent with land titles (Table 2.13). The lack of property titles:

Table 2.13: Determinants of Per Capita Income, 1992^{1/}

Explanatory variable	Rural Households Coefficient
Constant	6.03 (41.57)
Ln (Lpc) ^{2/}	0.13 (3.84)
Has land title . Ln (Lpc)	0.042 (1.73)
1-8 years of schooling	0.32 (2.98)
9-12 years of schooling	0.46 (2.01)
Number of observations	1,186
R-squared	0.14
F-statistic	10.50

^{1/} The dependent variable is the natural logarithm of monthly per-capita income.

^{2/} Represents the natural logarithm of landholding per-capita.

Note: Numbers in parenthesis are the t value for the test of the underlying coefficient being 0.

Source: Estimates based on 1992 FEyD survey.

- **reduces the value of the property.** The absence of legal titles reduces property value and therefore reduces sales proceeds that could be used for emergency income,

¹³ This land belonged to the dictator Trujillo and ended up in public hands when Trujillo was assassinated in 1961.

- **reduces access to credit from the formal sector.** Without legal titles, farmers cannot use their land for collateral purposes to obtain credit from the formal sector. This forces them to seek credit from informal sources at much higher rates of interest, or to go through the production process with little or no liquidity, which makes them extremely vulnerable to any negative shocks, such as crop diseases or hurricanes.
- **reduces farmers' incentives to invest in land-attached capital goods** (such as tree planting, irrigation, infrastructure, etc.). No legal security of tenure increases the risk of losing entitlement and being evicted, which decreases the incentives to invest.

E. Basic Infrastructure

23. **The poor – particularly the rural poor – lack access to many basic services** (Table 2.14). Households without basic services (water, sanitation, electricity, telephones) are more vulnerable than those who command these services. Potable water and sanitation services contribute directly towards welfare and health status. Electricity and telephones help households use their home productively for income generation.

Table 2.14: Disparities in Basic Infrastructure Services: Key Gaps Facing the Poor in the DR, 1998 (Percent)

	All	Non-poor	Poor	Urban poor	Rural poor
Running water:					
Indoor	49	56	27	41	16
Outdoor (< 100m)	30	27	39	44	35
Outdoor (> 100 m)	5	4	10	7	12
Public connection to water	72	77	56	74	41
Sanitation services:					
Formal connection (sewer/septic)	45	53	20	38	6
Latrine/pit	47	42	66	55	74
No facility	8	6	15	7	21
Garbage collection	54	60	35	67	10
Energy:					
Electricity lighting in home	88	90	79	100	62
Gas lighting	65	19	34	31	57
Gas for cooking	85	89	73	89	60
Wood for cooking	3	2	6	5	8
Telephone connection	29	36	9	17	2

Source: ENGIH 98.

24. **Although the majority of the poor have access to water pipes (indoor or outdoor), a large share of the rural poor lack access, and service quality problems abound.** Three-quarters of the poor receive water via pipes, although a majority among them do not receive water in their homes; the remainder collect water from wells, rivers, cisterns or other sources. The situation is worse for the rural poor: only 16 percent of them have indoor running water. The lack of access to water in rural areas is a likely cause of the high levels of diarrhea among children. Although the government is undertaking a number of projects to extend water access to rural communities (especially to the Southwest region), there are problems of coordination in service delivery and approach. Also, although access to water has improved since 1992 across all income deciles due to higher government spending in water infrastructure, problems with availability and service quality (irregular flow, inadequate water pressure, contamination and pollution problems, and inadequate maintenance) still prevail essentially in rural areas.

Box 2.2: Incomplete Cost Recovery for Water and Electricity

Incomplete cost recovery for basic services leads to waste, and lower quantity and quality of service provision.

Water. Water and sanitation services are currently provided by state owned utilities. Four companies cover the larger urban centers (CAASD in Santo Domingo, CORAASAN in Santiago de los Caballeros, CORAAMOCA in Moca, and COAAROM in La Romana) and service is provided by INAPA in the rest of the country. Approximately 80 percent of the urban population has access to water services, but approximately 65 percent of water is unaccounted for in Santo Domingo and 44 percent in Santiago. Cost recovery is extremely low, characterized by implicit, non-targeted and generally chaotic subsidies (payment amnesties and debt waivers are common). Out of 350,000 connections, CAASD bills approximately 60,000 and collects from about 40,000. While much of the collection problem is due to the absence of a self-financing policy in the sector, poor service quality makes it difficult to enforce payment.

Electricity. Out of the 235,000 non-electrified households in the country, almost all are found in rural areas. Rural areas are characterized by high dispersion and limited capacity to pay. Rural electrification is currently not considered a priority by the government due to the low electric spending of rural populations and high investment costs of grid expansion.

25. There are large disparities in access to sanitation services by area and by poverty group. Overall, 45 percent of the Dominican population has connections to a sewer system or a septic tank. However, 15 percent of the poor (21 percent in rural areas) do not have access to a formal toilet system, pit toilets or latrines. In urban areas, half of the poor households rely on pit toilets or latrines, raising public health concerns. Sanitation connections are rare in the countryside, particularly among the poor. With respect to garbage collection services, differences are largely geographic, with very limited coverage in poor rural areas and bateyes.

Box 2.3: Transportation Bottlenecks and the Urban Poor

Despite considerable investments in road infrastructure in the DR, urban communities appear to indicate inadequate public services and traffic congestion as concerns. The urban poor rely heavily on public transportation, and approximately half of all urban residents depend on it for their work commute. Commuting times can be lengthy, especially during rush hour. The time spent commuting thereby curtails the time available for other, more productive activities.

In the larger cities of Santo Domingo and Santiago, public transportation is comprised of public buses (administered by *OMSA, la Oficina Metropolitana de Servicios de Autobuses*), public buses or minibuses operated by private individuals, public cars (*conchos*) and public motorcycles (*motocochos*). The OMSA bus system is maintained by the State and operates under low, uniform costs. Public cars and motorcycles, however, are operated by individuals along specific routes throughout the city and are administered by syndicates. *Concho* drivers are politically well-organized, are licensed by local authorities and as private providers, are required to pay certain fees for the use of the routes they are assigned. Another group of individuals, *piratas*, often serve the same routes as *conchos* but are not authorized and operate informally. Relatively low fixed prices and a complex system of licensing for entry and route assignments have dampened competition in service provision and greatly reduced the quality of services. Such circumstances have fostered the development of unions formed by *concho* operators, as well.

Subsequent to the August 2000 domestic oil price increases, the country experienced large increases in private urban transportation prices. Compensatory measures were taken to mitigate the impact of price increases on the poor. Subsidies were provided for public buses (operated by *OMSA*) and as a result, public bus prices did not increase. However, *conchos* on short routes are now charging DR\$5, up from DR\$4, compared with DR\$3 prior to August 2000. Minibuses are charging DR\$6, up from DR\$5, compared with DR\$4 prior to August 2000. OMSA buses continue to charge DR\$3 for their long routes. The Government continues to explore ways to reduce distortions in the public transportation system, improve the overall quality of service provision, and strengthen the regulatory framework for vehicle standards, inspection, and pollution control.

26. While virtually all urban residents have access to electricity lighting, coverage is more limited in rural and poor areas. The majority of the poor in rural areas rely on gas (propane and kerosene) lighting. There used to be major service quality problems with prolonged blackouts in all areas, particularly rural ones. Reform measures initiated in 1997 sought to reform the sector by making it more competitive. However, the absence of the definition of a sectoral policy and regulation makes the

electricity sector highly dependent on public subsidies and reduces the funds which could become available for the sector. Low cost recovery and large inefficiencies in production and transmission still prevail.

27. **Virtually no poor households have telephone connections.** Only 9 percent of poor households report owning telephone lines and only two percent of the rural poor have a line.

F. Financial Assets, Pension and Insurance

F.1. Financial Assets

28. **The poor are less able to save than the non-poor.** Savings can be an important asset for the poor, for consumption smoothing and investment purposes. However, the 1998 ENGIH indicates that current savings of the poor are negative, which implies that they either sell assets or accumulate debt, while the non-poor tend to accumulate current savings. Interestingly, current savings do not differ much in rural versus urban areas.

29. **Poor households are directly affected by the existence of market failures in the financial market.** Borrowing and making purchases on credit are an important way for households to smooth their consumption and invest for future earnings potential. However, poor households are restricted in their access to credit. Information constraints, lack of guarantees including the absence of legal titles to be used as collateral, greater perceived risks by financial institutions of their economic activities and the existence of relatively large fixed costs (in relation to loan size) in processing small loans all present obstacles to lending to the poor. This turns into a vicious circle: poverty causes disadvantages in markets that further reduce the income of the poor; and because they are poor, they cannot overcome market obstacles that make them poorer. Some evidence is:

- **Poor rural farmers and microentrepreneurs have very limited access to formal credit.** According to the 1992 survey, less than 20 percent of producers that own land received any credit. In addition, most of those that received credit were not small farmers but instead medium and large farmers. Indeed, average farm size of the households that received credit from either public or private sources was about 8 hectares, while that of those who did not have any credit was 2.4 hectares on average. Less than 16 percent of rural non-farm microenterprises receive credit (Fondomicro, 1998).
- **Public (subsidized) rural credit is not well-targeted to poor farmers and poor microentrepreneurs.** The government through the state owned *Banco Agrícola de la República Dominicana* (BARD) is the main supplier of public credit to the rural sector. Total BARD credit in 1999 was about US\$150 million, of which only about 20 percent was directed to farmers owing less than 1 hectare of land while the rest benefited medium size farmers. In addition, out of an estimated 80,000 peasants owing less than 1 hectare each, less than 3,000 received the benefits of publicly subsidized credit. Therefore, most of the public subsidized credit is allocated to non-poor farmers while only a small fraction of the poor peasants receive any public credit support at all. Microenterprises have even less access to credit from public sources than farmers; less than 3 percent of them received credit from public sources. Public subsidized credit to microenterprises through the *Programa para la Micro, Pequeña y Mediana Empresa* (PROMIPYME) is also largely directed at the non-poor.

F.2. Pension

30. **Pension coverage is extremely low among the poor who have to remain working and rely on relatives and neighbors for support.** In 1998, only 6.0 percent of the elderly poor (over 65 years) received pension payments compared to 15.2 percent for the non-poor. Also, only 28.5 percent of the persons aged 18-60 contribute to a pension plan. The ENGIH 98 survey reports that almost all elderly-headed households living in poverty receive transfers from relatives and neighbors. More than half of the elderly poor were employed or seeking employment. The recently approved Social Security Law (May 2001) is expected to provide universal pension coverage, including to the poor (see Annex 3.1).

F.3. Insurance

31. **Poor households are also more affected by the occurrence of catastrophic events like earthquakes and hurricanes.** Recent hurricanes such as David in 1978 and especially Georges in 1998 have caused massive damage to crops, livestock and housing. There is no documentation of the impact of the latest hurricane on poverty. However, given the extent of the damage, its impact on poverty must have been substantial. The absence of mitigation measures (enforcement of building codes, building permits, etc.) and catastrophic crop insurance, coupled with the lack of access to catastrophic housing insurance for the poor and their location in risk-prone areas help explain the devastating impacts of catastrophic events.

32. **The poor do not have any insurance against accidents.** An accident affecting the bread winner at his/her place of work in the absence of workers' compensation is sufficient to bring a family into poverty. All commercial and industrial enterprises with more than three employees are legally required to buy accident risk insurance, as are agricultural enterprises with more than five employees and construction companies. However, a limited number of workers have accident coverage while the poor do not have such protection.

Annex 2.1
Social Assessment in Urban Settlements along the
Ozama and Isabela Rivers in Santo Domingo

1. As part of the background work for this poverty report, a survey of 2,703 households was conducted in one of the poorest neighborhoods in Santo Domingo. This area, comprised of nine communities along the banks of the Ozama and Isabela rivers (beginning with La Zurza in the north to La Ciénaga in the south) was mostly settled in the late 1970s and early 1980s, largely by rural migrants. Today it is home to 11 percent of the city's population – 300,000 people crowded in less than 1.6 percent of the city. Most residents were born there, and slightly more than half of them live below the poverty line of DR\$1,080. Average per capita income is higher, however, at DR\$1,655.

2. **Integration in the city.** The zone is well integrated to the city as 69 percent of residents are employed outside the area. It lies in a desirable central location, close to jobs and key services (primary school, health center, police post, public transportation and market). Average time to work is less than half an hour (approximately 26 minutes), which is short for a city as congested as Santo Domingo. The average expenditure for commuting is a low DR\$8.7 (approximately US\$0.55) for a one-way trip. The majority (47 percent) take the bus to work while another 24 percent walk.

3. **Household location and segmentation.** The neighborhood is in fact a collection of several worlds, determined by safety of location. The safer locations (consolidated, downhill but safe) contain the households that have been in the area and in their house the longest. While there isn't much difference in home ownership, those in safe consolidated areas are nearly twice as likely to formally own the house (i.e., possess a title). Generally, those who live closest to the waterfront and along the eleven main drainage systems and *cañadas* (gullies) are among the poorest. Those who live above these areas, along the roads and internal pathways, are relatively wealthier. Rents reflect location safety and are almost twice as high in the consolidated area as they are near the river or around gullies (Table 1).

Table 1: Housing Characteristics

	House location					
	Areas prone to flooding or landslide			Areas safe from natural disasters		Whole sample
	By river	By cañada	Downhill landslide risk	Downhill safe	Consolidated	
Year of arrival in area (average)	1984	1980	1981	1978	1977	1978
Year of arrival to current house (average)	1993	1988	1990	1987	1986	1987
House ownership with or without title (%)	60	60	56	61	57	58
House ownership with title (%)	19	23	19	30	34	30
Houses in location that flood (%)	45	22	6	7	9	13
Houses by location (%)	4	21	6	16	53	100
Average monthly rent (DR\$)	525	469	609	655	907	748

Source: Social Capital Qualitative Survey in Urban Slums, World Bank 2000.

4. **Flooding and location of households.** About 12.5 percent of respondents said their houses flooded when it rained, mostly from the street or gullies rather than from the river. The risk of flooding varies tremendously however, according to household location. From a high of 45 percent for houses located near the river to a low of 6 – 7 percent for houses located on hills but not close to a gully. However, households located near the river only account for 14 percent of houses that flood when it rains. Most (75 percent) of houses that flood when it rains are the ones located near the gully or in the consolidated areas. **This implies that the higher impact intervention to help with flooding issues in**

Ozama would not be to remove individuals from the bank of the river, but rather to ensure the gullies run well and the streets are not turned into torrents in the rainy season.

5. **Health.** Health conditions are poor. About half of the households (48 percent) reported that at least one member of the household had suffered a disease or injury in the previous three months that required medical attention. In most cases (82 percent), the sick were treated at public health care institutions. Waterborne diseases are clearly an issue in the neighborhood. A quarter of households with children under 5 years of age reported cases of diarrhea in the last 30 days. The frequency of reported cases of dengue, malaria and diarrhea is much higher among households located near the river and along the cañada, than in other residential locations (Table 2).

Table 2: Incidence of Diseases across Household Locations in the Past Five Years

	House location				
	By river	By cañada	Downhill landslide risk	Downhill safe	Consolidated
Dengue	32	39	25	24	22
Malaria	42	37	20	29	17
Hepatitis	46	47	36	36	31
TB	39	48	38	38	32

Source: Social Capital Qualitative Survey in Urban Slums, World Bank 2000.

6. **Infrastructure services.** Access to infrastructure services is reasonable in terms of coverage, poor in terms of quality and generally obtained illegally. Electricity coverage is almost universal, largely through illegal connections (approximately 79 percent). For those who pay, the average monthly payment is around DR\$232 per month. Electricity safety is an issue and was blamed for fires by 20 percent of households and for fatal accidents by 28.5 percent of households.

7. **Access to indoor water varies considerably,** from a low of 38 percent for households located near the river to a high of 67 percent for households near a cañada and in consolidated areas. Overall, 98 percent have access to piped water, either through public taps or a neighbor's, but more than a third of the households rely on bottled water for drinking purposes, suggesting safety is an issue. Reliability is also an issue as only 60 percent of households report getting water everyday. Few households (39 percent) report paying for the connection. Of those who do pay, only half pay CAASD.

8. **Very few households (12 percent) are connected to the sewer system.** Most use a septic tank (39 percent) or a latrine (40 percent). Used water is, for the most part, thrown into the street, cañada or patio, and is mentioned as a source of contamination around the house by about 40 percent of households (74 percent for households located near the river or cañadas).

9. **Solid waste** is the most frequently reported source of contamination around the house, despite the fact that nearly 90 percent of homes in the area had a collection service, municipal or private. Overall, 46 percent of households mentioned solid waste as a problem, a figure that increases to more than 80 percent for houses located near the river or cañadas. Solid waste is a primary cause of blocked drainage systems and flooding.

10. **Housing.** There are an estimated 55,000 - 65,000 housing units in the neighborhood. Most are small (41 percent are single room, another 39 percent have two rooms), single-storeyed, multi-use space with concrete block walls, cement floors and corrugated zinc sheets. About one-fifth of houses have wooden walls. Size varies, but averages approximately 25-30 square meters. Few (40 percent) are along a road passable by vehicles.

11. **Home ownership is high (58 percent).** Homeowners typically bought their house 7 years after first arriving in the neighborhood. As for tenants, they have been in the area for an average of 16 years (11 prior to moving to their current house) suggesting their inability to buy may be due to poverty trap

issues rather than to recent arrival. It may also be due to a thinning market or rising prices as owners have been in the area on average since 1975 and tenants since 1985.

12. **Credit markets** are clearly not working since only 0.6 percent of households said they were in the process of paying for the house they bought. About half of homeowners claimed to have a title for their house. Of those without titles, 88 percent thought the importance of a title is due to the security it confers while only 10 percent thought it important for access to formal credit. Those without a title were on average willing to pay the equivalent of 1 to 2 months of putative rent for the title rights (which they estimated at around DR\$1,186 per month, more than the average actual rents on rental units, which was DR\$747).

13. **Contamination.** An environmental problem plagues the Ozama and Isabella waterfront. Solid waste and upstream industrial plants and agricultural activities are sources of considerable pollution. Among those who live close to the river, 96 percent say garbage accumulation is a problem, and a quarter to a third identify industrial waste and slaughterhouse overruns as problems. Overall, residents complain of odors, discolored water in the river and skin problems for those who bathe in the river. The abundance of vegetation growing in the river is also caused by industrial and agricultural activities, coupled with non-treated sewage. As a result, the water-flow is seldom efficient and contributes to the quick flooding of the area when it rains. Contamination also fosters waterborne diseases.

14. **Violence issues.** About 7 percent of households reported incidences of attacks and a similar 7 percent for burglary in the past year. Prostitution and domestic violence were reported as the more serious social issues followed by street violence, alcoholism and drugs. (See Table 3 for a ranking of top urban problems according to those interviewed).

15. **Community organization.** Only 19.5 percent of households reported belonging to a community organization, and only 14 percent reported that the head of the household contributed to some work that had benefited the neighborhood – mostly through the Church or an NGO. Less than one percent of households reported receiving any help (food, money, schooling, clothing, health, or housing) from NGOs.

Policy implications.

16. **In the short term,** the higher impact intervention to help with flooding issues in Ozama could be that of drainage. The sources of flooding most cited are the street and gullies, as opposed to the river, and drainage improvement, i.e., ensuring that the gullies flow well and the streets do not turn into torrents during the rainy season, should be given top priority. Drainage will also have a strong impact on public health as it will reduce the incidence of dengue, malaria, and other waterborne diseases. Much of the drainage problem is linked to solid waste and will require improving collection efficiency. Another urgent public health issue is to improve water and sanitation access and quality.

17. **In the long term,** an integral strategy needs to be defined in order to improve the conditions in the area including

- (i) the design of an integrated upgrading pilot project,
- (ii) a review of the national housing framework,
- (iii) cleaning of the Ozama river and rehabilitation of its banks to prevent new settlements, and
- (iv) enforcement of the environmental law to prevent further contamination of the river.

18. **An “integrated upgrading” pilot project could be implemented following similar experiences in other countries (i.e., Brazil, El Salvador, Bolivia, Ecuador, Mexico, etc.).** An “integrated upgrading” pilot project could be immediately implemented. Such a project would consist of defining

together with the communities, NGOs, etc., a list of areas of concern, prioritize these demands, price them and adjust them to the amount of resources available. After interactive discussions, similar experiences in other countries indicate that the results are generally focused on land tenure issues, schools, security, jobs, streets, transport, basic utility services, etc. The residents who live in hazardous areas, those who are in sites where new paths have to be placed, etc., are relocated according to mutually-agreed conditions. Generally, if there are available plots in the community, these are used for such relocations. In the Ozama area, there would be a need to "go upward" by building duplexes or other such solutions (not large multifamily apartments¹⁴) where each family would still have its own unit and responsibilities.

Table 3: Ranking Exercise in Urban Slums

Rank	Problem
1	Garbage collection
2	Potable water and sewerage
3	Sanitation
4	Environment pollution
5	Violence, drugs
6	Local roads
7	Housing
8	Electricity
9	Recreational space

Source: Social Capital Qualitative Survey in Urban Slums, World Bank 2000.

¹⁴ The project RESURE contemplates resettlement of families in large multi-family units. International experience shows that middle and upper-income groups tend to be comfortable with such arrangements while low-income ones generally have various problems. In Colombia and Ecuador, for example, low-income groups find such units difficult to maintain, primarily because of the level of mutual cooperation required, difficulty of enforcing obligations (financial and others) when a member refuses or is unable to pay his or her share and the tendency for the residents not to know each other or feel responsible for common areas. If there are tenants and owners, the situation becomes more complicated because tenants are generally more transient. In the US, after the public housing rental units began to have problems, HUD sold many of them to the tenants for \$1 on condition that they form a cooperative and became owners/occupiers. The administrative, maintenance, financial and other costs were too much for many of them and such housing is systematically being demolished today. On the technical side, simple 2-4 unit cluster (multi-level with shared walls, ducts, etc.) is less expensive than a large unit. Water service in a tall unit is also a problem (low pressure) and maintaining the pipes, sewerage and other facilities in large buildings is not an easy or cheap task. In Ozama, the density is already high and if the small duplexes or cluster units are properly designed and located, the existing population could be absorbed without having the very large multifamily units which could attract larger number of outsiders and increase the need for streets, services and other social infrastructure and superstructures.

Annex 2.2 Social Assessment in the Bateyes¹⁵

1. As part of the background work for this poverty report, *Centro Puente*, an NGO with a long history of working in the bateyes, conducted a Social Assessment Survey at end-2000 of about 1,000 households who live in bateyes in the DR. These communities are among the poorest in the DR. This annex presents an analysis of the living conditions in the bateyes based on the findings of this survey as well as the recently published document *Bateyes del Estado*.¹⁶

2. **Population.** A 1999 survey conducted by the *Comisión de Reforma de la Empresa Pública* (CREP) estimated that approximately 200,000 individuals lived in 220 bateyes located in 10 sugar mills formally owned by the *Consejo Estatal del Azúcar* (CEA).¹⁷ The bateyes are concentrated in the Southeast region of the country, but are also found throughout the Southwest, close to the Haitian border. Other bateyes are located on private sugar mills or areas of coffee production. In 1999-2000, mills under the CEA produced about one-third of total sugar production, while the remaining two-thirds were privately produced. Thus, assuming that labor intensity is identical in public and private mills, it can be estimated that about 600,000 individuals (about 120,000 families) lived in bateyes in 1998. It is likely that this number has diminished following the decline in production that resulted from the privatization of the CEA.

3. **Socio-economic conditions.** These communities are among the poorest in the Dominican Republic. Average per capita income was about DR\$660 per month at end-1999 compared with poverty and extreme poverty lines of DR\$990 and DR\$450, respectively, at end-1999. There was on average 5.3 individuals per household. The bateyes represent a melting pot of Dominican and Haitian cultures. About two-thirds of the population in the bateyes is Dominican, while the remainder is mostly Haitian under ill-defined legal status (see Chapter 3). Interestingly, more than a third of the Dominicans who live in bateyes speak Haitian creole. About 75 percent of the population of the bateyes were actually born in them. Almost all of the population who migrated to the bateyes (mostly from Haiti) did so after Trujillo's regime, beginning in 1962. Migration from Haiti has intensified recently (44 percent have migrated after 1986), particularly during the international embargo (1991-94).

4. **Housing.** Few homeowners (6 percent) claim to have a title for their home. Of those who do not possess a title, 42 percent declare owning a home, while 38 percent live in homes that belong to the CEA. On average, the quality of the houses are relatively better than those of the rural poor at the national level. The majority of houses are built on land that belongs to the CEA.

5. **Education.** Illiteracy rates among people aged 15 and older reach 35 percent, compared to 27 percent in rural areas at the national level for the same age group. Education is overwhelmingly public in the bateyes. As in the rest of the country, the quality of education is low: primary educational instruction, when available, takes place in overcrowded classrooms, lacks the necessary textbooks and materials, and is often conducted by untrained teachers. Late school registration, together with high repetition and drop-out rates help explain the low levels of educational attainment. Among the 6-14 age group, only 30 percent of students are at the level which corresponds to their age. This is due in part to the fact that instruction is conducted in Spanish, while some students speak only Haitian creole. In addition, birth certificates are required for school registration and not all families under ill-defined legal status are in

¹⁵ The word batey is of Taino origin (the indigenous population that once inhabited the island). The word refers to the area used for social and ceremonial activities usually located close to the indigenous Taino settlements (*Bateyes del Estado*, Argelia Tejada Yanguela, USAID, Feb. 2001, p.11). Currently, bateyes refer to the communities inside or close to the plantations of sugar and coffee and are economically dependent on these agricultural activities.

¹⁶ *Bateyes del Estado*, Argelia Tejada Yanguela, USAID (February 2001).

¹⁷ This excludes the transitory Haitians who migrate to the DR for the harvest season.

possession of such documents. In the cases where students are admitted without the proper documents, a certificate of completion at the conclusion of primary school will not be awarded. These two issues represent additional hurdles for the segment of the population under ill-defined legal status.

6. **Health.** Health conditions in the bateyes are poor, but are (surprisingly) slightly better than those in the rural areas of the Dominican Republic. For example, pre-natal care in the bateyes (44 percent) is higher than in rural areas at the national level (36 percent) and indicators of child malnutrition are also more favorable. However, mothers from the bateyes (80 percent) report that access to health care centers is a “major issue.” Information regarding HIV/AIDS is less available in the bateyes than in rural areas at the national level.

7. **Infrastructure services.** Access to infrastructure services is somewhat comparable to that which prevails in rural areas. Access is low in terms of coverage and poor in terms of quality at the national level. Service access for electricity at 68 percent is higher than for the rural poor (62 percent). Access to water varies considerably. Only 8 percent of the households (16 percent for the rural poor) have indoor running water, while 25 percent have outdoor running water and another 25 percent depend on public standpipes. Solid-waste collection is a problem in the bateyes, where less than 10 percent of households benefit from a collection service and 50 percent dispose of solid waste in the open. Gaining access to water and electricity are ranked as top priorities by the bateyes (See Table 1).

Table 1: Ranking Exercise in the Bateyes, October 2000

Rank	Problem
1	Water
2	Electricity
3	Local roads
4	Sewerage
5	Schools
6	Community centers
7	Housing
8	Child care centers
9	Recreational space

Source: Social Capital Qualitative Survey in Bateyes, World Bank 2000.

8. **Since the mid-1980s, the already marginal economic conditions of the bateyes have steadily declined.** This decline can be attributed to a few factors. First, the Dominican agricultural sector has stagnated - the outgrowth of decades of political mismanagement, corruption, failure to invest in and modernize equipment, and widely fluctuating (usually falling) international prices. Second, sugar quotas to the preferential US market have been cut substantially from 461,000 tons in 1989-90 to 191,000 tons for 1998-99. The privatization of the CEA sugar mills at the end of 1999, although necessary, has not been accompanied by social measures to facilitate coping among affected households. As a consequence, the active population from the bateyes has been left with little choice but to migrate to urban centers seeking jobs primarily in construction and services while living in urban slums or on construction sites. Most vulnerable groups like women, children and the elderly have been left behind on the bateyes, creating additional entrenched pockets of poverty.

3. POVERTY, POLICY AND INSTITUTIONAL SHORTCOMINGS

1. Chapter 2 establishes the links between disparities in the distribution of assets and poverty. These disparities in economic opportunity reflect a legacy of policy and institutional shortcomings resulting from the Trujillo era (i.e., when the regime was highly centralized and both land and “public” companies belonged to the dictator), and also reflect the impact of the Haitian migration. This chapter examines the shortcomings which prevailed until the beginning of the 1990s, their links with poverty and also reviews the economic reforms that have been implemented since that time to correct these shortcomings. Those actions which remain on the reform agenda that are key for poverty reduction are described in Chapter 5.

A. *The Legacy of Distortions in the Dominican Republic’s Economy*

A.1. *Distortions in the Labor Market*

2. **The DR has a formal labor market characterized by a rigid legal and regulatory framework.** Firms in the formal segment of the market face many constraints in their employment and wage decisions as a result of stringent labor market regulations. The DR Labor Code (1992) specifies a multiplicity of minimum wages, mandated benefits including Christmas bonuses, payroll taxes, etc. Temporary contracts are restricted, contributions to social security function essentially like a tax since they are not linked to benefits (although this may change as the result of the Social Security Law approved in May 2001), and economic difficulties do not constitute a cause for dismissal (except in the FTZs).

Table 3.1: Basic Labor Market Indicators, 1996-2000

	1996	1997	1998	1999	2000 ^{1/}
Labor force participation	52.6	54.1	52.6	53.5	56.3
Unemployment rate ^{2/}	16.7	16.0	14.4	13.8	13.9
Open unemployment rate ^{3/}	6.9	6.6	5.9	5.9	5.2
Average real wages (change in percent)	n.a.	3.8	0.1	3.7	n.a.
Minimum monthly wage (large enterprises) (US\$) ^{4/}	146.8	169.6	158.8	181.0	176.8
Minimum monthly wages (small enterprises) (US\$) ^{5/}	94.1	109.4	102.4	109.9	107.3

^{1/} Preliminary figure for April 2000.

^{2/} Unemployment is defined as the proportion of the EAP (Economically Active Population) not working who would be willing to work immediately if offered a job.

^{3/} Open unemployment is defined as the proportion of the EAP (Economically Active Population) not working and actively seeking a job, over the four-week period preceding the survey.

^{4/} Large enterprises are enterprises with a capitalization level in excess of DR\$500,000.

^{5/} Small enterprises are those with a capitalization level below DR\$200,000.

n.a.: Not available

Source: *Mercado de Trabajo* 1991-1999, DR Central Bank.

3. **Despite rigid legislation, the labor market appears to be flexible in practice.** First, despite the existence of multiple sectoral minimum wages, minimum wages are set sufficiently low so that they are not binding in practice (minimum monthly wages for small enterprises are about US\$100 compared to an extreme poverty line and poverty line of US\$150 and US\$330 for a family of five members, respectively, at the end of 2000).¹ Second, the DR is characterized by a relatively conflict-free environment between labor unions, the government, and the private sector, which may partially be explained by the strong growth in employment. Third, the Dominican labor market has a highly flexible component (where self-employment and informality are prevalent) which does not abide by the labor regulation. About 60 percent of total workers work in the informal sector or are self-employed and more than a third of them earn less than the minimum wage for small enterprises - which is the lowest minimum wage. The share of workers below the minimum wage is particularly high in agriculture (45 percent), where labor is mostly unskilled and the level of poverty is high.

¹ See Chapter 1 for more details on the definitions of the poverty and extreme poverty lines.

4. **These interventions in the labor market foster the development of the informal sector which has a direct link to poverty.** Although poverty is measured more accurately by consumption rather than income (Chapter 1), income is a key determinant of consumption levels and the poor derive most of their income from labor earnings. The rigid and highly regulated formal labor market increases the relative price of labor which encourages informality. A number of aspects support this conclusion, including: (i) a substantial number of workers receive wages that are below the minimum wage; (ii) the majority of the working poor are employed in the informal sector, where wages are lower and employment terms are less favorable (most of the poor do not benefit from the provisions mandated by labor legislation, including the fringe benefits mandated by the Labor Code, e.g., the “13th month” salary bonuses); and (iii) the working poor throughout the country appear to face underemployment and some unemployment, with the urban poor and youth, in particular, suffering from higher unemployment rates. Strong growth since 1992 has had profound impacts on the labor market:

- **It has generated employment, especially in the informal sector.** It is estimated that about 500,000 new jobs have been created over the period 1992-99, of which, approximately 60 percent have been created in the informal sector. Correspondingly, unemployment has declined over the period (Table 3.1).
- **It has been accompanied by a changing composition in output and employment.** Structural changes initiated in the late 1970s, coupled with the emergence of Free Trade Zones (FTZs) which currently employ about 200,000 workers, and the accelerated development of tourism, construction and telecommunications after the 1991 stabilization program, have led to drastic changes in the composition of output and the demand for labor. From 1996 to 1999, 38 percent of the growth in employment took place in the commerce and hotels, bars and restaurants sectors, which accounted for approximately 25 percent of economic growth.
- **It has led to important changes in relative wages.** Real wages within the service sector have increased substantially, while wages for unskilled workers in agriculture or construction have stagnated or declined. The migration of unskilled Haitian workers – who are willing to work for substantially below minimum wages – contributes to keep unskilled wages low in the DR.

5. **Surprisingly, the rapidly changing structure of the economy has not affected the return on skills acquired via education and experience.** Returns on all levels of education have broadly remained unchanged between 1992 and 1998, while the return on experience has increased (Table 3.2). This is somewhat surprising as one would expect that the emergence of new sectors would render past skills acquired through education and experience obsolete. Explanations could be that the structural changes and new technology brought about by rapid economic growth require skills that are not related as much to formal education as they are to the accumulation of experience.

Table 3.2: Per Capita Household Income and Education of the Head of Household
Dependent variable: Logarithm of Per Capita Household Income

Explanatory variable	1992	1998
Constant	6.14 (46.76)	6.72 (121.27)
Primary Education	0.38 (5.76)	0.36 (11.00)
Secondary Education ^{1/}	0.37 (4.82)	0.43 (13.76)
Tertiary Education ^{2/}	0.69 (6.62)	0.68 (16.82)
Experience	0.0026 (0.43)	0.0096 (3.91)
Experience squared	0.000035 (0.47)	-0.000054 (-1.80)
Number of observations	1,174	4,810
R-square	0.15	0.20
F statistics	40.35	235.14

^{1/} Includes vocational training.

^{2/} Includes university and post-university education.

Note: The numbers in parentheses are the t-statistics.

Source: Estimates based on ENGIH 98.

A.2. The Public Sector²

6. **Though improving, the public management of the State still exhibits significant weaknesses.** The institutional and legal framework for financial administration dates back to 1969, a period characterized by a highly centralized government, where more than 50 percent of the budget was directly managed by the Presidency, together with most civil service personnel hiring decisions. At the same time as significant powers were vested in the Presidency, the mechanisms and information systems to control expenditures, wages and personnel hiring decisions were not developed. The main elements that limit fiscal monitoring and control are the lack of consolidation for the overall public sector budget, the existence of special budget accounts that do not allow for classification and identification of expenditures, the use of the Presidential fund (Fund 1401) and poor procurement practices and unrecorded debts. The budget passed by Congress still has little relation to the budget that is actually executed (Table 3.3). In addition, fluctuating with the political cycle, the central government also finances part of its budget with largely uncontrolled internal debt accumulated through arrears in its payments to the private sector (such as private service providers) for services rendered.

Table 3.3: Ratio of Executed to Approved Budget by Institution and Programs, 1994-1999

	1994	1995	1996	1997	1998 ^{1/}	1999 ^{1/}
Presidency	4.38	5.08	5.24	5.49	2.04	2.18
All other	0.54	0.56	0.62	0.97	0.93	0.65
Defense	0.89	0.53	0.56	0.82	1.03	1.14
Justice and Order	0.74	0.56	0.55	0.95	0.99	0.89
Education	1.00	0.93	0.88	1.20	1.06	1.06
Health	0.91	1.76	0.78	0.96	0.88	1.10
Agriculture	0.93	0.71	0.74	0.92	1.05	1.25
Transport	3.48	2.67	2.34	1.52	1.02	1.12
Urban Works	8.53	4.64	69.70	54.62	15.56	76.41
Electricity	0.75	1.73	2.46	4.31	1.03	0.59

^{1/} Preliminary

Source: Social and Structural Policy Review (Table 2.4, p.17) updated with ONAPRES.

7. **The public management of the State has a direct link to poverty.** The absence of control mechanisms linked to the continued powers vested in the Presidency makes it possible for a limited number of powerful groups to influence public decisions to better serve their specific interests. The least organized and those in the weakest economic position are those most likely to suffer from such practices.

² For more details, see Social and Structural Policy Review, World Bank, 2000, p.16.

8. **Other direct public interventions also have a direct link to poverty.** Such interventions include: (i) the provision of subsidized credit to larger agricultural producers while small landowners have no access to such credit (see Chapter 2); (ii) the price support schemes implemented by INESPRES that benefit producers of basic agricultural commodities such as rice, poultry, dairy, beans, corn, onions and garlic; and (iii) the provision by the State of a number of subsidized services (tractors and other agricultural machinery for land preparation, subsidized seeds) that the private sector could more efficiently provide. The vast majority of these expenditures benefit large producers and only a very small part of them benefit poor producers and consumers. Also, the inefficiency of the state-dominated sugar sector has deterred the development of this sector with considerable impacts on poverty.

A.3. Trade Policy

9. **Until the beginning of the 1990s, the DR maintained one of the most highly protected trade and pricing regimes in Latin America.** Development strategy was based on an import substitution strategy aimed at fostering the development of both domestic industry and agriculture by shielding them from external competition through a protective trade policy based on high tariffs and quantitative restrictions. However, like in other countries, this strategy did not yield positive results. Protectionism unduly taxed areas of comparative advantage such as coffee, cocoa, and tobacco, and state interventions through INESPRES (National Institute for Price Stabilization) crowded out private sector development in these areas and promoted a rent-seeking culture.

10. **The trade policy which prevailed until the beginning of the 1990s did not help reduce poverty as protectionism more than proportionally benefited high income producers and taxed the poorest consumers to a larger extent.** First, there was no clear policy on how trade barriers were managed or on who benefits from the significant rents associated with these imports. The granting of import licenses did not follow clear procedures or criteria and government authorities had wide discretionary powers in their use. The rents associated with the quotas were distributed among the government import agency, the INESPRES and powerful interest groups within each industry (mainly producers' associations). Second, the rents associated with the existing trade policies more than proportionally benefited large producers, while the poor were adversely hurt by the higher prices that ensued.

11. **While the import-substitute sector includes a relatively high proportion of high-income farmers, it also contains a large proportion of the most vulnerable and poorest farmers, which would require special protection under a liberalization program.** While farmers producing import substitute crops tend, on average, to have higher incomes than those producing exportables or a mix of both, farmers producing import substitute crops tend also to be more vulnerable. This is due to the fact that a large proportion of them (35 percent) belong to the lowest income quintile (Table 3.4). While the poorest farmers producing import substitute products tend to be those producing maize (and exportable coffee), the most vulnerable appear to be those producing rice. This is due to the fact that rice producers do not often mix their production with other crops and tend to be less diversified.

Table 3.4: Farmer Characteristics by Type of Production and Income, 1992

Characteristics (percent unless otherwise indicated)	Import substitute	Exportable	Both	High income	Low income
Share income agriculture	35	13	41	33	27
Average size landholding (<i>tarea</i>)	74	108	143	137	74
Land access titling	25	49	47	42	32
Q1 income	35	34	16		
Q2 income	16	19	35		
Q3 income	22	21	18		
Q4 income	10	22	18		
Q5 income	18	7	13		
Grow rice	44		9	38	18
Grow red beans	32		53	31	27
Grow maize	50		78	27	46
Grow plantain		44	49	23	19
Grow coffee		46	56	15	31
Grow cocoa		33	13	8	14

Note: farmers were classified according to production of rice, maize, and red beans (import substitute) and plantain, coffee, and cocoa (exportables).

Source: Social and Structural Policy Review (2000).

B. Reforms Since the Early 1990s: Reducing Distortions in the Dominican Republic's Economy³

12. Since the restoration of macroeconomic stability in 1991 and in an attempt to stimulate growth and reduce poverty, the government has undertaken a number of fundamental reforms which have helped to reduce distortions in the economy (Box 3.1):

- **Trade reform:** Since the early 1990s, the DR has made substantial progress towards reducing trade barriers. In 1990, import tariffs were reduced from a range of 0 to 200 percent to nine rates ranging from 0 to 35 percent. Tariff exemptions, as well as non-tariff barriers, were largely eliminated with the exception of several products,⁴ which compete with local production. Although the DR may appear to have a protective trade regime, this is not necessarily the case. Tariff rates are effectively much lower (the highest rate may be as low as 10 percent) due to under-valuation of imports by customs. Also, the FTZs import and export free of taxes, which further contributes to trade openness. In December 2000 a new trade reform was implemented which, among other things, reduced average tariff and tariff dispersion by establishing a five-tier tariff system with 0-3-8-14-20 tariff rates. However, the existing non-tariff barriers were not transformed or eliminated which has a negative impact on the poor. The poor spend over a third of their total food spending on rice, sugar, and red beans, three highly protected crops whose prices range between 35 percent to 85 percent above international prices as the result of these non-tariff-barriers.⁵
- **Fostering competitiveness.** In 1997, the DR also started to privatize its state-owned companies.⁶ Privatization of the CEA was completed in 1999 while some competition was brought into the electricity sector. The government leased a controlling interest of the sugar industry to private firms, including factories and land resulting in the elimination of public subsidies (about US\$40 million per annum). Although necessary, the privatization of the sugar industry has large negative impacts on sugarcane workers and families who are overwhelmingly poor. The cost reduction measures resulting from the privatization is expected to lead to drastic cuts in production and employment by 40-60 percent within the next 2 years. Private companies have also been invited to participate in the production and distribution of electricity while transmission remained with the CDE. However, the

³ Ibid.

⁴ These products are rice, sugar, onions, garlic, milk, red beans, poultry, and tomato paste.

⁵ For more details, see World Bank, Social and Structural Policy Review, March 2000.

⁶ There were only about 20 state-owned companies in the DR, of which only the CEA and the CDE had significant impacts on the economy and public finance. Also, contrary to most countries, public companies were not born out of a socialist ideology. Rather, the companies owned by Trujillo fell into public hands after his assassination in 1961.

absence of a regulatory framework has lowered competition instead of increasing it. The DR still has the highest electricity production costs and tariffs in all of Latin America and the Caribbean.

- **Some improvement in the Budget practice.** Indeed, the ratio of executed to approved budgets for the *Presidencia de la República* decreased from 4.9 in 1994-96 to 3.2 in 1997-99 (Table 3.3). For all other public entities, the ratio increased from 0.57 to 0.85 over the same period. Thus, executed and approved budgets seem to be converging, which is a positive development. However, the ratio of executed to approved budgets is still extremely high for the *Presidencia de la República* and there is still a very long way to go until full convergence and transparency is attained. In the meantime, these discretionary practices are unlikely to benefit the least organized and economically powerful segments of the population.

Box 3.1: Key Achievements of the Economic Reform Program Since the Beginning of the 1990s

Liberalizing the Trade Regime. Reduced the average level and dispersion of tariffs, transformed specific tariffs into ad-valorem rates. Eliminated some tariff exemptions and non-tariff barriers.

Modernizing the tax system. In 1992 important changes were introduced into the tax structure: (i) simplified the income tax structure, (ii) raised value added tax (ITBIS) and excise taxes. In December 2000 the ITBIS and excise taxes were increased while the tax base was broadened. A corporate tax on gross sales was introduced as a minimum advance on end-of-year income tax payment.

Liberalizing the Financial sector and Capital Market development. Liberalized the interest rate and enhanced financial supervision, which improved the performance of financial sector. Passed the Capital Market Law which established the policy and regulatory framework for sector development.

Promoting Foreign Investment. Passed the foreign investment law that eliminated controls in the repatriation of earnings. Also, foreign exchange distortions were reduced, and the development of a foreign exchange market encouraged, which substantially improved the conditions for foreign investors.

Modernizing telecommunication sector: Established a modern regulatory framework and new regulatory body which opened the sector to competition.

Promoting property rights. Passed two of the five books that composed the competition law: Author rights and Industrial property rights.

Reforming and Privatizing Public Enterprises. (i) 20-year concession of operations of major international airports, (ii) privatized the distribution and generation of electricity through the sale of 50% of state company shares, (iii) 30-year leasing of 10 government sugar mills (CEA) and associated land.

Reforming Social Security. On May 2001, adoption of a Social Security Law which provides universal pension, health and accident coverage (see Annex 3.1).

13. **In order to alleviate rural poverty and stimulate agricultural growth, the Government has also been distributing public land and recently engaged in a land titling program.** Since the 1970s, the Government has been redistributing public land.⁷ So far, about 150,000 hectares of land have been redistributed, benefiting approximately 100,000 families. The low level of legalized titles has also prompted the government to promote a massive land titling project that is currently under preparation. However, the land-titling project by itself is not likely to help poor farmers escape poverty. Indeed, experiences in other Latin American countries indicate that land titling induces higher income levels among farmers who have a minimum farm size of about 5 hectares with good soil quality and a minimum level of education, which the poor do not have. Also, a massive titling process may become an instrument to legalize and legitimize the appropriation of large areas of public and communal land which

⁷ Large areas of land which Trujillo had personally appropriated during his dictatorship (1930-61) fell into the public domain after Trujillo's death in 1961.

were sometimes obtained through illicit means by a handful of rich agrarian families. Finally, most of the beneficiaries of the land reform so far have remained in conditions of poverty due to the absence of complementary support in terms of credit, technical assistance and basic infrastructure. Currently, the demand for land titles is not very high mainly because of the low availability of credit for the rural sector and because of the high costs and fees involved in acquiring land titles.

C. *Haitian Migration to the DR*⁸

C.1. *Factors Behind Haitian Migration to the DR*

14. **Push and pull factors help explain Haitian migration to the DR (Table 3.5). Push factors behind Haitian migration include:** (i) widespread poverty in Haiti where rural poverty reaches 81 percent; (ii) a high rate of unemployment in Haiti implying a low opportunity cost of migration; (iii) soil degradation and erosion, which is affecting agricultural output and rural livelihood; (iv) an enormous difference in incomes between Haiti and the DR, with per capita income in the DR some five times higher than that of Haiti; and (v) the existence of networks between past Haitian immigrants and prospective ones.

15. **Several pull factors make the DR an attractive destination for Haitian migrants.** Geographic proximity, i.e., an inexpensive and relatively easy destination to reach, and the continued demand for cheap and unskilled labor by the Dominican economy have provided the two main pull factors for Haitian immigration. The economic expansion experienced this last decade by the DR, particularly in the construction and tourism industries, provides an additional incentive for this trend to continue, and also contributes to an internal migration from bateyes to urban areas. It is estimated that a net annual flow of about 12,000 Haitians have migrated to the DR in the 1990s.

Table 3.5: Economic and Social Comparison Between the DR and Haiti

	DR ^{1/}	Haiti
Economic Indicators		
Population (1999) – in millions	8.4	7.8
Population growth (1990-99)	2.2	2.1
GNP per capita (1999, US\$) ^{2/}	1,910	460
GNP per capita (1999 US\$, PPP adjusted)	4,653	1,407
GDP growth (1999)	8.3	1.5
GDP growth (91-99)	5.8	-1.2
Social Indicators (1998)		
Adult Illiteracy (percent)	18.8	52
Infant mortality rate (per thousand)	49	71
Access to safe water (percent) ^{3/}	72	28
Life expectancy at birth (years)	71	54

^{1/} Economic indicators (except GDP growth rates) from World Development Report (World Bank, 2000), GDP growth rates from Central Bank, infant mortality rate and life expectancy from ENDESA 96, and adult illiteracy and access to safe water from ENGIH 98.

^{2/} Preliminary World Bank estimates calculated using the World Bank Atlas Method.

^{3/} 1990-1996.

Source: World Development Report, World Bank (2000).

16. **Other factors add complexity to the migration pattern between Haiti and the DR.** For example, *buscones* (paid recruiters) are reported to recruit Haitian labor either deceptively or forcibly. Although *buscones* have actually been prohibited from operating in 1990, the practice still remains. On the other hand, factors inhibiting the Haitian immigrant from returning home include permanent hope for a better future and pride, manifesting itself in the fear to return home empty-handed.

⁸ For an historical background of Haitian migration to the DR, see the Background Paper on Haitian migration.

C.2. Presence, Status and Socioeconomic Conditions of Haitians and Dominicans of Haitian Descent in the DR

17. **Today, Haitian immigrants in the DR - estimated at 6 percent of a total population of 8.4 million – are comprised of three main subgroups:⁹**

- **Seasonal agricultural workers** (estimated between 15,000 and 20,000), also known as *braceros*, are contracted to work in the sugar cane fields each season for the *zafra* (harvest) and return to Haiti when the harvest ends. They are issued temporary work permits for the harvest season. Their legal status is tied to a 1939 migration law which stipulates that seasonal workers and their families have the right to a temporary work permit.
- **Undocumented Haitians living permanently in the DR** (estimated at between 250,000 and 300,000) constituted the first quasi-permanent group of Haitians in the DR. This group grew out of those *braceros* who, for personal and economic reasons, opted to remain in the DR but never regularized their legal status.¹⁰
- **Children born of Haitian immigrants in the DR** (estimated at between 250,000 and 300,000) remain under ill-defined legal status. Indeed, it remains a matter of debate and controversy whether or not this group is constitutionally entitled to automatic access to Dominican nationality. As a consequence, these children face obstacles in having access to public services including education.

18. **Closely linked to their precarious legal status, the socioeconomic conditions of the Haitian immigrants in the DR - although most likely better than what they would be in Haiti - remain extremely low.** A large proportion of Haitian immigrants (300,000 out of a total population estimated at 500,000) have traditionally resided in the bateyes where poverty and extreme poverty are much higher than the national average (see Box 2.3). As a result of the recent privatization of the CEA, Haitian laborers from bateyes have been migrating to tourist areas and urban centers seeking jobs mostly in construction and services while living in urban slums and on construction sites. Women and children have remained in the bateyes which are becoming entrenched pockets of poverty.

C.3. Impact on the Dominican Economy

19. **Haitian migration to the DR is likely to have a positive impact on the Dominican economy overall. However, it directly benefits the non-poor more while it may indirectly hurt the poor by keeping their wages depressed.** Factors to take into account when evaluating the final impact are as follows:

- **Migrants from Haiti create economic value in the DR.** The increase in output made possible by Haitian immigrants exceeds wage payments to the immigrants.
- **Migration from Haiti directly benefits mostly non-poor Dominicans.** When their legal status is ill-defined, Haitian workers (who are mostly unskilled) face multiple obstacles to labor force participation and limited opportunities for employment in the formal sector (which generates higher earnings). Haitian immigrants under ill-defined legal status do not benefit from higher Dominican

⁹ The 1998 ENGIH includes only about 72,000 Haitians who self-report as such, which as argued earlier signals a significant under-representation. This can likely be attributed to the fact that Haitian migrants flee all Dominican officials (including the persons in charge of collecting information) for fear of being deported (see Box 1.2).

¹⁰ Substantial migratory trends from Haiti to the DR began in the early 1900s, pulled by a seasonal demand for cheap labor by the U.S. sugar industry which had invested in the DR.

wages, but instead receive a wage equal to their expected wage in Haiti plus a “compensating differential.” Migration rents are appropriated by recruiters, large Dominican landholders, and more recently, the Dominican construction sector. Wages of Haitian immigrants under ill-defined legal status are very low and barely sufficient to etch a living in the bateyes or urban slums.

- **Migration from Haiti most likely has a negative impact on unskilled – and mostly poor – Dominican workers by depressing unskilled wages in the DR.** Anecdotal evidence suggests that the migration of Haitian workers is not associated with higher unemployment among unskilled Dominican workers. For example, it is difficult to find Dominicans to work on the most demanding positions (e.g., cane cutting and construction) that Haitian immigrants are willing to fill. However, the presence of a relatively elastic supply of Haitian migrants keeps unskilled wages down. As a result, poor Dominicans may benefit less from the growth process. Low wages in turn reduce the incentive to modernize and invest in labor-saving technology, which keeps the productivity of unskilled labor down and sustains low levels of unskilled wages.
- **Migration from Haiti may dampen the effect of social policies in the DR.** Haitian immigrants may exert negative externalities on poor Dominicans by contributing to congestion and thereby limiting their access to public goods, e.g., health services. This may be the case at the border area where both the quality and quantity of a number of public goods are especially limited. Also, social programs targeted to the poor may become more expensive if they also benefit Haitians. As a result, more Haitians would migrate, as they know that they would benefit from these programs.
- **Migration from Haiti may also entail other negative externalities, such as the introduction of infectious disease.** For example, HIV/AIDS is a major issue in the bateyes, which could spread to the remaining part of the country if no measures are implemented to combat it.

Annex 3.1
Social Security in the Dominican Republic:
Current system, Reform Proposal and Implications

1. **In the context of serious efforts to increase the coverage of the population to pension, health care and accident insurance**, President Hipólito Mejía promulgated a new Social Security Law on May 10, 2001. The new social security system will be implemented as of August 2002. This Annex describes and analyzes the new social security system as well as its impact on poverty.

A. The New Social Security System: Description

2. **The new social security system transforms the existing pay-as-you-go system to a three-pillar system, which will include a safety net for those unable to contribute.**

- The first pillar is a contributory scheme which includes workers both in the public and formal private sector. Total contributions will represent 10 percent of gross salary in the later years with employers and employees (including the public sector) contributing 70 percent and 30 percent, respectively (Tables 1 and 2). Acquired rights of those who are affiliated with the current system will be transferred to their new personal accounts. Retirement age is 60 (or unemployed and 55) with a minimum pension of 100 percent of the lowest minimum wage at the date of retirement. In order to guarantee a minimum pension to all current affiliates, the law contemplates the creation of the "*Fondo de Solidaridad Social*" (contribution equal to 0.4 percent of gross wage) to benefit those low income earners whose personal accounts would not be sufficient to obtain the minimum pension.
- The second semi-subsidized pillar includes all independent technical and professional workers as well as those self-employed who earn more than the minimum wage. This scheme provides a minimum pension corresponding to 70 percent of the private sector minimum wage at age 65. It is expected to be financed by both workers and the government
- A third subsidized pillar includes independent workers who earn unstable wages below the minimum wage, including the poor, the unemployed and the handicapped. This pillar is expected to be financed entirely by the government. Under the subsidized pillar, at age 60, retirees are expected to receive 60 percent of the public minimum wage.

Table 1: Contribution to the Pension System, Percent of Gross Salary^{1/}

Components	Year 1	Year 2	Year 3	Year 4	Year 5
Personal Account	5.0	5.5	6.0	7.0	8.0
Accident Insurance	1.0	1.0	1.0	1.0	1.0
<i>Fondo de Solidaridad Social</i>	0.4	0.4	0.4	0.4	0.4
AFP Commission	0.5	0.5	0.5	0.5	0.5
Operations of <i>Superintendencia</i>	0.1	0.1	0.1	0.1	0.1
Total	7.0	7.5	8.0	9.0	10.0
Contribution					
Worker	1.98	2.13	2.28	2.58	2.88
Employer	5.02	5.37	5.72	6.42	7.12

^{1/} The reference salary for formal workers will be their gross salary. For independent workers, it will be a multiple of the average private sector minimum wage.

3. **The Law establishes the *Consejo Nacional de Seguridad Social* (CNSS) as the public entity responsible for the regulation and supervision of the social security system and the identification of beneficiaries under the subsidized and semi-subsidized schemes.** The regulatory and supervisory functions of the *Instituto Dominicano de Seguros Sociales* (IDSS) will be transferred to the CNSS. The law considers the creation of two regulatory bodies (*Superintendencia de Pensiones* and *Superintendencia*

de Salud y Riesgos de Trabajo) to which the CNSS will delegate its regulatory functions. These *Superintendencias* will be financed by workers' contributions – 0.7 percent in the case of health and 1 percent in the case of pension. In collaboration with other entities like ONAPLAN (*Oficina Nacional de Planificación*), the CNSS will also establish criteria to identify the beneficiaries of the subsidized and semi-subsidized schemes.¹¹ The law also looks at the creation of the *Tesorería de la Seguridad Social*, which is expected to serve as a financial intermediary between contributors and pension and health funds. The IDSS will manage the new working accident insurance.

Table 2: Contribution to Health Insurance System, Percent of Gross Salary^{1/}

Components	Year 1	Year 2	Year 3	Year 4	Year 5
Health care	8.53	9.03	9.43	9.43	9.43
<i>Estancias Infantiles</i>	0.10	0.10	0.10	0.10	0.10
Subsidies ^{2/}	0.30	0.30	0.40	0.40	0.40
Operations of <i>Superintendencia</i>	0.07	0.07	0.07	0.07	0.07
Total	9.0	9.5	10.0	10.0	10.0
Contribution					
Worker	2.7	2.85	3.0	3.0	3.0
Employer	6.3	6.65	7.0	7.0	7.0

^{1/} The reference salary for formal workers will be their gross salary. For independent workers, it will be the average private sector minimum wage.

^{2/} Subsidies for maternity and temporary illness. Affiliates would receive income support equivalent to 70 percent of gross salary when ambulatory and 30 percent when hospitalized. Females would receive three months gross salary as maternity benefits.

4. **The health sector reform component creates a universal health insurance system, which functions in concert with public and private resources and providers.** The system is based on payroll contributions to finance health insurance costs and public funding of a non-contributory safety net. This will enable the public and private sectors to marshal all health care funds to finance a comprehensive health care package. The intention is to eliminate the duplication of expenditures and other inefficiencies. Public and private health providers are expected to compete for services provided and receive funds from the health insurance companies. The reform also contemplates the creation of *Estancias Infantiles* which will provide physical, educational, and psychological care to children under five years of age.

B. The New Social Security System: Analysis

5. **The new social security reform presents major flaws and is fiscally unaffordable.**

- Regarding pension, benefits under the subsidized pillar are higher than under the contributory and semi-subsidized schemes (through earlier retirement, the lower pension is still not actuarially fair for the 5 year difference) - the opposite should apply.
- Problems with the contributory pension pillar are very serious. With contribution rates of 5 to 8 percent of gross salary and assuming market returns on investment, no worker earning less than three times the minimum wage will have saved enough for a pension equal to the stipulated minimum wage at retirement age. Returns will be low because they are guided to "socially desirable" investments that are not the most profitable (i.e., housing, farming, etc.) In addition, most workers will choose unemployment at age 55 to collect the early pension, particularly if they know that they will qualify only for the minimum pension anyway at age 60. Moreover, it is likely that 90 percent of contributors will qualify for the minimum pension guarantee, which the *Fondo de Solidaridad* will not be able to afford.

¹¹ Other entities responsible for the identification process include: IDSS (*Instituto Dominicano de Seguros Sociales*), SESPAS (*Secretaría de Estado de Salud Pública y Asistencia Social*), and CERSS (*Comisión Ejecutiva para la Reforma del Sector Salud*).

- The pension system is highly generous. Under the subsidized pillar, at age 60, retirees will receive 60 percent of the public minimum wage. Costa Rica, for example, which also has social pensions, does not pay retirees until age 70.
- The new pension system is likely to have a large fiscal impact. Estimates of annual fiscal costs to cover the subsidized and semi-subsidized pillars, as well as the public sector employees, could be around US\$500 million (2.6 percent of GDP) in the initial years.¹² In addition, if the Government pays the contribution of independent workers, it will lead to an increase in the number of independent workers.
- The health care reform contemplates the provision of a generous universal health care package. Although little information about costs is currently available, the health reform is likely to have large fiscal implications.
- Although many of the new benefits will be subject to the availability of funds, experience shows that eventually, the government pays for entitlements that have been stipulated by law. Governments will not only cover existing and historic contributions and pensions for the public system, but will also cover existing private plans that fail. The law establishes the Government as the final guarantor for all losses that the worker might incur either during the accumulation or the pension payment phase. This creates risk-taking incentives which may have terrible consequences.

6. The proposed pension system could introduce distortions into the labor market that would increase formal unemployment.

- the law creates unemployment insurance *de facto* because unemployment is a reason to qualify for a pension in all 3 schemes.
- the reform with its generous provision of subsidized benefits will encourage evasion from the regular system by a substantial number of workers (especially those earning less than twice the minimum wage). This will result in incremental subsidized costs to the subsidized schemes.

7. The institutional structure could be improved while the investment regulation is too restrictive.

- The supervision of pensions should be merged with securities and insurance supervision to achieve economies of scale and make best use of the available skills.
- The CNSS's multiple functions (regulation, nomination of superintendent candidates, identification of beneficiaries, etc.) will overlap with those of other entities and weaken the authority of superintendents. The composition and rules of the CNSS is not likely to make it a capable, competent and effective decision-making body. While its 12 members (3 from government, 3 from employers, and 6 from workers or members) are to be jointly responsible for their actions, conflicts of interest may arise because some members could be drawn from the AFPs (*Administradoras de Fondos de*

¹² The government would have to make pension payments to 135,000 elderly poor people, equivalent to about US\$75 million annually, assuming the public sector monthly minimum wage remains US\$93. Additionally, the government will pay 70 percent of the total contribution of every independent worker. There are about 1.3 million such workers, thus the costs will be about US\$290 million annually, assuming a taxable wage of US\$125, which currently corresponds to the average minimum wage. However, this is a crude estimate since the law stipulates that the contributory base for this group will be a multiple of average private minimum wages. Similarly, the government would have to contribute partially for all 260,000 public workers. In 1999, estimated spending on public sector personnel services was US\$630 million. Thus, the government's contribution would have to be about US\$100 million, assuming a monthly average wage of US\$150 per public employee.

Pensiones)¹³ and the CNSS has the power to close down AFPs or ARSs (*Administradoras de Riesgos de Salud*). It is unlikely that good decision-making will emerge.

- The creation of the *Tesorería de la Seguridad Social* as an intermediary is not the most efficient mechanism to transfer funds between affiliates, health providers and pension funds. In fact, all countries that have placed a public institution in charge of collecting and distributing contributions have had serious problems (see the cases of Argentina and Poland). The case of Mexico is a better experience where the AFPs are the owners of the collector.
- The law states that in addition to requirements of profitability and safety, investments should promote employment, housing, industrial activities and farming. In fact, 4 of 8 investment options are in housing. Returns on these investments are likely to be low. The obligation to promote these areas will make it difficult to use the opportunity to invest in foreign assets.

C. *Implications for the Poor*

8. **The implications of the social security system for the poor are double-edged:**

- The social security reform could benefit the poor, particularly the elderly poor. Currently on the pension side, only 9,000 of approximately 144,000 of the elderly poor over 60 years of age receive cash transfers from the government. The social security system is supposed to provide pension and health insurance to the poor under the subsidized and semi-subsidized schemes. On the health side, the poor could benefit from better, more efficient and effective services, as they would have access to both public and private health institutions.
- A side benefit of the law will be the introduction of an information system to identify the poor. Every poor person will receive an identification card, guaranteeing their access to health and pension benefits. It will be possible to use this identification system to target other social programs
- However, the fiscal costs of the reform are too high, which will affect the poor in the long run. To pay for the liabilities, the Government will most likely have to reduce the provision of other social services to the poor that are funded by the budget.

¹³ 0.5 percent of contributors' gross salary and 1 percent of total investments are paid as commission fees to the AFPs. In Bolivia, contributions are also 0.5 percent of contributors' gross salary, but only 0.14 percent of total investments and 0.05 percent for the custodian of the assets.

4. POVERTY AND SOCIAL SPENDING

1. **Low levels of public spending on the social sectors, together with inefficiencies and inequities in public social spending have prevented improved outcomes for the poor.** Chapter 2 establishes clear links between disparities in assets and poverty, while Chapter 3 establishes links between disparities in the distribution of assets and policy and institutional shortcomings, as well as the impact of the Haitian migration. Although the Government has developed a number of social assistance programs to reduce poverty, the impact of public spending on the social sectors could be substantially improved through a thorough review and rationalization of the existing programs.¹ Based on these conclusions, Chapter 5 outlines the main principles of a Poverty Reduction Strategy, and recommends priority actions for its implementation.

A. *Low Levels of Public Spending on the Social Sectors*

2. **While the amount of public social spending in the DR has remained approximately stable at 6 percent of GDP over the period 1986-98, the composition of it has changed** (Table 4.1). Public spending as a percentage of GDP has slightly increased since the end of the second Balaguer period (1986-96) to reach 6.3 percent in 1998. However, an increasing share of public spending has been allocated to education, while public spending on housing has dramatically declined. During the Balaguer era, lower priority was given to education while large public investments were taking place in housing and in productive activities within the industrial and agricultural sectors.

Table 4.1: Public Spending on Social Sectors in the DR

	1986-1990	1991-1995	1996	1997	1998
Public spending on social sectors					
% of GDP	5.7	5.6	5.8	6.2	6.3
% of total spending	38.0	38.5	39.5	38.4	38.9
Public spending on social sectors (% of public social spending)					
Education ^{1/}	27.5	27.4	33.9	36.0	39.9
Health	20.2	21.2	23.1	22.5	23.1
Social security and welfare	11.2	7.3	9.6	12.4	10.1
Housing	19.1	12.6	9.1	5.1	5.2
Basic infrastructure ^{2/}	22.0	31.6	24.4	24.0	21.7

^{1/} Includes school feeding program (*Desayuno Escolar*).

^{2/} Basic infrastructure includes water and sanitation as well as other municipal and community amenities.

Source: ONAPRES

3. **However, the amount of public social spending in the DR is still lower than in most other comparable countries** (Table 4.2). The amount of social spending per capita in the DR is approximately one-third of the average for LAC countries. Also, public social spending as a percentage of total government spending is among the lowest in the LAC region.

¹ See Annex 4.1 for an analysis of the social measures ("*Paquetazo Social*") announced by President Mejia on February 5, 2001.

Table 4.2: Level of Public Social Spending (PSS) in Selected Countries, 1998

	GNP per capita (US\$, PPP adjusted)	PSS per capita (US\$, PPP adjusted)	PSS (percent of GDP)	PSS (percent of public expenditure)
Korea ^{1/}	13,322	799	6.0	34.3
Argentina	11,934	1,826	15.3	57.1
Chile	8,765	1,376	15.7	72.2
Uruguay	8,602	1,987	23.1	77.2
Malaysia ^{1/}	8,156	693	8.5	35.2
Mexico ^{2/}	7,575	591	7.8	50.5
Brazil ^{2/}	6,608	1,097	16.6	32.9
Turkey	6,325	481	7.6	45.0
Colombia	5,991	455	7.6	55.4
Costa Rica	5,889	848	14.4	74.2
Panama	5,246	871	16.6	66.0
Dominican Republic	4,586	289	6.3	38.9
El Salvador	4,026	345	8.6	56.9
Philippines ^{2/}	3,538	166	4.7	25.2
Jamaica ^{1/3/}	3,340	291	8.7	19.2
Indonesia	2,645	122	4.6	33.1
Bolivia	2,226	349	15.7	54.6
Haiti ^{4/}	1,380	n.a.	3.3	17.6
LAC average ^{5/}	5,859	860	12.3	51.7
Overall average ^{6/}	6,120	740	10.6	47.0

^{1/} PSS as percentages of GDP and public expenditures refer to 1997.

^{2/} PSS as percentages of GDP and public expenditures refer to 1996.

^{3/} Data Source: Jamaica Ministry of Finance and Planning.

^{4/} PSS as percentages of GDP and public expenditures refer to 1987.

^{5/} Average for the LAC countries included in the table.

^{6/} Average for all countries included in the table.

n.a.: Not available.

Source: World Bank estimates based on Government Finance Statistics Yearbook, 1998, IMF, except for the Dominican Republic: ONAPRES.

Table 4.3: Public Social Spending by Sector in Selected Countries as a Percentage of GDP, 1998

	GNP per capita (US\$, PPP adjusted)	Education	Health	Social Security and Welfare	Housing and Basic Infrastructure	Total
Korea ^{1/}	13,322	3.6	0.1	1.9	0.4	6.0
Argentina	11,934	4.1	1.9	8.4	0.9	15.3
Chile	8,765	4.6	2.4	7.7	1.0	15.7
Uruguay	8,602	2.2	1.5	19.0	0.4	23.1
Malaysia ^{1/}	8,156	4.5	1.2	1.4	1.4	8.5
Mexico ^{2/}	7,575	3.8	0.5	3.0	0.5	7.8
Brazil ^{2/}	6,608	3.0	2.0	11.0	0.6	16.6
Turkey	6,325	3.8	0.7	2.8	0.3	7.6
Colombia	5,991	3.5	1.4	1.8	0.9	7.6
Costa Rica	5,889	4.5	3.9	5.3	0.7	14.4
Panama	5,246	4.9	4.7	5.7	1.3	16.6
Dominican Republic	4,586	2.5	1.5	0.6	1.7	6.3
El Salvador	4,026	2.3	1.3	3.8	1.1	8.6
Philippines ^{2/}	3,538	3.4	0.5	0.5	0.3	4.7
Jamaica ^{1/3/}	3,340	4.7	2.3	0.3	1.4	8.7
Indonesia	2,645	1.4	0.3	1.0	1.9	4.6
Bolivia	2,226	7.6	1.3	6.2	0.6	15.7
Haiti ^{4/}	1,380	1.6	1.3	0.3	0.1	3.3
LAC average ^{5/}	5,859	3.8	2.0	5.6	0.9	12.3
Overall average ^{6/}	6,120	3.7	1.6	4.5	0.9	10.6

^{1/} Percentages of GDP refers to 1997.

^{2/} Percentages of GDP refers to 1996.

^{3/} Data Source: Jamaica Ministry of Finance and Planning.

^{4/} Percentages of GDP refers to 1987.

^{5/} Average for the LAC countries included in the table.

^{6/} Average for all countries included in the table.

Source: World Bank estimates based on Government Finance Statistics Yearbook, 1998, IMF, except for the Dominican Republic: ONAPRES.

4. **The low level of social spending is compounded by the highly inefficient composition of such spending.** Public spending on health and education, which should benefit the poor the most, is below the LAC average. Moreover, spending on social security and welfare, which should overwhelmingly benefit the poor, is much below the LAC average. However, spending on housing (which to a large extent

benefits the middle class - see below) and on basic infrastructure is the highest in the region and represents about twice the LAC average (Table 4.3).

B. *Inequities and Inefficiencies in the Provision of Public Education*

5. **With less than 3 percent of GDP allocated for public spending on education in 1998, the DR ranks among the lowest in Latin America.** However, an increasing share of public resources has been allocated to education, rising from 1.5 percent of GDP for the period 1991-95 to about 2.5 percent in 1998 and from 27 percent of total social public spending during the period 1991-95 to 40 percent in 1998 (Table 4.4). The 1998 ENGIH reveals that household spending on education accounts for an additional 3 percent of GDP, yielding a total of 5.5 percent of GDP (public and private spending) allocated to education in 1998.

Table 4.4: Public Spending on Education in the DR

	1991-1995	1996	1997	1998
Total spending on education (DR\$ 1998, million)	2,835	4,144	5,169	6,136
% Recurrent	79.6	87.9	84.8	93.0
% Investment	20.4	12.1	15.2	7.0
Total spending on education as share of:				
GDP	1.5	1.9	2.2	2.5
Total government spending	10.6	13.4	13.8	15.5
Total government spending on social sectors	27.4	33.9	36.0	39.9
Education spending by level (% of total)^{1/}				
Pre-primary	0.55	0.017	0.035	n.a.
Primary ^{2/}	49.2	50.3	46.7	49.2
Secondary	10.5	9.4	10.2	8.7
Higher	10.1	11.6	10.1	12.8
Central Administration	11.2	12.2	18.1	13.6
Other ^{3/}	17.9	16.2	14.4	15.7
Total subsidies per student (DR\$)				
Primary				2,551
Secondary				1,732
Higher				6,897

^{1/} Based on education spending by SEEC.

^{2/} In 1998 primary includes pre-primary and special basic education programs.

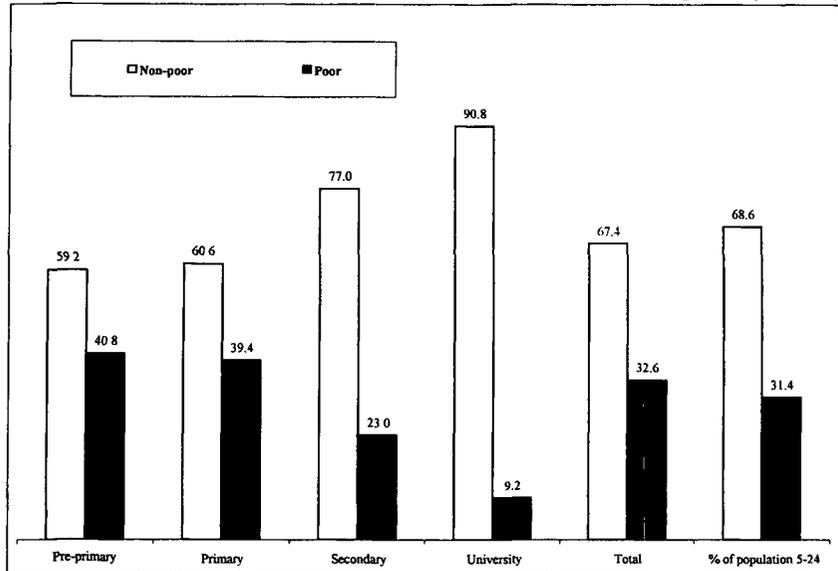
^{3/} Includes other programs such as adult education and technical training.

n.a.: Not available

Source: ONAPRES. Subsidies per student were calculated using ENGIH 98.

6. **In addition to the low level of public spending on education, its distribution is inequitable.** Indeed, disparities in educational outcomes largely reflect biases in public spending:

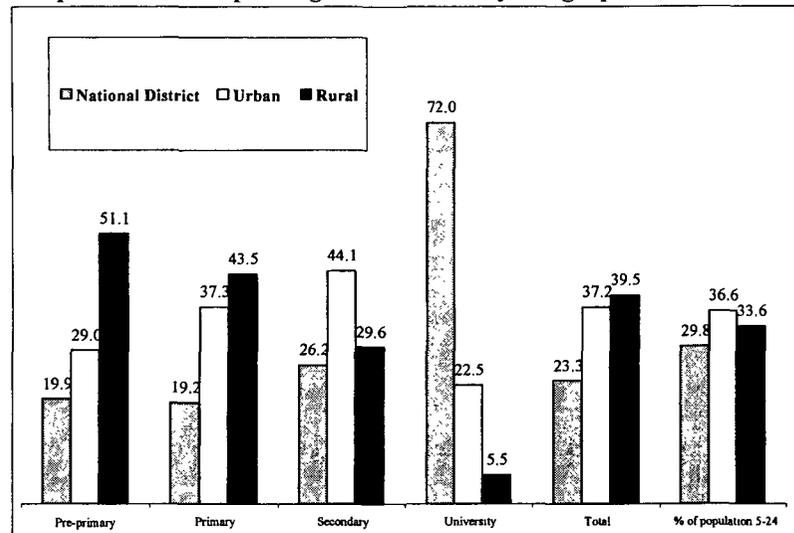
- **Overall, public spending on education is progressive, with the poor benefiting more in absolute terms.** Whereas the poor represent 31 percent of the school-aged population ages 5-24, they receive 33 percent of total public spending on education (Graph 4.1). In relative terms, subsidies are even more important to the poor, representing 10.1 percent of the poor's average per capita income, compared with 2.2 percent for the non-poor.
- **Public spending on secondary education is regressive in absolute terms.** A large 77 percent of public spending benefits the non-poor. Only the remaining 23 percent goes to the poor, while this group represents 31 percent of the school-aged population. In relative terms, however, subsidies for secondary education are more important to the poor than to the non-poor, representing about 0.3 percent of the average per-capita income of the non-poor compared with 0.7 percent of the poor (partially explained by the fact that the poor have lower levels of per-capita income).

Graph 4.1: Public Spending on Education (Poor versus Non-poor by Level)

Source: ENGIH 1998

- Public subsidies for university education are extremely regressive, in both absolute and relative terms.** Virtually all public spending (91 percent) on higher education benefits the non-poor. About 40 percent of subsidies on higher public education accrue to the top quintile of the population. Moreover, public spending on higher education is regressive in relative terms, representing more than 0.4 percent of the average per capita income of the non-poor compared with 0.35 percent for the poor (despite the poor having relatively lower levels of income). Hence, given the extremely low rate of cost recovery in public universities, the large government subsidies to higher education truly benefit the upper echelons of Dominican society.
- Only at the pre-school (*educación inicial*) and primary levels are subsidies progressive in absolute terms.** While the poor represent 39 percent of the children aged 3-5, they receive 41 percent of total government spending on pre-school education. Respective percentages are 37 percent and 39 percent for primary education. In relative terms, primary school subsidies are more than 5 times more important for the poor, representing 8.7 percent of the poor's per capita income, compared with 1.6 percent for the non-poor.
- The Haitian-Dominicans (6 percent of total population) do not have access to public education** (see Chapter 3).
- Overall, public spending on education favors rural areas to the detriment of the National District** (Graph 4.2). While rural residents (National District excluded) represent 34 percent of the school-aged population, they receive 40 percent of total government spending on education. Urban residents (National District excluded) receive a share of public spending on education approximately equal to their share of the population. However, whereas about 30 percent of the population ages 5-24 lives in the National District, residents of the National District receive only 23 percent of public spending on education (despite the National District receiving about three-quarters of public spending on higher education).

Graph 4.2: Public Spending on Education by Geographic Area and Level



Source: ENGIH 1998

7. **The composition of public spending on education is also inadequate for poverty alleviation.** A large share of public spending on education does not benefit the poor while public programs which could have large impacts on poverty are largely absent.

- **Public spending on higher education benefits the poor very little.** About 13 percent of public spending on education goes toward post-secondary education, which overwhelmingly benefit the non-poor.
- **Extremely limited public resources are allocated to Early-Childhood Development (ECD) programs and pre-school education, while private programs are mostly unaffordable for the poor** (Table 4.5). Public daycare center (*Guarderías Infantiles*) programs operated by SESPAS, which provide free day-care services to children under 5 years of age whose mothers work, does not explicitly target the poor and has very low coverage. There are two public pre-school education programs. The Integral Childcare Centers (*Centros Infantiles de Atención Integral - CIANI*) operated by the CONANI, under the *Presidencia de la República*, provide pre-school education and primary health care services and food supplements to 2-6 year-old children from poor areas (children mainly from three provinces - *Santo Domingo, Santiago and El Seybo*). Coverage under this program is also very limited. The pre-school public education program (*Educación Inicial*) is an untargeted program operated by the SEEC which provides pre-school education to 5-year old children in public schools (although those below 5 years of age are also accepted depending on space availability). About 40 percent of the children who attend are poor. However, no information is available about the impact of this program on children's development and school attendance at the primary level. In addition, private nursery schools or childcare centers are largely unaffordable for the poor. While another 160,000 children attend private pre-schools, only about 10 percent of them are poor.

Table 4.5: Existing Public Programs for 0-5 year-old Children

Program	Implementing agency	Target Population	Coverage	Total annual cost (US\$ million)
1. Day care centers <i>Guarderías infantiles</i>	SESPAS	Untargeted Below 5 years whose mother works	1,200	0.03
2. CIANI	<i>Presidencia</i>	Poor 2-6 years of age	8,000	1.2
3. <i>Educación Inicial</i> ^V	SEEC	Untargeted (41 percent poor) 5 years of age	103,900	5.5
Total			113,100	6.7

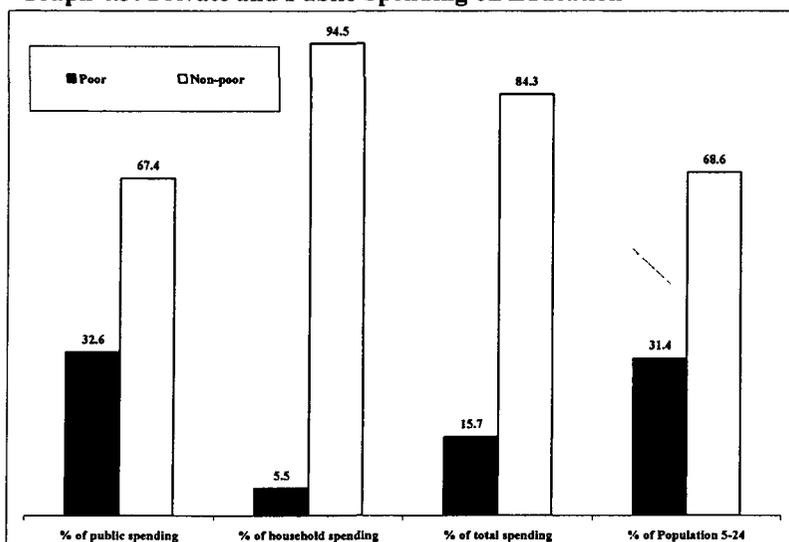
^V Cost includes *Desayuno Escolar* of US\$35 per child per annum.

Source: Based on ONAPRES.

- **The share of public resources allocated to secondary education is low.** The share allocated to secondary education is below that appropriated for higher education (which almost exclusively benefits the non-poor) or to the central administration (Table 4.2).

8. In addition, the share of total public spending allocated for secondary education has decreased in recent years, while the share allocated for higher education or the central administration has increased. The share allocated to secondary education has declined from an average of 10.5 percent for the period 1991-95 to 8.7 percent in 1998 (which had a negative impact on the poor), while the funds appropriated for higher education and central administration have increased, thereby offering very little benefits to the poor.

9. Total (public and private) spending on education is regressive due to the fact that the non-poor spend substantially more than the poor on education. The non-poor spend substantially more than the poor on education (Graph 4.3). Whereas the poor represents 31 percent of the school-aged population ages 5-24, the poor represents only 6 percent of total private spending on education. As a consequence, the poor represents only 16 percent of total (public and private) spending on education. These differences arise primarily because the poor cannot afford to send their children to private schools. Such disparities probably add to inequities in the quality of education received.

Graph 4.3: Private and Public Spending on Education

Source: ENGIH 1998

10. **Functional inefficiencies in education management have also prevented improved educational outcomes among the poor.** The poor quality of public education also stems from inefficiencies in the delivery of educational services, including: (i) highly centralized decision-making

and a lack of parent and community participation (this also applies to the SESPAS daycare program); (ii) large operational costs generated by the presence of a large number of teachers at the Ministry of Education; (iii) weak policy-making and planning capacity in the Ministry of Education; (iv) lack of a management information system and standardized evaluation system as decision-making tools; and (v) a lack of cohesion between teachers' and administrators' salaries and their performance. While such inefficiencies are not limited to the poor, the quality of education that results and is received by the poor lags behind that of the non-poor.

11. **The Government has recently started to address some of these deficiencies.** The government has made some efforts in recent years to improve the coverage and quality of education. The "*Plan Decenal de Educación*," initiated in 1990, included the introduction of a more modern and flexible curriculum at all school levels, together with further training of existing teachers, the employment of more teachers, and the improvement of school buildings and equipment. An important component of this strategy has been the distribution of more than 10 million textbooks in basic education and about 2.7 million books and teaching aids for teachers.

C. *Inequities and Inefficiencies in the Provision of Public Health Care Services*

12. **The amount of public resources allocated to health has slightly increased since the period 1991-95.** Public spending on health increased from an average of 1.2 percent of GDP (8.2 percent of government expenditures) during the period 1991-95 to 1.5 percent in 1998 (9.0 percent of government expenditures).

Table 4.6: Public Spending on Health

	1991 - 1995	1996	1997	1998
Total spending on Health (DR\$ 1998, millions)	2,168	2,822	3,224	3,526
Total spending on Health as share of:				
GDP	1.2	1.3	1.4	1.5
Total government spending	8.2	9.1	8.6	9.0
Total government spending on social sectors	21.2	23.1	22.5	23.1
Health spending by type (% total)^{1/}				
Environmental health	0.7	0.4	0.3	0.2
Primary care	3.3	3.1	2.9	2.9
Secondary care	10.1	11.7	10.4	8.5
Tertiary care	35.7	37.4	37.6	31.0
Rural clinics	14.4	17.2	13.4	19.2
Maternal- infant health	0.3	0.3	0.3	0.4
Adult health	1.7	1.9	1.6	1.6
Others ^{2/}	22.9	20.9	26.9	29.7
Central administration	11.0	7.0	6.5	6.4

^{1/} Based on health spending by SESPAS.

^{2/} Includes transfers from SESPAS to other public institutions.

Source: ONAPRES

13. **With less than 2 percent of GDP and about 9 percent of government expenditures allocated to public spending on health in 1998, public spending on health in the DR stands below the average for a number of LAC countries** (Tables 4.3 and 4.6). Health care spending by SESPAS and other ministries (including the Presidency) account for 1.2 percent and 0.3 percent of GDP, respectively, or 19.3 percent and 4.7 percent of total health care spending. Direct household expenditures amount to about 3 percent of GDP, which corresponds to half of overall health spending. Expenditures on private health care insurance account for another 16.5 percent of total spending, while private arrangements, including NGOs, account for the remaining 9.9 percent of total health spending. A low level of public expenditures on health and inefficiencies in the sector help explain low health outcomes and performance indicators, particularly among the poor.

Table 4.7: Total Health Expenditure by Origin of Resources, 1998

Sources of financing	Expenditure (% GDP)	Percent of total expenditure	Percent of population served ^{2/}
Public sector (Central Government)	1.5	24.0	49.3
SESPAS	1.2	19.3	45.2
Others ^{1/}	0.3	4.7	4.1
Private sector	4.6	76.0	50.7
Households	3.0	49.6	
Private health care insurance	1.0	16.5	
Others including NGOs	0.6	9.9	
Total	6.1	100.0	100.0

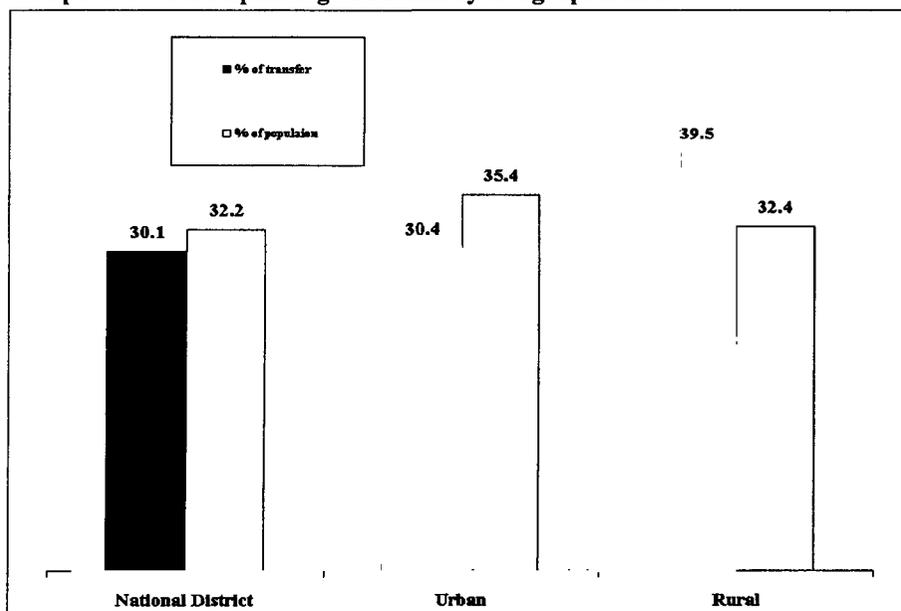
^{1/} Refers to other ministries, including the Presidency.

^{2/} Based on ENGIH 1998.

Sources: ONAPRES and ENGIH 1998.

14. **The low level of public resources allocated to health care is compounded by biases in public spending.** Analysis based on the 1998 ENGIH use patterns, poverty status and geographic location support the following conclusions:

- **The poor benefit the most from public spending on health care.** Although the poor use less health care in general, regardless of the type of care, they rely more on public services. This bias reflects the higher reliance on private health care by the non-poor.
- **A large number of the poor use private services.** Although SESPAS is the major provider of care for the poor, the poor are also major users of private outpatient and hospital facilities. About one-third of the poor prefer to pay to have access to private health services rather than use free public facilities.

Graph 4.4: Public Spending on Health by Geographic Area

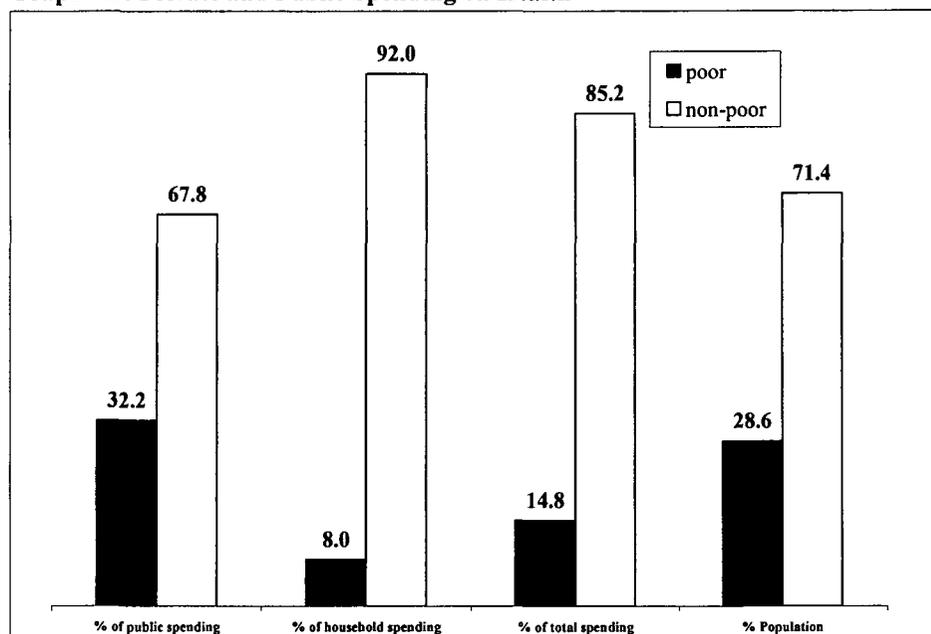
Source: ENGIH 98

- **Public expenditures are biased toward tertiary care, while little resources are devoted to preventive and primary health care.** About one-third of total public spending on health is allocated to hospitals, while little resources are devoted to maternal health, which could have a larger impact on poverty.

- **Overall public spending on health favors rural areas.** While rural areas represent 32 percent of the total population, households living in rural areas receive almost 40 percent of total government spending on health.

15. **Total (public and private) spending on health is regressive due to the fact that the non-poor spend substantially more than the poor on health.** The non-poor spend substantially more than the poor on health (Graph 4.5). Whereas the poor represent 29 percent of the school-aged population ages 5-24, the poor represent only 8 percent of total private spending on health. As a consequence, the poor represent only 15 percent of total (public and private) spending on health. Given the low quality of public health services, such disparities add to inequities in the quality of the health services received.

Graph 4.5: Private and Public Spending on Health



Source: ENGIH 1998

16. **The health sector is not geared towards improving outcomes among the poor.** While the impacts of the following issues are not limited to the poor, it is the poor that suffers from the results in terms of less access to quality services and less favorable health outcomes:

- **The current health and social security legislation is outdated.** While the Health Code (dating from the 1940s) is strongly centralized, the social security law excludes public and private workers earning more than a relatively low income level from health insurance protection.² In addition, it does not mandate coverage extension or family health coverage, and draws together the financing and administration of pension, health and worker's compensation programs into a single fund.
- **The health system is fragmented.** The health system is comprised of three major players: the Secretariat of Public Health and Social Assistance (SESPAS), the Dominican Social Security Institute³ (IDSS) and the private sector. This intrasectoral segmentation implies that different

² Workers from the formal private sector who earn less than twice the minimum wage have to be affiliated with the IDSS.

³ IDSS was created in 1947 to provide health care and elderly, disability and survivors pensions to workers in the formal private sector who earn less than twice the minimum wage. The contribution rate is 12.0 percent of the workers salary, of which the employer contributes 7.0 percent, the worker 2.5 percent and the government 2.5 percent.

institutions make policies, set plans, and implement programs more or less independently, resulting in uncoordinated investments and activities.

- **Important types of services are neglected in the public sector.** Public services are mainly curative and located in urban hospitals, depleting resources from primary and preventive services for patients in rural and peri-urban areas where most of the poor are located.
- **Public resources are allocated inefficiently.** For example, nearly two-thirds of SESPAS non-administrative spending is concentrated in two regions containing large metropolitan areas (Santo Domingo and Santiago), where about half of the population resides. There is also an excessive reliance on physicians in instances where nurses could provide services in a less expensive fashion. In addition, about 40 percent of all personnel is working on administrative matters. As a result, there is a shortage of professional and auxiliary nurses. The incentive structure is wayward, as financial resources are allocated to personnel and facilities regardless of their performance or the quality of services rendered using annual budgets determined centrally on an historical basis.
- **Public resources are spent inefficiently.** The existing public procurement of medication, storage and distribution of medication by the public sector is done via PROMESE (*Programa de Medicamentos Esenciales*) which depends on the Presidency. PROMESE provides generic medicines and medical supplies to SESPAS' public clinics, hospitals, rural clinics and public drugstores (*boticas populares*). However, PROMESE's operational costs are very high (around 30 percent), while its procurement procedures are highly inefficient. As a consequence, both the SESPAS and the IDSS have to buy directly from private drugstores at much higher prices. It is estimated that over DR\$160 million (US\$10 million) could be saved annually by increasing the efficiency of the public procurement system. In addition, the program does not possess any targeting mechanism.
- **Decision-making and management are overly-centralized,** which combined with a high level of bureaucracy, has promoted a culture of poor management, a lack of accountability for results and performance, and an inability to respond to local needs in a timely fashion. SESPAS has weak policy-making, financing, and regulatory capabilities, a deteriorated infrastructure, and weak management and information systems. As a result, a number of health centers and clinics are underused because of physical deterioration, supply shortages, staffing deficiency, and poor quality of care.
- **There are functional inefficiencies in public health care delivery.** The pyramidal referral flow between levels of care does not work efficiently. Poor coordination and complementarity between primary care facilities and hospital services are major defects of the SESPAS network. As a result, coverage of basic health services (e.g., prenatal care) is inadequate and the quality of care is poor (e.g., lack of familiarity with basic treatment protocols, erroneous diagnoses and treatment patterns).
- **Private delivery of health services is also inefficient.** Poor quality medical care is also provided in private settings due to a lack of accreditation standards and monitoring practices to ensure that minimum quality standards are met by health providers.

17. **The Government is undertaking a number of steps to improve efficiency in the health sector.** As part of the modernization of the State, the Government initiated an ambitious Health Sector Reform and Modernization Program in 1997 that sought to improve the health and nutrition status of the population, particularly the poor, by facilitating access to quality health services in an efficient and sustainable way by (i) developing and strengthening national health policies, including the redefinition of institutional roles, decentralization, inter-institutional coordination, public-private links, human resources development, financing and resource allocation, and monitoring and impact evaluation, (ii) restructuring

of the SESPAS, focusing on human resources management, development of new resource allocation mechanisms and development and implementation of management information systems, (iii) reorganizing the national medical supply system, (iv) expanding the health care coverage following new financing and service provision management, (v) reforming and modernizing hospitals, and (vi) reforming the medical program under IDSS. Two parallel projects financed by the World Bank and the IDB are helping to operationalize the Government's Health Sector Reform and Modernization Program including: (i) assisting in the expansion of health care coverage to reach the poorest segments of the population, focusing on mother and child health care by developing a new health care organization, financial, and managerial models at the provincial level (*Nuevo Modelo de Atención*) by which teams of doctors and nurses are created to provide preventive health services, (ii) strengthening primary care services by the creation of a network of public, private and NGOs service providers to be financed through public funding on a service basis, (iii) assisting in strengthening policy-making and management capacity of provincial health units under SESPAS that would work in coordination with Provincial Development Councils, as well as with participating health facilities, and (iv) facilitating the actual decentralization of decisions and management of resources by delegating to the provincial units and staff.

D. *Inequities and Inefficiencies in the Provision of Housing*

18. **With about 1.7 percent of GDP allocated to public spending on housing and basic infrastructure in 1998, the DR is the highest spender in Latin America (Table 4.3).** This is true despite the fact that a decreasing share of public resources have been allocated to housing, decreasing from 1.1 percent of GDP for the period 1986-90 (19 percent of total social public spending) to about 0.3 percent in 1998 (5 percent of total social public spending) (Table 4.1). Although municipalities (through the *ayuntamiento*) are responsible by law for the provision of water, sewage, and other municipal services including garbage collection, it is the central government that provides most public services (water, sanitation, and street paving among others) and finances housing construction and rehabilitation.

19. **The existing housing programs are extremely ineffective at reaching the poor for the following reasons:**

- **A lack of targeting.** While there is no thorough evaluation of the impact of the housing programs on the poor, these programs seem to assist blue collar workers, government workers, teachers and others within the middle income bracket and benefits the poor much less. They are also subject to political inference.
- **Inefficiencies in program delivery.** Inefficiencies in the financing arrangements between the public sector and the beneficiaries also reduce the effectiveness of the housing programs. For example, the existing programs provide subsidies to middle and upper income families.
- **Duplication of functions.** Public housing construction and rehabilitation are done through a large number of uncoordinated public institutions including the *Oficina Coordinadora y Fiscalizadora de Obras del Estado*, *Oficina Supervisora de Obras del Estado adscrita a la Presidencia de la República*, *Secretaría de Estado de Obras Públicas*, INVI, *Oficina de Pro-Comunidad*, and *Programa de Comunidad Digna*. Duplications of functions among these agencies reduce the effectiveness of the programs.

E. Protecting the Poor: Nutrition and Social Assistance Interventions

20. **To compensate for some of the biases in public spending against the poor, the Government has mobilized some resources for social assistance programs** (Table 4.8). Although the lack of information systems regarding government expenditures leaves considerable uncertainty regarding any assessment of the amount of public resources allocated to social assistance programs, we estimated that about one percent of GDP⁴ is currently allocated to social assistance programs (other than housing), most of which were initiated since the early 1990s.

21. **Some of these programs rightly address key poverty issues.** While the DR does not have a comprehensive social safety net, some of its assistance programs do seek to reduce key disparities, including:

- **Removing economic barriers to increase school enrollment by the poor.** Several compensatory education programs seek to remove economic barriers to education by providing assistance needed to generate incentives for increased enrollment, attendance, and performance. The school-lunch program (*Desayuno Escolar*) covers about 1 million children in the 3-14 year-old age group from marginal urban areas (*Programa Urbano-Marginal*). These programs seem to be quite effective at reaching the poor. However, an evaluation of the educational impact of these programs should also be undertaken.
- **Responding to community requests for basic and social infrastructure.** Disparities in access to basic services are closely linked to poverty. In mid-1998, the Government initiated the program *Comunidad Digna* whose main objective was to coordinate the social programs operated by the ministries and decentralized institutions using demand-driven identification of community needs, targeting (based on the Poverty Map developed by ONAPLAN), and co-financing of the projects with the line ministries.
- **Responding to the specific needs of vulnerable groups.** The Government provides tailored assistance to specific vulnerable groups through a number of smaller programs, including non-contributory pensions which act as a safety net for the elderly poor, an extension of the school-lunch program with fortified foods accompanied with a de-worming campaign for about 120,000 children in the border area with Haiti (*Programa Fronterizo*), a decentralized pilot cash transfer program to selected rural and remote communities for local food procurement to provide school meals in *Sábana de la Mar* and CONANI's *Ayúdame a Ser Niño* program, which targets at-risk children in the 7-15 year-old age group.

22. **However, a number of weaknesses reduce the effectiveness of these programs, including:**

- **A lack of coordination.** There is a large number of social programs scattered among ministries and other public agencies. A lack of definition of an overall poverty reduction strategy, control of funding mechanisms and coordination among entities lead to large inefficiencies in program delivery and duplication of functions. For example, many institutions provide non-contributory public pension schemes for the elderly in an uncoordinated way. Instead of focusing on intra-institutional coordination in the social sectors, the program "*Comunidad Digna*" (carried out by ONAPLAN) is planning to directly co-finance or create a large number of new programs.
- **A lack of targeting.** Some of the DR's larger assistance programs are explicitly universal while others are entirely discretionary and subject to political inference. Very little information is available

⁴ Based on Table 4.8.

to indicate who benefits from these programs. Most non-contributory pension schemes lack transparency and little information is available about the number of beneficiaries and the selection mechanisms used. Partial information obtained from eligibility requirements indicates that the largest safety net expenditures are on untargeted food assistance programs and housing programs which benefit middle and upper income groups. About one-third of spending on social assistance programs is comprised of general food subsidies, including cooked meals in public restaurants, subsidized food sales in open markets and the distribution of food baskets to the public. The program *Comedores Económicos*, which depends on the Presidency, sells cooked meals at highly subsidized prices to mostly non-poor people and increasingly goes toward feeding prisoners.⁵ The program “*Alimentos Para Todos*” implemented by INESPRES sells basic foods at subsidized prices in open markets nationwide. This program does not explicitly target the poor, either. The food distribution program of the *Plan Social de la Presidencia* provides a large number of food rations under no clearly established selection criteria, and benefits middle and low income families. The individuals who were responsible for the *Programa de Empleo Mínimo Eventual* (PEME) and the *Programa Barrial de Ayuda* are currently under investigation for alleged irregularities and abuse of public funds.

- **Inefficiencies in program delivery.** Inefficiencies in the delivery of programs also reduce the cost-effectiveness of these social programs. For example, in the CONANI program, over 80 percent is spent on salaries with little left for food and nutrition and other interventions for small children. Also, the school lunch program appears to suffer from deficiencies in the physical delivery of food to remote areas, which could be remedied through a decentralization of food procurement in these areas following the success of the cash-transfer pilot program in *Sabana de la Mar*.

⁵ Meals are sold to the public in specific places located in low-income areas at DR\$5 (approximately US\$0.30) per meal. There is no selection mechanism. The standard of food served (except for those served to ministries and public and private enterprises) is not high and thereby serves as a self-targeting mechanism for lower income workers.

Table 4.8: Inventory of Main Government Social Assistance Programs

PROGRAM	NUMBER OF BENEFICIARIES	AMOUNT (US\$)	EXPLICIT TARGETING OF POOR?	KEY ISSUES FOR IMPROVED POVERTY EFFECTIVENESS
COMPENSATORY EDUCATION PROGRAMS				
SEEC School Lunch Programs				
<ul style="list-style-type: none"> • Programa Urbano Marginal Early morning snack (milk with enriched cookies or egg bread). Average annual cost per student US\$35. • Programa Fronterizo Enriched lunch. Implementation with community participation • Cash-transfer program Pilot program in remote and rural areas (<i>Sabana de la Mar</i>). Cash transfer to communities to procure local food for school meals. Average annual cost per student US\$20. 	875,000	US\$35 million (1998)	Targeted according to nutrition and poverty map criteria (87 percent to poor)	<ul style="list-style-type: none"> • Design new criteria for targeting; expand • Evaluate impact and efficiency of implementation • Expand to rural communities
	120,000	US\$1.3 million (1998)	Targeted to border area with Haiti	
	1,700	US\$43,000 (1998)	Targeted to rural and remote areas	
OTHER NUTRITION AND FEEDING PROGRAMS				
Presidency – Program Comedores Económicos Sells subsidized food to poor	7.4 million rations	US\$5.5 million (US\$4.0 million from Budget and US\$1.5 from sales) (1999)	None In practice: <ul style="list-style-type: none"> • 75% of rations sold to prisons (to feed prisoners) 	<ul style="list-style-type: none"> • Evaluate the program for downsizing and conversion
INESPRE – Program “Alimentos para Todos” (PROALTO) Sale of basic food at subsidized prices in “ <i>mercados populares</i> ”	n.a.	US\$20 million	None	<ul style="list-style-type: none"> • Evaluate impact on the poor and efficiency of implementation
Presidency – Plan Social de la Presidencia Donate basic food baskets to poor Average cost: US\$4.25 per basket	n.a.	US\$40 million estimated (exact amount unavailable)	Targeted using ONAPLAN’s Poverty Map and other criteria from ONE In practice: <ul style="list-style-type: none"> • Reaches middle and low income families 	<ul style="list-style-type: none"> • Evaluate impact on the poor and efficiency of implementation
HEALTH				
Presidency – PROMESE Medicines and medical supplies to public clinics, hospitals and public drugstores	n.a.	US\$18 million (1999)	None	<ul style="list-style-type: none"> • Improve public procurement of medication • Improve functional efficiency • Target the poor

PROGRAM	NUMBER OF BENEFICIARIES	AMOUNT (US\$)	EXPLICIT TARGETING OF POOR?	KEY ISSUES FOR IMPROVED POVERTY EFFECTIVENESS
HOUSING ASSISTANCE PROGRAMS				
INVI – Programa de Viviendas Nuevas Housing construction	14,000 houses built or in the process of construction/ formulation (as of mid-2000)	US\$45 million (Mid-96 to mid-99)	Low and middle income families In practice: Targeting unknown	• Evaluate impact on poor and efficiency of implementation
INVI – Programa Mejoramiento Urbano Improvement of housing conditions in urban areas Implementation with NGOs and community participation	1,000 houses improved or in the process (Mid-96 to mid-99)	US\$1.5 million (Mid-96 to mid-99)	None	• Evaluate impact on poor and efficiency of implementation
INVI – Programa de Viviendas Rurales Improvement of housing conditions or house construction in rural areas Implementation with NGOs and community participation	8,300 houses rebuilt, built or in the process (as of mid-99)	US\$0.8 million (Mid-96 to mid-99)	None	• Evaluate impact on poor and efficiency of implementation
INVI – Programas Especiales (Bonos Viviendas, Soluciones Habitacionales Progresivas, Emergency Housing program, Programa Tripartito de Viviendas, Program of Legalization of Public Land	n.a.	n.a.	Mostly targeted In practice: Targeting unknown	• Evaluate impact on poor and efficiency of implementation
SPECIAL GROUP ASSISTANCE PROGRAMS				
CONANI – Programa Ayúdame a Ser Niño (PASN) Provides support to street children (7-15 years) Average annual cost per child US\$133	2,450	US\$0.32 million	Geographic targeting and self targeting	• Evaluate impact on poor and efficiency of implementation
SET – Quisqueya Joven Program Provides training	Has yet to start	Cost of the program: US\$33 million	At-risk youth (15-24) who are unemployed and outside the education system	
SESPAS – Programa Protección al Anciano Monthly cash payment of US\$12 to elderly	9,000	US\$6.9 million	Elderly poor	• Evaluate impact and efficiency of implementation

PROGRAM	NUMBER OF BENEFICIARIES	AMOUNT (US\$)	EXPLICIT TARGETING OF POOR?	KEY ISSUES FOR IMPROVED POVERTY EFFECTIVENESS
LOCAL SOCIAL INVESTMENT PROGRAMS				
Presidency – <i>Pro-Comunidad</i> Social and economic infrastructure investment projects (water, sanitation, school, rural clinics, etc.)	n.a.	n.a.	None	<ul style="list-style-type: none"> Evaluate impact and efficiency of implementation
Presidency – ONAPLAN Comunidad Digna	n.a.	US\$220 million (1999 Budget)		<ul style="list-style-type: none"> Focus on inter-agency coordination Should not directly finance projects
EMPLOYMENT PROGRAMS				
Presidency – <i>Programa de Empleo Mínimo Eventual (PEME)</i>	n.a.	US\$90 million	None	<ul style="list-style-type: none"> Evaluate impact and efficiency of implementation
Presidency – <i>Programa Barrial de Ayuda</i>	n.a.	n.a.	None	<ul style="list-style-type: none"> Evaluate impact and efficiency of implementation

n.a.: Not available

Annex 4.1
Analysis of the “Paquetazo Social”

1. In late December 2000, the Government presented the 2001 budget which included “restrictive” economic measures (known collectively as the “Paquetazo Económico”). This budget sought to reduce the fiscal deficit by increasing public resources, while keeping expenditures in check. New fiscal measures included an increase in the value-added tax (ITBIS) and excise taxes, a broadening of the tax base, a reduction of average tariff and tariff dispersion by establishing a five-tier tariff system and the introduction of a new corporate tax on gross sales as a minimum advance payment on annual income tax liability. In order to alleviate poverty and reduce the impact of the “Paquetazo Económico” on the poorest segments of the population, the President announced the “Paquetazo Social” on February 5, 2001. While some measures were already included in the 2001 budget, the “Paquetazo Social” contemplates the introduction of new programs that were not accounted for in this year’s budget.

2. The purpose of this note is to analyze the package of social measures (“Paquetazo Social”) announced by President Mejía on February 5, 2001. The note is structured as follows. First, it describes the measures included in the “Paquetazo Social.” Second, it analyzes the fiscal costs associated with the “Paquetazo Social” as well as its impact on the poor.

I. Measures included in the “Paquetazo Social”

3. The measures announced by the President can be classified in (i) measures which were already included as part of the 2001 Budget, (ii) new social measures (See List of Measures at the end of the Annex).

(i) Measures which were included as part of the 2001 budget:

- increase the coverage of the school breakfast program,
- extend the *Program of Integral Education*,
- expand the sales of basic medicines in public drugstores,
- continue with the construction and improvement of housing units, especially in poor areas,
- build 60 new urban and rural aqueducts, expand aqueducts which already exist in 98 communities and repair 40 gullies in Santo Domingo slums,
- install 700 additional producer markets (INESPRE⁶) throughout the country,
- increase the Government’s subsidy to electricity.
- provide medical assistance to 350,000 students, aged 5-10 in public schools,
- distribute 200,000 uniforms and 6.5 million school books to public school students,
- provide direct assistance to 20,000 small and medium size farmers for planting one million *tareas*, distribute planting materials, seeds, tools and equipment to 130,000 farm producers, and
- create a credit fund for farmers through the state’s agricultural bank, *Banco Agrícola*.

(ii) New Social Measures in several areas, including health, education, and basic infrastructure, as well as credit schemes and a price stabilization program.⁷

- **Education.** The Day-Care Center Program (*Programa de Estancias Infantiles Comunitarias*), will establish day-care centers in poor, industrial, touristic areas and Free Trade Zones, for children aged 3

⁶ INESPRE is the National Institute for Price Stabilization.

⁷ All costs shown below were provided by the President himself during the announcement, unless otherwise noted.

months to 3 years. These centers will provide nutrition and health services, as well as education. The program is intended to reach out to 20,000 families and would be under the supervision of the National Children's Council (*Consejo Nacional para la Niñez-CONANI*). Concomitantly, the Government will also strengthen the programs already underway as part of the Centers for Integral Attention to Children (*Centros Infantiles de Atención Integral*). Costs to implement these programs are estimated at DR\$380 million (US\$22.4 million).

- **Women and Health.** A new program to facilitate the integration of women into the work force, and to assist teenage mothers in barrios and rural areas, will be developed. It will provide support during the pregnancy and nutritional support after the birth. The program will be under the supervision of the Ministry of Women, Ministry of Public Health and CONANI. Estimated cost is around DR\$110 million (US\$6.5 billion).
- **Basic Infrastructure.** A program to improve neighborhoods (*Programa de Mejoramiento de Barrios*) will be implemented by *Procomunidad, Dirección General de Desarrollo de la Comunidad* and the *Comisión Presidencial de Apoyo al Desarrollo Barrial*, which will work with municipalities, neighborhood boards and civic society institutions. The program will help finance the reparation of dwellings, garbage collection, reconstruction of streets and gullies, potable water, sidewalks and other initiatives, which will help improve life in the barrios. Estimated cost is DR\$400 million (US\$23.5 million). Also, additional funds will be allocated to support cultural, recreational and sports activities in the barrios. Around DR\$60 million (US\$3.5 million) will be invested for these purposes.
- **Credit Programs.** As of March 2001, DR\$400 million (US\$23.5 million) will be allocated for a Family Micro-business Program (*Programa de Microempresas Familiares*). The program will focus on female heads of household, the handicapped and other vulnerable groups within the lower income brackets. The program seeks to generate 100,000 new jobs per year. The new Social Development Fund (*Fondo de Desarrollo Social - FODES*) will administer the funds that will be channeled through selected non-governmental organizations (NGOs).
- **Price stabilization program.** In his speech, the President alerted merchants that if within 10 days after the announcement prices of basic food stuffs do not come down, the state would implement a Transitory Fund for the Stabilization of Prices (*Fondo Transitorio de Estabilización de Precios*) of DR\$2,000 million (US\$117.6 million), to be administered by INESPRES. The fund would purchase or import food products whose prices have suffered excessive cost increases, if necessary. These food products will be sold at INESPRES points of sale. Approximately four months after the announcement, such a fund has not been established.⁸
- **Direct subsidies programs:**
 - ***Programa de Subsidio Familiar:*** 300,000 families from lower income brackets, whose children regularly attend public schools will be identified and given a welfare card (*Tarjeta de Ayuda Social*), beginning in May 2001, with which they will be able to withdraw DR\$300 (US\$18) a month from the *Banco de Reservas*. This amount could increase, as could the number of beneficiaries depending on tax collection levels.
 - ***Subsidio al Gas Propano:*** The President also eliminated the partial gas subsidy that had been implemented at the beginning of its administration (August 2000) and replaced it with a

⁸ After consultations with the government, it is not clear if the price stabilization fund will be established in the future.

general subsidy system.⁹ This general subsidy consists of a reduction in the price of propane gas from DR\$19 to DR\$8 per gallon for the general public. Based on estimations of the consumption of propane gas, gas subsidies will increase by DR\$1,000 million (US\$58.8 million) from DR\$800 million in the 2001 budget to DR\$1,800 million.¹⁰

- **Environment.** The Ministry of Environment will start a Program for Job Creation and Forestry Development (*Programa de Creación de Empleos y Desarrollo Forestal*). This program will employ young people living in rural areas who are currently unemployed. In its first stage, it is intended that the Program will create around 25,000 jobs. The estimated cost for the program would be around DR\$300 million a year (US\$17.6 million).
- **Bateyes.** A new program (*Programa de Saneamiento Ambiental, Salud y Alimentación*) to assist families living in the bateyes will be created. This program will seek to improve dwellings, repair and expand aqueducts, build latrines, improve health services, create new job sources, short cycle planting and breeding of domestic animals. Around DR\$200 million (US\$11.8 million) is estimated to be invested for this purpose.

II. Analysis of the “Paquetazo Social”

II.a. Fiscal Costs

4. **The incremental fiscal costs (above the 2001 Budget) of the new social measures introduced in the “Paquetazo Social” are estimated to represent US\$328 million (1.5 percent of GDP).** All measures (budgeted and non-budgeted) represent around DR\$15,800 million (US\$930 million), of which approximately DR\$10,200 million (US\$602 million) were already accounted for in the 2001 Budget. Consequently, the incremental fiscal costs of the new measures introduced in the “Paquetazo Social” represent RD\$5,570 million (US\$328 million) or 1.5 percent of GDP (8.5 percent of total budget) (Table 1). This figure includes the costs of the price stabilization program. However, the creation of this fund is contingent on the price of basic goods remaining “too high”. If this program is excluded, the fiscal cost of the new measures would be around 1.0 percent of GDP. Also, the President stated that the additional programs could be partly financed through savings on budgeted expenditures. However, in the absence of a well-defined financing plan, the government may use less-efficient mechanisms, like borrowing funds from the *Banco de Reservas*, with the usual crowding-out effect.

⁹ At the beginning of its administration (August 2000), the current authorities had increased the cost of *gas propano* (propane gas) from DR\$8 per gallon to approximately DR\$21.00. At the same time, the government introduced a coupon system which allowed one to buy the 25 pound or 50 pound tank at subsidized prices.

¹⁰ These figures were provided by government technicians.

Table 1: Fiscal Cost of New Social Programs^{1/}

Sector/ Program	Cost		Share of total cost
	US\$ million	Percent of GDP	
Education			
<i>Programa de estancias infantiles</i>	22.4	0.10	6.8
Women and Health			
<i>Programa de Atención y orientación Madres Adolescentes</i>	6.5	0.03	2.0
Basic Infrastructure			
<i>Programa de Mejoramiento de Barrios</i>	23.5	0.11	7.2
<i>Eventos Culturales recreativos y Deportivos</i>	3.5	0.02	1.1
Credit Programs			
<i>Programa de Financiamiento Microempresas</i>	23.5	0.11	7.2
Price Stabilization			
<i>Fondo Transitorio de Estabilización de Precios*</i>	117.6	0.53	35.9
Subsidies			
<i>Programa de Subsidio Familiar</i>	42.4	0.19	12.8
<i>Subsidio al Gas Propano</i>	58.8	0.27	18.0
Environment			
<i>Programa de Creación de Empleos y Desarrollo Forestal</i>	17.6	0.08	5.4
Bateyes			
<i>Programa de Saneamiento Ambiental, Salud y Alimentación</i>	11.8	0.05	3.6
Total	327.6	1.5	100.0
Total (excluding Price Stabilization Program)	210.0	1.0	100.0

^{1/} Defined as the additional funds needed to implement new programs not included in the 2001 budget.

* Introduction of the program is contingent on the price of basic food remaining "too high".

II.b. Impacts on Poverty

5. **The implementation of some measures are in line with the recommendations of this report and will clearly contribute to poverty alleviation** (see Chapter 5). These measures include: (i) the increase in the coverage of the school lunch program, (ii) the distribution of uniforms and school materials for public school children, (iii) the increase in the coverage of vaccination programs, (iv) the increase in the coverage of basic infrastructure in rural and low-income urban areas, as well as the expansion of the coverage of targeted basic infrastructure programs like *Pro-comunidad*, (v) the existence of direct income-support programs for small farmers, poor families with school-aged children, etc., (vi) the creation of day-care centers in poor areas and (vii) the investment in the bateyes to improve the quality of life and the integration of this community with the rest of the country. Such programs will contribute to the reduction of the vulnerability of special groups, like malnourished children, non-educated children and poor farmers.

6. **To efficiently implement some of these measures, it will be necessary to structure a well-defined targeting mechanism** (see Chapter 5 on targeting mechanisms). For example, families with school-aged children who will benefit from the direct income-support program will need to be identified through a fair and transparent mechanism. A list of beneficiaries could be elaborated using the existing poverty map designed by ONAPLAN. The technical secretary, together with other agencies, was responsible for the creation of this list within a two month period using the poverty map as a tool. However, empirical evidence indicates that this type of identification process takes more than a couple of months to complete. Also, the implementation, administration and evaluation of the new programs will require highly qualified personnel.

7. **Other measures either seem to be inefficient or their impact will be ambiguous and highly dependent on their implementation.**

- **Expansion of the program "Alimentos para Todos"**. This program sells basic foods at subsidized prices in open markets nationwide. However, even though these markets are situated in "strategic locations", they do not explicitly reach the poorer segments of the population (see Chapter 4).

- **Creation of a Transitory Fund for the Stabilization of Prices.** This fund will buy from local producers or import those goods that are considered to be over-priced in the market. These goods will then be sold at lower prices (as set by INESPRES) in the producer markets throughout the country. The Fund will be administered by INESPRES. The efficiency of this initiative is highly questionable: it will distort domestic prices and depress domestic production.
- **Elimination of the partial gas subsidy and the creation of a general subsidy.** These new measures will extend the gas subsidy to the entire population, with a fiscal cost of about DR\$1,000 million (around 18 percent of the total budget or 0.3 percent of GDP).
- **Creation of new credit facilities for farmers and micro-businesses.** The impact of these programs will depend on the mechanism used to assign these funds. It is not clear if these credits will be at market rates or subsidized rates. In his speech, the President stated that this credit will be under "highly favorable conditions". Also, the mechanism to target these funds to the poorer segments of these groups has not been defined. And finally, the financing of these credit facilities has not been established.

List of Social Measures included in the “*Paquetazo Social*”

I. Expansion of Existing Programs

1. Increase the daily rations of the school breakfast program by 450,000 (about 20% more than 2000).
2. Distribute 40,000 bicycles to students in lower income urban and rural areas.
3. Assign 1,250 scholarships for teachers.
4. Extend the *Program of Integral Education* to benefit 20,000 children.
5. Create a new program that will provide medical assistance to 350,000 students, ages 5-10 in public schools.
6. Distribute 200,000 uniforms to public school children.
7. Distribute 6.5 million school books to public school students (target 1.5 million students).
8. Train teachers and educational center directors (reach out to approximately 25,000 people).
9. Construct and equip 4,000 new classrooms.
10. Increase the coverage of the Ministry of Public Health budgeted programs, which will reach out to 2.9 million persons. (Vaccination programs will cover 1.2 million children. Improve services for children, elderly and handicapped programs).
11. Construct 100 clinics for basic health needs in barrios and communities.
12. Expand the sales of basic medicines through the Government’s drugstores program. Install an additional 700 drugstores by year’s end.
13. Build 60 new urban and rural aqueducts, and expand already existing aqueducts in 98 communities.
14. Repair 40 gullies in Santo Domingo.
15. Begin the construction and improvement of 50,000 housing units.
16. Sign an agreement with private contractors for the construction of low cost housing. The land will be contributed by the state.
17. Provide direct assistance to 20,000 small and medium size farmers to plant one million *tareas*.
18. Distribute planting materials, seeds, tools and equipment to 130,000 farm producers.
19. Install 700 producer markets throughout the country.
20. Improve conditions of rural roads.
21. Increase the Government’s subsidy for the cost of power.

II. Introduction of New Social Programs

1. Create a credit fund for farmers through the state bank, *Banco Agrícola*.
2. Implement a Transitory Fund for the Stabilization of Funds (*Fondo Transitorio de Estabilizacion de Precios*).
3. Create a Family Micro-business Program (*Programa de Microempresas Familiares*) to start in 2001. The program will focus on female heads of household, the handicapped and other vulnerable groups of the lower income brackets.
4. Develop a program for Job Creation and Forestry Development (*Programa de Creación de Empleos y Desarrollo Forestal*) by the Ministry of Environment. Create 25,000 jobs in rural areas.
5. Implement a Program to Improve Neighborhoods (*Programa de Mejoramiento de Barrios*) by *Procomunidad, Dirección General de Desarrollo de la Comunidad* and the *Comisión Presidencial de Apoyo al Desarrollo Barrial*.
6. Design and implement a Family Welfare Program (*Programa de Subsidio Familiar*). Identify 300,000 lower income bracket families with children of school age that regularly attend public schools. These families will receive a welfare card (*Tarjeta de Ayuda Social*) starting in May 2001, with which they will be able to withdraw DR\$300 a month from the *Banco de Reservas*.
7. Create a Day-Care Center Program (*Programa de Estancias Infantiles Comunitarias*), located in poor areas, industrial, tourism and free zones. Strengthening of programs already underway as part of the Centers for Integral Attention to Children (*Centros Infantiles de Atención Integral*).

8. Create a Program to facilitate the integration of women into the work force, and assist teenage mothers in barrios and rural areas. This program will provide support during pregnancy and nutritional support after the birth to teenage mothers.
9. Create a Program to assist families living in bateyes. Improve dwellings, repair and expand aqueducts, build latrines, improve health services, create new job sources, short cycle planting and breeding of domestic animals.
10. Implement cultural, recreational and sports programs for barrios.
11. Increase the gas subsidy through the reduction from DR\$19 to DR\$8 for the price of propane gas for the entire population.

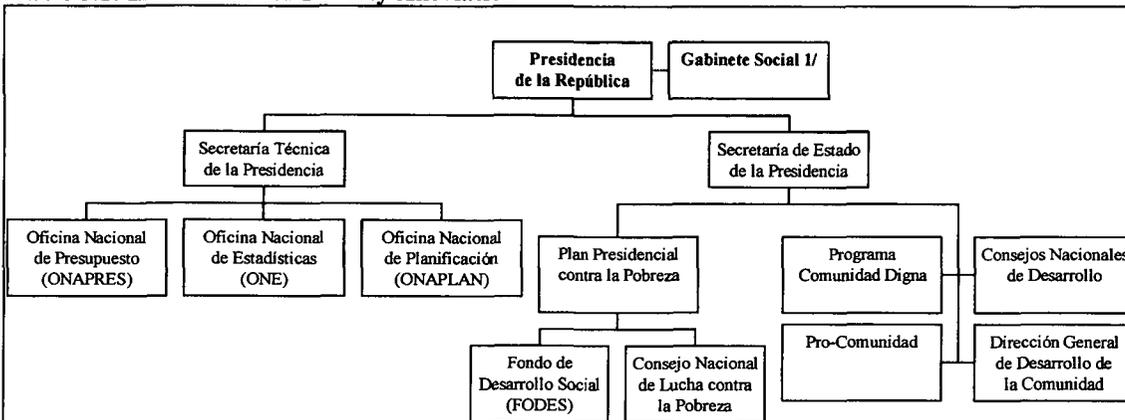
5. PRINCIPLES, PRIORITIES, AND ACTIONS TO REDUCE POVERTY

1. This chapter outlines the main principles of a Poverty Reduction Strategy and recommends priority actions for implementing such a strategy. As such, this chapter is intended as an input for the Government's own formulation and implementation of a strategy to reduce poverty.

A. *The Main Principles of an Effective Poverty Reduction Strategy*

2. **Since the mid-1990s, successive governments have taken actions aimed at fighting poverty.** In 1996, the Government defined a comprehensive poverty reduction program: a National Plan for Social Development (NPSD) was elaborated with the objectives of fighting poverty and improving the social integration of the poor through the coordination and improvement of social services including education, health, housing and other social assistance programs. In mid-1998, the Government defined a program "*Comunidad Digna*" whose main objective was to implement the recommendations of the NPSD.¹ Together with a large number of other social programs including the program *Pro-Comunidad* (which acts as a social investment fund) and the *Plan Social de la Presidencia*, the program "*Comunidad Digna*" belongs to the *Secretaría de Estado de la Presidencia* which constitutes the social arm of the government (Table 5.1). This last office finances or co-finances with the line ministries programs designed to strengthen the key assets of the poor, taking into account geographic differences in poverty based on the Poverty Map designed by ONAPLAN². It also takes into account the priorities expressed by the communities themselves through the *Consejos Nacionales de Desarrollo Provincial y Barrial*. The *Plan Presidencial contra la Pobreza* (which supplanted the *Plan de Asistencia Social de la República*) was created in October 2000 to define and execute the Government's social policy, along with coordinating and co-financing existing social programs. This office develops its activities through the *Consejo Nacional de Lucha contra la Pobreza* and the *Fondo de Desarrollo Social de la República Dominicana* (FODES). In February 2001, President Mejia announced a package of social measures collectively known as the "*Paquetazo Social*." Although these measures have yet to be evaluated, when implemented, some of these measures could have a significant poverty reduction impact (see Annex 4.1).

Table 5.1: Institutions for Poverty Alleviation



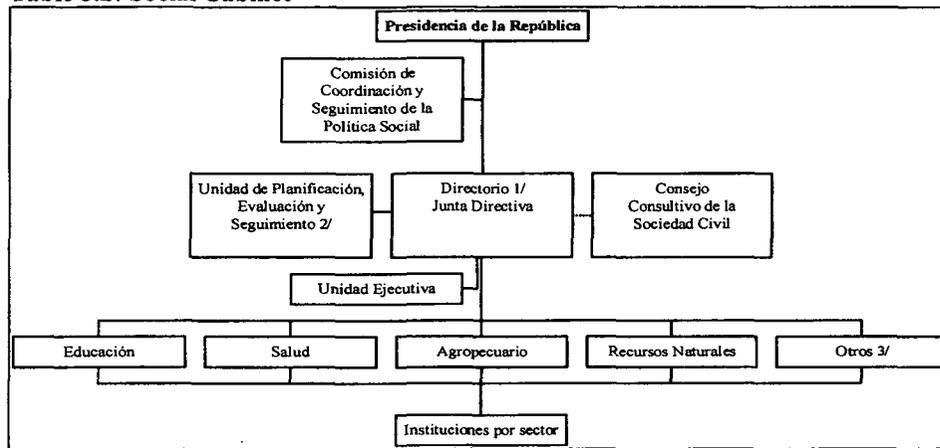
¹ Table 5.2 provides details on the organization of the Social Cabinet.

¹ "*Programa Comunidad Digna: Plan de Acción para la Reducción de la Pobreza*" Secretariado Técnico de la Presidencia, Oficina Nacional de Planificación (ONAPLAN), August 1998.

² ONAPLAN's Poverty Map is the outcome of a multivariate analysis based on the ENDESA 1996 survey (see Chapter 1).

3. However, work is still needed for the Government to develop a comprehensive Poverty Reduction Strategy founded on sound basic principles with clear objectives and priorities for translating this strategy into action. The existing uncoordinated implementation of a plethora of programs leads to inefficiencies and duplication. Expenditures under the various programs, evaluation of their impact on the poor and their efficiency are largely unknown by the implementing agencies themselves (see Chapter 4). There is also little coordination between the Central Bank, the Presidency and the line ministries in the analysis of poverty. For example, the poverty map has not been updated with the outcome of the latest ENGIH 98 survey - implemented by the Central Bank - while the ENGIH 98 has not been designed to assess the existing social programs - implemented by the Presidency and the line ministries. As a result, the technical analysis on poverty does not feed into the policy formulation process. The creation of a social cabinet in April 2001 responsible for the definition of social policies, as well as their implementation and evaluation, will help to address these gaps.

Table 5.2: Social Cabinet



^{1/} Includes: *Secretaría de Educación – Presidente, Secretaría de la Presidencia – 1^{er} Vice, Sec. de Salud – 2^{er} Vice, Secretaría de Agricultura – 3^{er} Vice, and Secretaría Técnica de la Presidencia – Secretario.* Institutional Members include *Secretaría de Educación, Secretaría de la Presidencia, Secretaría de Salud, Secretaría de Agricultura, Secretariado Técnico de la Presidencia, Secretaría de Cultura, Secretaría de Trabajo, Secretaría de la Mujer, Secretaría de la Juventud, Secretaría de Deportes, INVI, CONAU, and Centro de Información Gubernamental.*

^{2/} Includes: *Secretariado Técnico (ONAPLAN, ONAPRES, ONAP) and Consejos Regionales, Secretaría de Finanzas, Tesorería Nacional, Presidencia de la República, Contraloría General.*

^{3/} Otros includes: *Desarrollo Social, Trabajo, Vivienda, Juventud, Mujer, Deportes, Agua, and Cultura.*

4. The Poverty Reduction Strategy proposed in this report is designed to strengthen the key assets of the poor, taking into account geographic differences in poverty and priorities expressed by the communities themselves. The main underlying principles for this strategy include :

- Achieve macroeconomic stability with low internal (fiscal) and external (balance of payments) deficits and low inflation to maintain strong and sustainable economic growth,
- Deepen economic reforms for sustained broad-based economic growth, enhance economic opportunities and reduce disparities in assets (B1)³,
- Define the legal status of the Haitian-Dominicans who live in the DR as well as a migration policy (B2),

³ Refers to the corresponding section later in the chapter.

- Define a Poverty Reduction Strategy including prioritization among poverty groups, evaluation and rationalization of the existing social programs and reallocation of the corresponding savings toward the priority groups (B3),
- Decentralize decision-making authority for the delivery of social services and resource allocation (B4),
- Increase community involvement and participation to identify needs, and ensure ownership and sustainability of projects (B4),
- Establish links between the public and private sectors,
- Develop and use targeting mechanisms for priority groups (B5),
- Monitor both the poverty situation and the implementation of the strategy itself (B6).

5. **The strategy also includes a plan of action for interventions in key areas**, including: education, health, housing, nutrition and social assistance programs, basic infrastructure, land and property titling, financial and insurance services and urban and rural poverty, including the bateyes (C).

B. Priorities for Translating these Principles into Action

B.1. Deepening Economic Reforms to Enhance Economic Opportunities and Reduce Disparities in Assets

6. **Implementing structural reforms is key to promote broad-based economic growth, reduce disparities in the distribution of assets as analyzed in Chapter 2, and reduce policy and institutional shortcomings that adversely impact the poor as analyzed in Chapter 3.** The agenda of economic reforms to promote economic growth is large, encompassing reforms to modernize the State, foster competition and liberalize trade. The Government also needs to prevent backsliding against reforms which have been initiated and need to be aggressively pursued like the trade reform and fostering competitiveness in the electricity sector. With timely implementation of these reforms, growth in real GDP is expected to be sustained at 6-7 percent per annum. These expected growth rates could reduce poverty by as much as 1½ percentage points per annum from the level of 28.6 percent in 1998 (Table 1.6). Some key structural reforms are crucial for reducing poverty:

- **Enhancing flexibility in the labor market** would ensure that all labor, including the poor, would benefit from long-run economic growth. Labor market reforms could be pursued to discourage informality. This could be achieved by increasing the flexibility of the formal labor market. Potential candidates for reform could include the inclusion of clauses for contract termination due to economic hardship, and the allowance of temporary contracts. The adoption of such clauses would make opportunities in the informal sector appear less attractive.
- **Continuing with the distribution of land.** Given the extreme concentration of agricultural land in the DR, it is virtually impossible to quickly reduce rural poverty without more land redistribution. About 80,000 hectares of the estimated 200,000 hectares of public lands could be immediately incorporated into the land reform. These lands include soils of moderate to good quality located in areas with a high concentration of landless peasants. Another 60,000-80,000 hectares of arable lands appropriated by large landowners from the public sector or from poor peasant communities could also be surrendered in exchange for water rights and land titles and incorporated in the land redistribution

process. This land redistribution could benefit 80,000 peasant households (400,000 persons) equivalent to nearly half of the rural poor. However, it would need to be complemented by additional appropriate support in terms of credit and technical assistance.

- **Expanding the land tenure regime**, by modernizing land administration services and implementing a national land titling program focusing on peri-urban and rural areas. In order to benefit the poor as much as possible, this program should be synchronized with the land distribution program in rural areas. This program, which should incorporate microenterprises as well, is expected to alleviate rural poverty.
- **Modernizing the State.** The State modernization strategy defined in the 1996 National State Modernization and Reform Program (PNRME) and currently under implementation should be pursued vigorously. It seeks to transform the role of the Government and its relation with civil society - including the poor - through the redefinition and transformation of public institutions. A Commission for the Reform and Modernization of the State was created in 1996 to develop a global framework and action plan to guide, oversee and coordinate the modernization effort of public institutions. Provincial Development Councils, comprised of provincial and municipal authorities as well as community representatives, were created to promote social participation in planning, administering and implementing development programs at the provincial and municipal levels, as well as for strengthening public and private collaboration. A Presidential Commission for supporting provincial development was created in 1997. The modernization of the State also aims at bringing transparency in the budgetary process and fight corruption.
- **Furthering trade reforms.** To improve the country's competitiveness and sustain economic growth, the government should pursue trade liberalization in the context of a Free Trade Agreement signed with Central America in 1998, which is still awaiting ratification from Congress. The proposed tariff reform (to be implemented by 2005) would reduce the average tariff rate and tariff dispersion by establishing a four-tier tariff system with 0-5-10-15 percent rates. This could be done without a reduction in import tax revenues by adjusting the valuation of imports to reflect their true value. Furthering trade liberalization in the agriculture sector while protecting the poorest farmers would reduce poverty and improve governance. Trade liberalization in the agriculture sector could be gradually undertaken through a number of steps. First, the incentive for market interventions and high protection by rent-seeking government agencies and other interest groups could be eliminated by adopting a transparent mechanism to auction the existing quotas, while the corresponding revenues would be channeled through the general treasury (as is done with tariff revenues). Second, the government could undertake a gradual liberalization using the current tariff equivalent of existing quotas as a starting point for the tariff level. Third, a program of support to poor farmers affected by the liberalization could be put in place during the transition (Annex 5.1).
- **Introducing competition in the financial sector.** The approval of a monetary and financial code would create a clear and transparent policy, along with a regulatory framework. This measure is necessary to attract foreign capital to the financial sector. The entry of foreign banks would in turn increase competitiveness and decrease interest rates, which would benefit the poor.
- **Fostering competitiveness.** In the electricity sector, the adoption of an adequate regulatory framework would make the sector more competitive and bring costs down substantially, thereby improving the quality of services, as well. This would benefit all including the poor who cannot afford alternative electricity sources (e.g., generators). The adoption of competition legislation would establish modern competition and consumer rights from which the poor stand to benefit.

- **Redirecting subsidized public credit** (which reaches mostly the non-poor) to provide *unsubsidized* credit to the poor. The use of public credit as a social instrument through subsidies has been shown repeatedly to be ineffective and wasteful. In fact, subsidized credit leads to rent-seeking activities and rarely reaches the poor. Rural credit programs and programs to lend to microenterprises should rely on strengthening financial intermediaries specialized in microfinance for the poor, including some NGOs. It is estimated that a well-targeted unsubsidized public credit program could benefit up to one half of all poor farmers with average loans of the order of US\$3,000.
- **Enforcing mitigation measures** to protect against catastrophic events. The occurrence of earthquakes or hurricanes could have a major impact on the entire population including the poor. The Government should actively enforce compliance with the building codes, prevent settlements in at-risk zones including along the Ozama river, conduct awareness/information campaigns and keep ready to implement emergency operations to alleviate the most devastating immediate effects of catastrophic events.

Table 5.3: Main Pending Structural Reforms

Area	Issues	Status
Trade Reform		
Trade liberalization	Liberalize trade through free trade agreement with Central America.	Pending Congressional ratification.
Private Sector Development		
Competition legislation	Establish modern competition and consumer rights Law and new regulatory body.	Pending Congressional approval of 3 books
Electricity Law	Establish modern regulatory framework and regulatory body.	Pending congressional approval since 1993.
Financial Sector		
Monetary and Financial Code	Establish policy and regulatory framework for financial sector and Central Bank.	Approved by Congress in October 1999. Veto from Executive.
Modernization of the State		
Public Procurement Law	Establish new more competitive rules for public procurement.	Pending Congressional approval since 1998
Public Accounting Law	Modernize public accounting system.	Pending Congressional approval since 1998

B.2. Regulating the Migration Flow from Haiti

7. **The regulation of the Haitian migration through the delivery of working permits would be a key part of an overall poverty reduction effort in the DR.** It would make the contractual working arrangements transparent and would prevent unfair competition between Haitian migrants and unskilled Dominican workers.

Box 5.1: Migration Policy: Nicaragua and Costa Rica

As the DR seeks to clearly define their immigration policy with Haiti, the Government may wish to consider other international experiences, such as Nicaraguan migration to Costa Rica. Similar to the DR and Haiti, a considerable amount of economic disparity exists between the neighboring countries of Costa Rica and Nicaragua (see Table 1). Official estimates indicate that there were about 300,000 Nicaraguans (both legal and illegal) living in Costa Rica in 1999, which accounts for approximately 7.5 percent of Costa Rica's population. Successive Costa Rican governments have demonstrated a high degree of flexibility vis-à-vis this migration and have modified immigration policy accordingly. In the early 1990s, the government issued an exception rule (*régimen de excepción*) for one year to facilitate the establishment and settlement of those foreigners residing illegally in the country that had entered prior to July 1990. In 1994, the exception was modified to include those who had entered the country prior to July 1993. A seasonal working permit (*Tarjeta de Trabajo Estacional – T.T.E.*) was created in 1995 to allow illegal workers to enter the country for a period of up to 6 months. This permit could be renewed one time only for another 6 months. In the aftermath of Hurricane Mitch, Costa Rica granted a new exception allowing Nicaraguans who had entered the country prior to November 1998 to remain in Costa Rica for a period of 6 months from February until July 1999. By March 1999, 63,000 petitions had been processed as a result of this amnesty movement.

Table 1: Economic and Social Comparison Between Costa Rica and Nicaragua

	Costa Rica	Nicaragua
Economic Indicators		
Population (1999) – in millions	4.0	5.0
Population growth (1990-99)	2.0	2.8
GNP per capita (1999, US\$)	2,740	430
GNP per capita (1999 US\$, PPP adjusted)	5,770	2,154
GDP growth (1980-90)	3.0	-1.9
GDP growth (1990-99)	4.1	3.2
Social Indicators (1998)		
Adult Illiteracy (percent)	5.0	32.5
Infant mortality rate (per thousand live births)	13	36
Life expectancy at birth (years)	76.5	68.5

Source: "Estimación del volumen y características sociodemográficas de los inmigrantes nicaragüenses en Costa Rica", by Gilberth Brenes (Aug. 1999, *La Nación*)

8. In the long run, the only way to solve the immigration problem and thereby help the Dominican poor is by improving economic conditions in the island of Hispaniola as a whole. Poverty in the DR would be alleviated if economic conditions were to improve in Haiti. Since policies in one part of the island have effects on poverty in the other due to the migration link, policies should be considered that would tackle the problem of poverty in the island as a whole. Thus, measures to reduce poverty in Haiti should be thought of as part of a package of poverty-reducing measures for the DR, and vice versa. Internalizing these cross-country effects in the poverty-reducing policy package would improve its effectiveness. In this regard, the most sustainable approach to easing migration pressures in the DR must include the fostering of opportunities for long-term trade and economic development planning on the island as a whole. A shift in focus in the economic and political development efforts from the DR to the island of Hispaniola could encourage the promise of joint economic aid to develop strategies for regional economic development projects. Consideration of the creation of an Hispaniola Investment Fund to develop the border area is a long-awaited step in this direction.

B.3. Defining a Poverty Reduction Strategy

B.3.i. Prioritizing Among Key Poor and Vulnerable Groups

9. The Government should prioritize among poverty groups according to the prevalence, depth and severity of poverty (Table 5.4). First priority should be given to the rural poor with particular attention to those who live in bateyes, poor and malnourished children in all areas and poor single

mothers in urban areas. Second priority should be assigned to combating poverty among the urban poor who live in slums in flood-prone areas, the elderly poor and at-risk children who have left the formal education system. Finally, third priority should be given to programs that target the remaining poor in urban areas, poor workers who are employed in the informal sector, and the unemployed poor.

Table 5.4: Priority Poverty Groups

(*** = top priority, ** = medium priority, * = priority)

GEOGRAPHIC GROUPS	PRIORITY
<ul style="list-style-type: none"> • The poor in rural areas with special focus on the bateyes. A large share of the rural population is poor. Poverty in the bateyes is often extreme and is likely to worsen. The ONAPLAN Poverty Map would help to identify specific regions with high concentrations of rural poor. • The poor in urban slums who live in flood-risk areas. Although the DR is subject to the fury of hurricanes and floods, a large number of the urban poor live in flood-prone areas. For example, over 300,000 persons in the Santo Domingo area are located in the margins of the flood-prone (and highly polluted) Ozama River. • The remaining poor in urban areas. In terms of their absolute numbers, the urban poor constitute an important group. A significant share of city dwellers also live just above the poverty line and could be considered vulnerable due to their precarious economic situation. Overall, however, urban poverty tends to be less extreme and severe than rural poverty. 	<p style="text-align: center;">***</p> <p style="text-align: center;">**</p> <p style="text-align: center;">*</p>
DEMOGRAPHIC AND ECONOMIC GROUPS	PRIORITY
<ul style="list-style-type: none"> • Poor children. 40 percent of children under the age of five live in poverty, while 5.9 percent of children under the age of five are malnourished (3.9 in urban areas versus 8.5 in rural areas). The development status of children renders them extremely vulnerable to the risks of living in an impoverished environment that will perpetuate the poverty cycle. Childhood is the point in the life cycle when physical, cognitive and psycho-social development occurs at its most accelerated pace and is most susceptible to abnormal development from poverty conditions. Poverty is particularly costly to individuals, society, and future generations when it occurs at these stages of life. • Single, female-headed households, particularly in urban areas. The poverty strategy identifies this group as a priority for specific interventions. • Children who are not in the formal education system. The poverty strategy also identifies this group as priority for interventions. Indeed, poverty is strongly correlated to a lack of education. However, re-integrating them back into the education system after they have left is an expensive strategy. • Poor elderly. Though a smaller share of the elderly are poor, this is due mainly to the lower life expectancy of the poor. There is currently no program in place to assist poor elderly citizens who fall outside of the social assistance system and have to rely on donations from neighbors and family. • Informal sector workers and the unemployed. The poverty strategy also identifies these groups as priorities for intervention. Indeed, poverty is strongly correlated with informal work and unemployment particularly among urban women and youth. Although these groups are most likely captured by the aforementioned priority group classifications, these groups may have specific needs, as well. 	<p style="text-align: center;">***</p> <p style="text-align: center;">***</p> <p style="text-align: center;">**</p> <p style="text-align: center;">**</p> <p style="text-align: center;">*</p>

B.3.ii. Evaluating, Rationalizing and Reallocating Social Expenditures

10. **In the medium term, a strong poverty reduction strategy would eventually require an increase in overall government resources.** However, such an increase should take place only within the context of an overall modernization of the state. Indeed, a lack of information systems, inadequate mechanisms to monitor government expenditures, an excessively centralized process of resource allocation and administration, outmoded procurement practices, together with a lack of mechanisms to target the poor render it unlikely that additional funds would efficiently reach priority groups. In this context, it would only be advisable to increase the size of the state if strong efforts were simultaneously taken to improve implementation capacities.

11. **Therefore, a thorough evaluation of the existing social programs, followed by a rationalization of social expenditures and a reallocation of the corresponding savings toward the priority groups, should be top priority for effective action to reduce poverty.** Evaluating the impact on poverty and the efficiency of the existing social programs should be top priority for effective action to reduce poverty. Indeed, a thorough review of public spending on social sectors would provide guidance on the rationalization of the existing programs and could be expected to generate substantial fiscal savings. For example, the elimination of the untargeted nutrition and feeding programs would generate as much as US\$60 million in fiscal savings annually alone. The elimination of interest rate subsidies to rural credit, credit to microenterprises and of untargeted housing programs could create additional substantial savings. The Government could reallocate these savings toward areas that benefit the poor, boost cost recovery for services used by the non-poor (e.g., tertiary education), and improve efficiency in service delivery. The development of targeting mechanisms (see below) in program and service delivery plans would also help ensure that more resources are channeled to the poor. The analysis of the ENGIH 98 on which this report is partially based, already provides some insight into some of the main reallocations that are needed to reduce disparities in assets.

12. **Public spending on education must be reallocated in the short-term and then increased in the medium-term for improved effectiveness in combating poverty.** The analysis clearly shows that disparities in education are the key causes of poverty in the DR. Investing in the education of the poor is also the principal lever for helping the poor lift themselves out of poverty in the long-run. Clear candidates for the allocation of more resources and increased efficiency include:

- Higher cost recovery for higher education – which benefits the non-poor – and a reduction in spending by the Ministry itself would immediately liberate resources that could be allocated toward pre-school and secondary education with priority given to the poor;
- Early Childhood Development (ECD) programs for children between 6 months and 3 years could alleviate poverty in the DR.⁴ Such programs have shown to be very successful and have had a large impact on poverty in countries like Mexico and Colombia. They reduce short-term risks (i.e., malnutrition and low educational development) which raise the child's long-term chances of escaping poverty and permit parents (single women in particular) to work. Childcare centers could be operated by the communities themselves or NGOs. Subsidies to service providers could be allocated on a per-capita or other demand-driven basis. Such a program would include nutrition assistance and training in psychological stimulation for child development. The centers would also be visited by medical doctors and nurses. Based on international experiences, the cost of childcare centers is about US\$200 per child per year. The annual cost of complete coverage for all children between 6 months and 2 years of age from poor households (170,000 children) would be about US\$34 million (0.18 percent of

⁴ The program could incorporate the public daycare centers (*Guarderías Infantiles*) currently operated by the SESPAS after the program is decentralized and the centers are converted into more comprehensive childcare centers.

GDP). Providing such services to the whole population would cost about three times this amount, although non-poor households could contribute about 40 percent in the form of fees and materials;

- The annual cost of completing coverage of pre-primary education (*educacion inicial*) for all children ages 3-5 from poor households (250,000 children) would be about US\$50 million (0.26 percent of GDP). Providing such services to the whole population would also cost about three times this amount, although non-poor households could also contribute about 40 percent in the form of fees, uniforms, transport costs, books and materials;
- The annual cost of completing coverage of primary school for all 300,00 children ages 6-11 who are not currently enrolled is expected to be about US\$60 million (0.32 percent of GDP), including US\$36 million to the government and US\$24 million to households (assuming total cost of US\$200 per child per year);
- The annual cost of completing coverage of secondary education for all 180,000 children aged 14-17 not currently enrolled would be about US\$27 million (0.14 percent of GDP), including US\$16 million to the government and US\$11 million to households;
- Demand-side factors (economic constraints) pose obstacles to increased enrollment by the poor. As such, policies to subsidize the demand for education for the poor (e.g., targeted school feeding and/or attendance-based cash transfer programs such as Mexico (*Progresá*), Brazil (*Bolsa Escola*) or Honduras (PRAF)) could be considered. Anecdotal evidence suggests that school attendance has increased as a result of the introduction of the school-lunch program (*Desayuno Escolar*). Also, the current pilot program of transferring money to school boards for local food purchases and the production of school meals in rural and remote areas could be quickly and successfully expanded. Provision of textbooks, school materials and uniforms would also increase the quality of and demand for education. Although sometimes subject to political inference, student loan programs have proven successful at allowing students from poor families to attend universities. If introduced, these loans should be merit-based and cover tuition, fees and living expenses. Banks should be responsible for loan processing and recovery with the government providing some guarantee on the repayment;
- Supply-side factors also constrain enrollment by the poor. Availability of facilities is an issue in some rural areas (particularly at the secondary level) and particularly in the bateyes. Obviously, improving the quality of the basic education systems, through teacher training, textbook provision, and school aids (including the expansion of computer education in secondary schools) would also increase demand for education.

13. The Government should forcefully implement the Health Sector Reform and Modernization Program to improve equity, which could be complemented by the following:

- Reorientation of government social spending toward the expansion of preventive and primary health care interventions in poor and rural areas (using the poverty map developed by ONAPLAN), with an emphasis on maternal-infant health, vaccines, potable water in rural areas, prevention and early detection of TB, family planning, and health education including HIV/AIDS awareness programs particularly in the border areas with Haiti, including the bateyes;
- Review the existing procurement, storage and distribution of medication by the public sector for higher efficiency.

14. **Public housing programs need immediate restructuring for improved effectiveness in combating poverty.** The analysis clearly shows that bad housing conditions are strongly correlated with poverty. In addition, most houses are vulnerable to earthquakes and hurricane and a number of poor dwellings are located in zones vulnerable to flooding and landslides. Key reforms to improve the housing conditions of the poor include:

- Modifying housing policies to eliminate the current practice of political patronage and the provision of subsidies to professionals and organized middle and upper income groups;
- Conducting a thorough review of public spending on housing, beneficiaries and institutions involved;
- Reorganizing the housing programs and consolidating all funds in a single agency to avoid duplication and increase effectiveness;
- Coordinating actions among agencies;
- Building by the private sector with communities' participation;
- Explicitly targeting spending on the poorest and most vulnerable families using the Poverty Map.

15. **Several programs with considerable impacts on the housing condition of the poor could be pursued:**

- A **national land/housing titling/registry program** to regularize irregular settlements. Such a program introduced in Chile in the 1970s has proven to be very cost effective, providing security to families who want to build a home;
- A **program to improve drainage of rain water** would have the highest impact intervention in flood-prone areas;
- **Examine options for alternative accommodation** of households in flood-prone and contaminated areas. Such program could have several integrated components including rehabilitation of the area to prevent new settlements, and enforcement of the existing environmental policy to prevent further contamination.

16. **Spending on nutrition and social assistance programs should be reviewed, rationalized and streamlined to ensure a comprehensive, efficient, and well-targeted social safety net.** Although some of the existing nutrition and social assistance programs rightly address key poverty issues (compensatory education, and tailored interventions for specific vulnerable groups), a number of actions should be taken to streamline spending on these programs and ensure a more comprehensive, efficient and well-targeted safety net:

- Conduct a thorough review of the impact and efficiency of public spending, including the nutrition and feeding programs, on the poor;
- Rationalize the existing social assistance programs by eliminating some programs (such as the nutrition and feeding programs) and combining other programs to avoid duplication;

- Explicitly target spending on all social assistance programs, including existing school feeding and community investment programs, reducing or eliminating allocations to areas with a low incidence of poverty and shifting these resources to poorer areas;
- Develop mechanisms to protect annual budget allocations for programs and interventions with a proven record of reaching the poor;
- Use resources generated from better targeting of social assistance programs to invest in ECD programs and pre-primary education and expand some programs that are tailored to specific vulnerable groups (e.g., SESPAS *Proteccion al Anciano* program).

17. **Public spending on basic infrastructure should be allocated according to gaps and poverty criteria.** The precise mix of infrastructure needs differs significantly by geographic area. In broad terms, the outcome of the consultations with the communities conducted by the *Consejos Nacionales de Desarrollo* indicates the following priorities: potable water, local roads and electricity in rural areas and the bateyes; and garbage collection and potable water, sewerage and sanitation in urban areas (Table 5.5). These priorities are consistent with the analysis of disparities in assets conducted in Chapter 2. The upcoming 2001 extended Labor Force Survey (see below) would provide detailed information on existing gaps and coverage in infrastructure services. ONAPLAN's poverty map should be updated using the outcome of this survey. A mapping of the infrastructure gaps should then be overlaid with the updated poverty map to facilitate the allocation of public spending according to poverty and service gaps (giving priorities to communities which have a high prevalence of poverty and service gaps).

Table 5.5: Priorities as Identified by the Communities by Geographical Area

Bateyes ^{1/}	Rural Areas ^{2/}	Urban Areas ^{3/}
<ul style="list-style-type: none"> • Potable water • Electricity • Transportation, roads • Sanitation services • Schools • Social and community centers • Housing • Child care centers • Recreational space 	<ul style="list-style-type: none"> • Potable water • Local roads • Electricity • Housing 	<ul style="list-style-type: none"> • Garbage collection • Potable water and sewerage • Sanitation • Pollution • Violence, drugs • Local roads • Housing • Electricity • Recreational space

^{1/} Social Capital Qualitative Survey in the Bateyes, World Bank, 2000.

^{2/} Based on ESU-96.

^{3/} Social Capital Qualitative Survey in Urban Slums, World Bank, 2000.

B.4. Decentralizing and Increasing Community Participation

18. **Decentralization of, and community participation in, service delivery should improve the effectiveness of poverty-reduction interventions.** The Poverty Strategy should emphasize decentralization of the administration and implementation of various functions and services to the local level in order to improve accountability, quality, and sustainability of service delivery. The strategy also highlights the importance of community participation as a way to boost local ownership and client satisfaction, mobilize additional resources, improve accountability among service providers, and build social capital. Some examples include:

- Decentralizing personnel decisions to provincial health units under SESPAS and strengthening primary health care services through the creation of an innovative network of public, private and NGOs service providers;
- Based on the success of the pilot project carried out in Sabana de la Mar, decentralizing food purchases under the school lunch program by transferring block grants to selected rural and remote communities for local food procurement;
- Expanding the practice initiated by the program *Comunidad Digna* to use communities and NGOs as intermediaries for the identification, design, development and execution of social programs;
- Greater reliance on community expression of preferences for investments, both for services provided by line ministries and for demand-driven local investment funds. The approach of the program *Consejos Nacionales de Desarrollo Provincial y Barrial* to work with the communities identify and prioritize their needs and coordinates with the line ministries to provide the corresponding services and projects need to be reinforced. The allocation of resources to the poor based on a demand basis (rather than the conventional supply-dominated form) has proved successful in meeting the needs of the poor and creating the incentives for the poor to organize themselves and increase their social capital. The Foundation for Development of San Jose de Ocoa, directed by Father Quinn is very successful in following this approach. It makes funds available to poor communities on a competitive grant or loans basis. Communities prepare project proposals which are evaluated and implemented depending on funds availability. The communities need to contribute in the form of labor to the project which increases ownership and sustainability. Other such examples abound like PROMANACHS in Peru or PROSABAR in Bolivia.

B.5. Developing and Using Targeting Mechanisms to Reach Priority Groups

19. **Targeting resources to the poor is a crucial tool for improving the impact and cost-effectiveness of public spending and interventions.** Targeting improves cost-effectiveness and impact by concentrating public resources on those who need them the most. Geographic targeting (via the poverty map developed by ONAPLAN) is the main tool being used for targeting mainly basic infrastructure. This poverty map is based on a multivariate analysis of poverty. This method uses statistical analysis of survey data to select the variables most strongly associated with poverty along with the weights they exhibit in statistical analysis. The variables are then used to construct a poverty index, normally ranging from 0 (poorest) to 100 (richest). Program eligibility begins from the poorest up to a predetermined cut-off point on the index, established according to the program's budget and target population. This cut-off point is then modified so that program eligibility expands (or contracts) with changes in economic conditions. This approach entails a number of advantages, most notably administrative ease: communities can be selected ex-ante for interventions based on their concentration of poor people. Efforts should be made to improve the existing poverty map by using data from the ENGIH 98 survey and an extended version of the quarterly Labor Force Survey (as part of the MECOVI program, CB and ONE are expected to work together to introduce some social modules to this survey) that the Central Bank is expected to conduct in April 2001. Also, the poverty map should be updated regularly in the future using the outcome of the Census scheduled for November 2001 and the Living Standards Measurement Survey (LSMS) scheduled for 2003/04. However, in some areas (e.g., large urban cities like Santo Domingo or Santiago), large diversity in poverty profiles and sample limitations prevent creating poverty mapping tools at more disaggregated community or neighborhood levels. As such, some programs (e.g., PROMESE's essential medicines or transfer programs to priority groups such as poor and malnourished children and poor single mothers) should use the poverty map with other targeting mechanisms to target public funding to the priority groups (Annexes 5.1 and 5.2). The selection of individual indicators strongly correlated with poverty, such as income (means-testing) or anthropometric

assessments can be useful (though administratively burdensome) to further fine-tune targeting in such instances. Self-targeting can also be used for the delivery of services clearly used more by the poor than the non-poor (e.g., targeting benefits via health posts, sub-centers and centers which are disproportionately used by the poor or self-targeted employment programs for unskilled labor on public works).

B.6. *Monitoring the Poverty Situation and the Implementation of the Strategy*

20. **Monitoring of both the poor and the strategy is necessary, and adequate resources should be made available for this task.** The poverty alleviation strategy includes two key monitoring components:

- **Monitoring the poverty situation.** For this first component, it would be desirable for the Government to develop a poverty monitoring system to track living conditions and provide the data for the evaluation of the impact of public interventions. The system will build on the April 2001 extended version of the Labor Force Survey and the 2001 Census to prepare the LSMS scheduled for 2003/04 and then execute such a survey every two years. The LSMS should incorporate key supplements to generate information on the status of key risk groups and on the targeting outcomes and efficiency of the main social programs. The incidence and coverage of all social protection programs, including income-support programs, education-based transfers, community-based strategies, labor market programs, subsidized medication programs, feeding programs and low-income housing programs should be included in the survey. The survey should also monitor priority poverty groups;
- **Monitoring and evaluating the poverty strategy.** The Government should also adopt a number of actions to monitor the implementation of the poverty strategy, including: detailing actions for the strategy period in an action plan, specifying actions for each year, and developing monitoring indicators that will be tracked by each institution. Program-specific questions should be included in the household surveys to facilitate such monitoring. While all ministries have the responsibility for ensuring the implementation of the poverty alleviation strategy, ONAPLAN could be in charge of monitoring the poverty situation while the *Consejo Nacional de Lucha contra la Pobreza* could be in charge of the coordination and implementation of the strategy. Resources should also be made available for evaluating the poverty impact of specific additional interventions.

C. *Road Map of Key Actions for Poverty Reduction*

21. **Table 5.6 outlines key constraints and actions in the main strategic areas for poverty reduction as well areas for further research.** The general timing of the implementation of these actions is also indicated. Some key steps for immediate implementation in 2001 include:

- Conducting a thorough review of public expenditures on the social programs including education, health, housing, and nutrition and social assistance interventions and developing proposals for rationalization of the existing programs and reallocation of expenditures so that they better reach the poor for the 2002 budget;
- Elaborating a Government-owned Poverty Reduction Strategy including priority poverty groups and an action plan for interventions in key areas, including: education, health, housing, nutrition and social assistance programs, basic infrastructure, land and property titling, financial and insurance services and urban and rural poverty including the bateyes. It is desirable that the elaboration of the strategy involve the civil society, including the poor. The Poverty Reduction Strategy should also define the entity responsible for the implementation of the strategy including the overall coordination

of the social assistance programs among ministries and other public entities to avoid duplication and other inefficiencies;

- Defining the entity responsible for coordinating the monitoring of the poverty situation. This entity would be responsible for developing a set of indicators to monitor the implementation of the strategy (including key budget categories), and establishing an inter-ministerial process for reporting on such indicators and implementation;
- Updating the Poverty Map prepared by ONAPLAN as a tool for targeting and resource allocation.

Table 5.6: Road Map of Key Actions for Poverty Alleviation

(***=top priority; **=medium priority; *=priority; ST= Short Term (1 year period); MT= Medium Term (1-3 year period); LT= Long Term (more than 3 years); Action = period for implementation of actions; Impact = period for impact on poverty)

CONSTRAINTS	RECOMMENDATIONS			
Key Issues	Key Actions	Priority	Period	
			Action	Impact
Deepening Economic Reforms: Priority for poor in all areas				
<p>Economic growth is essential for poverty reduction. It is also the most effective way to create employment.</p> <p>Implementing key structural reforms will also reduce disparities in economic opportunities and key assets such as labor, physical assets, basic infrastructure and credit and insurance.</p>	<p>Key reforms:</p> <ul style="list-style-type: none"> • Modernize the State • Further trade reform • Introduce competition in the financial sector • Foster competitiveness • Enforce mitigation measures against catastrophic risks • Maintain flexibility in the labor market • Introduce pension reform • Reform the health security system (see under health) • Continue land distribution • Expand and modernize land tenure regime 	<p>***</p> <p>***</p> <p>***</p> <p>***</p> <p>***</p> <p>***</p> <p>**</p> <p>***</p> <p>***</p>	<p>On-going</p> <p>On-going</p> <p>ST</p> <p>On-going</p> <p>ST</p> <p>On-going</p> <p>ST</p> <p>MT</p> <p>On-going</p> <p>On-going</p>	<p>MT</p> <p>MT</p> <p>MT</p> <p>ST</p> <p>ST</p> <p>ST</p> <p>ST</p> <p>MT</p> <p>ST</p> <p>ST</p>
Defining a Poverty Alleviation Strategy				
<p>Absence of an overall Poverty Alleviation Strategy</p> <p>Lack of inter-institutional coordination</p> <p>Lack of targeting mechanisms</p> <p>Lack of monitoring of the poverty situation</p>	<ul style="list-style-type: none"> • Develop a Poverty Alleviation Strategy including prioritization among poverty groups, coordination among institutions, rationalization of the existing programs and reallocation of savings toward priority groups • Develop and use targeting mechanisms and the Poverty Map to reach the priority groups • Monitor both the poverty situation and the implementation of the strategy 	<p>***</p> <p>***</p> <p>***</p>	<p>ST</p> <p>ST</p> <p>ST</p>	<p>MT</p> <p>MT</p> <p>MT</p>
Regulating the Migration Flow From Haiti and Developing Cooperation				
<p>Lack of legal working documents allows for unfair competition between Haitian migrants and unskilled Dominicans</p> <p>Absence of development strategy for the island of Hispaniola as a whole</p>	<ul style="list-style-type: none"> • Examine ways of regularizing the status of Haitian migrants • Develop political and economic cooperation to improve economic conditions on the whole island 	<p>***</p> <p>**</p>	<p>ST</p> <p>MT</p>	<p>MT</p> <p>LT</p>

CONSTRAINTS	RECOMMENDATIONS			
Key Issues	Key Actions	Priority	Period	
			Action	Impact
Education: Priority for poor in all areas, especially young children				
<p>Disparities in access Main gaps are:</p> <ul style="list-style-type: none"> • Early Childhood Development programs: all poor, esp. urban • Pre-primary: all poor, esp. rural • Primary: all poor, esp. rural and peri-urban • Secondary: all poor, esp. rural • Higher: all poor (but less of priority) <p>Demand-side factors are key constraints</p> <p>Availability of schools more of a problem at pre-school level in all areas and secondary level in rural areas</p>	<p>Reallocate first and increase spending second by:</p> <ul style="list-style-type: none"> • Increasing cost recovery in higher education (decreasing public subsidies and raising fees) to free up resources • Introducing community-based ECD programs in poor urban areas • Increasing spending allocated to pre-primary in poor areas, esp. rural • Increasing spending in primary and secondary in poor areas, esp. rural <p>Ease demand constraints through:</p> <ul style="list-style-type: none"> • Targeted compensatory education programs • Targeted scholarships for the poor (esp. rural poor) for primary and secondary education <p>Ease supply constraints through:</p> <ul style="list-style-type: none"> • Targeted creation of ECD programs in poor urban areas • Ease supply constraints for pre-primary school through targeted expansion • Ease supply constraints for primary and secondary schools through targeted expansion 	<p>***</p> <p>***</p> <p>***</p> <p>***</p> <p>***</p> <p>**</p> <p>***</p> <p>***</p> <p>**</p>	<p>ST</p> <p>MT</p> <p>ST</p> <p>ST</p> <p>MT</p> <p>MT</p> <p>MT</p> <p>MT</p> <p>MT</p>	<p>ST</p> <p>LT</p> <p>MT</p> <p>LT</p> <p>MT</p> <p>MT</p> <p>LT</p> <p>LT</p> <p>LT</p>
<p>Low quality schooling mostly in rural areas (lack of books, materials, insufficient teachers, dilapidated infrastructure)</p>	<p>Improve quality by providing inputs to schools in poorest areas using the Poverty Map:</p> <ul style="list-style-type: none"> • Providing textbooks at primary and secondary levels free of charge on a loan basis • Providing school materials at primary level • Improving facilities on a demand-driven basis with priority to poor areas 	<p>***</p> <p>***</p> <p>***</p>	<p>On-going</p> <p>On-going</p> <p>On-going</p>	<p>MT</p> <p>MT</p> <p>MT</p>
<p>Functional inefficiencies</p>	<p>Improve efficiency of public spending by:</p> <ul style="list-style-type: none"> • Decentralizing administration/staff and some spending decisions (e.g., materials) • Building planning capacity in Ministry of Education • Introduction of management information system and evaluation system • Improving incentive system for teachers by linking pay to performance 	<p>**</p> <p>**</p> <p>**</p> <p>**</p>	<p>MT</p> <p>MT</p> <p>MT</p> <p>MT</p>	<p>MT</p> <p>MT</p> <p>MT</p> <p>MT</p>

CONSTRAINTS	RECOMMENDATIONS			
Key Issues	Key Actions	Priority	Period	
			Action	Impact
Health: Priority for poor in all areas, especially bateyes				
General: Continue with the implementation of the Health Sector Reform and Modernization Program				
<p>Low coverage from health plans, esp. among the poor (5% are covered). Main causes:</p> <ul style="list-style-type: none"> • Current health and social security legislation is archaic and does not protect the poor • Private health providers practice risk selection and exclusion and operate within a regulatory void. 	<p>Improve access to health plans by:</p> <ul style="list-style-type: none"> • Reforming the health security system including coverage for the poor (after introduction of pension reform) • Strengthening regulation of private health providers 	<p>***</p> <p>***</p>	<p>On-going</p> <p>On-going</p>	<p>MT</p> <p>MT</p>
<p>Organization/functional inefficiencies</p> <ul style="list-style-type: none"> • Fragmented health care system • Over centralization leading to poor management, lack of accountability, inability to respond to local needs • SESPAS has weak policy-making, financing, and regulatory capabilities, deteriorated infrastructure, and weak management and information systems. • Inefficient private delivery of health service • Deficient referral flow • Poor coordination between primary care facilities and hospitals • Inefficient public procurement of medication by SESPAS and PROMESE 	<p>Improve the organization of the health sector</p> <ul style="list-style-type: none"> • Developing national health policies, including decentralization and inter-institutional coordination • Decentralize services • Strengthening primary care services by the creation of a network of public, private and NGOs service providers • Restructuring SESPAS (human resources, resource allocation mechanisms, management information systems for supervision and monitoring) • Setting standards for public and private health care providers • Implement hospital reform and modernization 	<p>**</p> <p>**</p> <p>***</p> <p>**</p> <p>**</p> <p>**</p>	<p>On-going</p> <p>On-going</p> <p>MT</p> <p>MT</p> <p>MT</p> <p>On-going</p>	<p>MT</p> <p>MT</p> <p>LT</p> <p>MT</p> <p>MT</p> <p>MT</p>

CONSTRAINTS Key Issues	RECOMMENDATIONS			
	Key Actions	Priority	Period	
			Action	Impact
<p>Low access to health care among the poor, and very limited access among Haitian-Dominicans</p> <p>High infant mortality rate (49 per 1,000) correlated with mother's education (85 per 1,000 for uneducated mothers) Main causes: communicable diseases (infectious and parasitic diseases) and conditions originating in the peri-natal period.</p> <p>High mortality rate for children below 5 years (49 per 1,000) Main causes: malnutrition, lack of immunization, absence of curative health services and difficult local conditions like access to potable water.</p> <p>High maternal death (180 per 100,000) related to poverty Main causes: Deficiencies in coverage and quality of both prenatal care and care provided during childbirth and in the immediate postpartum.</p> <p>Social public health issues: <i>Teenage pregnancy, violence, alcoholism and drugs</i></p>	<p>Improve access to health care by:</p> <ul style="list-style-type: none"> Evaluating factors limiting access (cost versus availability of facilities) Expand coverage of cost-effective preventive and primary health interventions (maternal-infant health, vaccines, potable water in rural areas, prevention and early detection of TB, family planning, and health education including HIV/AIDS awareness) for the poor 	***	ST, MT	MT
		***	MT	MT
<p>Low quality health care for the poor (lack of supervision and incentives, lack of medicines, physical deterioration, supply shortages, staffing deficiency)</p>	<p>To improve quality and efficiency:</p> <ul style="list-style-type: none"> Decentralize services Create a network of public, private and NGOs service providers to strengthen primary care services Developing new health care models (<i>Nuevo Modelo de Atención</i>) at the provincial level Separate financing and provision of services Strengthen policy, regulation and management capabilities in SESPAS 	***	On-going	MT
		***	MT	MT
		***	On-going	MT
		**	MT	LT
		**	MT	LT

CONSTRAINTS	RECOMMENDATIONS			
Key Issues	Key Actions	Priority	Period	
			Action	Impact
Biases in public spending <ul style="list-style-type: none"> Public services are mainly curative and located in urban hospitals, depleting resources from primary and preventive services for patients in rural and peri-urban areas where most of the poor are located. Public resources are misallocated (overstaffed central ministry, regional concentration, excessive reliance on physicians) PROMESE is inefficient and untargeted (benefits non-poor) 	To improve equity in public spending: <ul style="list-style-type: none"> Collect data on cost by type and level of service for thorough incidence analysis Target spending on new investments toward the expansion of preventive and primary health interventions in poor and rural areas (using the Poverty Map) Reorient spending in favor of preventive and primary care and away from tertiary care Improve public procurement of medication Improve functional efficiency Target the poor 	***	MT	MT
		***	MT	MT
		***	On-going	MT
		***	ST	ST
		***	ST	ST
		***	ST	ST
Housing				
General: Conduct a thorough review of the impact and efficiency of housing programs Define a housing policy with assistance targeted to those most in need				
Duplication of functions/lack of coordination among public agencies.	<ul style="list-style-type: none"> Conduct a thorough review of public programs on housing, beneficiaries and institutions involved Reorganize the housing programs and consolidate all funds in a single agency Coordinate actions among agencies 	***	ST	MT
		***	ST	MT
		***	ST	MT
Lack of targeting. Existing programs assist non-poor and are subject to political inference	<ul style="list-style-type: none"> Eliminate political patronage and the provision of subsidies to non-poor Explicitly targeting spending on the poorest and most vulnerable families using the Poverty Map 	**	ST	MT
		**	MT	LT
Inefficiencies in program delivery (High cost houses and subsidies to non-poor)	<ul style="list-style-type: none"> Contract the private sector to build/renovate with communities' participation 	**	MT	MT
Nutrition and Social Assistance Programs				
General: Conduct a thorough review of the impact and efficiency of social assistance and nutrition programs				
Compensatory Education Programs (school feeding, cash transfers) <ul style="list-style-type: none"> Inadequate targeting to poor Inefficiencies in implementation 	<ul style="list-style-type: none"> Improve targeting to poor using nutritional and Poverty Map criteria Decentralize food procurement in remote and rural areas following pilot program of <i>Sabana de la Mar</i> 	***	MT	MT
		***	On-going	ST

CONSTRAINTS	RECOMMENDATIONS			
Key Issues	Key Actions	Priority	Period	
			Action	Impact
Other nutrition and feeding programs <ul style="list-style-type: none"> Lack of targeting Political inference 	<ul style="list-style-type: none"> Evaluate impact and targeting of feeding programs Downsize and/or eliminate Reallocate resources to priority programs 	<ul style="list-style-type: none"> *** *** *** 	<ul style="list-style-type: none"> ST ST ST 	<ul style="list-style-type: none"> ST ST MT
Presidency – PROMESE <ul style="list-style-type: none"> Lack of targeting Inefficiency in implementation 	<ul style="list-style-type: none"> Evaluate the program and improve targeting Improve procurement practices 	<ul style="list-style-type: none"> *** ** 	<ul style="list-style-type: none"> ST ST 	<ul style="list-style-type: none"> MT ST
Special group assistance programs (CONANI's <i>Ayúdame a Ser Niño</i> program, SESPAS <i>Proteccion al Anciano</i> program and other old-age pension programs)	<ul style="list-style-type: none"> Evaluate impact and targeting of programs Coordinate and target old-age pension programs 	<ul style="list-style-type: none"> ** ** 	<ul style="list-style-type: none"> ST ST 	<ul style="list-style-type: none"> MT MT
Local social investment programs Presidency – Pro-comunidad Presidency – Comunidad Digna	<ul style="list-style-type: none"> Evaluate impact and targeting of programs Reform to focus exclusively on inter-agency coordination and away from financing 	<ul style="list-style-type: none"> *** *** 	<ul style="list-style-type: none"> ST ST 	<ul style="list-style-type: none"> MT MT
Basic Infrastructure				
General: <ul style="list-style-type: none"> Investments should be targeted to the poor by superimposing the Poverty Map on an inventory of existing infrastructure services Priorities should be demand-driven based on community participation Implementation by the private sector with community participation 				
Key issues in rural areas: <ul style="list-style-type: none"> Access to potable water were deficient Access to transport, roads Access to electricity 	<ul style="list-style-type: none"> Coordinate multi-agency effort to improve access to potable water Construction, rehabilitation and maintenance of rural access roads Installation of rural electrification (following definition of overall electricity policy) 	<ul style="list-style-type: none"> *** *** *** 	<ul style="list-style-type: none"> ST MT On-going 	<ul style="list-style-type: none"> MT MT ST
Key issues in the bateyes: <ul style="list-style-type: none"> Access to potable water Access to electricity Access to transport, roads 	<ul style="list-style-type: none"> Coordinate multi-agency effort to improve access to potable water Installation of electrification Construction, rehabilitation and maintenance of rural access roads 	<ul style="list-style-type: none"> *** ** ** 	<ul style="list-style-type: none"> ST MT MT 	<ul style="list-style-type: none"> MT MT LT
Key issues in urban areas: <ul style="list-style-type: none"> Access to sanitation and garbage services Access to potable water Pollution Efficiency of public transport 	<ul style="list-style-type: none"> Improve drainage of rain water Expand access using the Poverty Map Improve access to water by increasing cost recovery Enforce environmental norms Promote entry and competition in public bussing; rehabilitation and maintenance of urban streets; improvement of traffic management 	<ul style="list-style-type: none"> *** ** ** ** ** 	<ul style="list-style-type: none"> ST MT ST On-going ST 	<ul style="list-style-type: none"> ST MT MT MT ST

CONSTRAINTS	RECOMMENDATIONS			
Key Issues	Key Actions	Priority	Period	
			Action	Impact
Land and Property Titling				
<p>In rural areas, poor lack land and titles to their land. Lack of land and titles have negative impact on income</p>	<ul style="list-style-type: none"> Pursue land titling together with land distribution Improve efficiency of land cadastre, titling, and registry system; give priority to areas with high concentration of poor (via Poverty Map). 	**	On-going	MT
		**	MT	MT
<p>In urban areas, poor lack titles to their homes. Lack of titles hampers ability to leverage credit for income generation.</p> <p>Settlements in at-risk zones increase vulnerability to catastrophic events</p>	<ul style="list-style-type: none"> Identify and rectify inefficiencies in titling and registry system; adopt outreach campaign to inform poor of procedures and opportunities; give priorities to areas with largest concentration of poor. Examine options for alternative accommodation of households in at-risk zones, and rehabilitate land to prevent new settlements 	*	ST	MT
		*	ST	MT
Income Generation and Financial and Insurance Services				
<p>Poor lack access to savings and credit services, which are crucial for consumption smoothing and income generation</p> <p>Poor lack access to insurance against accidents</p> <p>Poor lack access to insurance against catastrophic risks (hurricanes, earthquakes, etc.)</p> <p>Poor rural communities do not have access to appropriate technology to enable them to diversify production and improve productivity</p>	<ul style="list-style-type: none"> Adopt actions to extend titling of land and property to poor (see above); which can be used as guarantees for credit Evaluate demand- and supply-side constraints for providing better access to financial services to poor Adopt innovative approach to reach the poor (e.g. strengthen financial intermediaries specialized in micro finance (NGOs), solidarity groups) Remove interest-rate subsidies Introduce insurance against accident as a component of the social security system (see health and pension) Enforce mitigation measures (compliance with building codes, prevent settlement in at-risk zones, conduct awareness campaign) Provide extension services and technical assistance for the production and marketing of agricultural products 	**	On-going	MT
		**	ST	MT
		**	On-going	MT
		**	ST	ST
		**	On-going	ST, MT
		***	ST	MT
***	MT	LT		

CONSTRAINTS	RECOMMENDATIONS			
Key Issues	Key Actions	Priority	Period	
			Action	Impact
Building Social Capital				
Social capital helps communities reduce vulnerabilities, increase opportunities and leverage assistance. While the poor tend to live in communities with higher social capital, these ties are stronger in the bateyes and weaker in urban areas	<ul style="list-style-type: none"> • Work with community groups in determining local investment needs and setting up appropriate institutional arrangements to provide greater “voice” and participation for the poor • Provide funds to communities for direct investment in social capital in response to their request (e.g., to finance community centers, spots areas, etc.) 	***	On-going	ST
		**	MT	LT
Areas for Further Research				
<ul style="list-style-type: none"> • Public expenditure analysis, including the distributional incidence and efficiency of social assistance and nutrition programs and the management of the corresponding expenditures. • More thorough analysis of the impact of existing labor legislation and Haitian migration on the labor market in terms of overall segmentation, unemployment, and the informal sector; leading to specific recommendations • Research to explore the links between poverty and the environment especially in urban slums • Analysis of the impact of the social security system proposal on the poor (as well as fiscal implications) • Participatory research to examine obstacles to increased school enrollment and attendance especially at the secondary level • Poverty analysis of the island of Hispaniola focusing on linkages between the DR and Haiti 				

Annex 5.1
Direct Income Support Programs to Alleviate the Impact of Trade
and Agricultural Reforms on Small Farmers
International Experiences

1. **Direct income support programs are designed to accompany structural reforms (trade, agriculture, etc.) which aim to encourage price competitiveness.** For example, lowering tariffs and eliminating import quotas on basic goods, would lead to a decline in domestic prices and benefit consumers, particularly the poor. Such reforms would also force domestic producers to become more competitive. While large farmers have access to credit and new technologies and competitiveness, small farmers may not be able to adjust. Consequently, it is often recommended that price reductions be partially offset by an increase in direct aid payments, thus providing small farmers with a fair standard of living.

2. **Direct income support subsidy payments are efficient mechanisms to alleviate the negative impact of macroeconomic reforms on farmers.** The principle of the direct payment is that it cannot be based on something over which the producer has control. For example, it cannot be based on how many tons of rice he produces in the current year; if it does depend on that criteria, it is just like giving him a higher price for his rice. For this reason, direct support cannot be used to encourage the production of specific crops or the use of specific inputs. The principle of providing subsidies through lump sum payments instead of through prices is called “decoupling” or “delinking” support from prices. In the EU, Mexico, and the US, the reduction of price supports has been accompanied by full or partial compensation to farmers through de-coupled payments based on production in some baseline period in the recent past. This is important: payments each year either stay the same or are reduced by a pre-determined formula. They do not change from year to year based on that year’s input use or output production.

3. **In the European Union, Common Agricultural Policy (CAP) reforms since 1992 have brought the prices of many important agricultural products (particularly cereals) much closer to world prices, and reforms are continuing.** Subsidy payments in the EU are increasingly linked to farmers’ measures to conserve resources or to regional development. Profound reforms in their agricultural commodity policies towards less reliance on price support programs have also taken place in recent years in Canada, New Zealand, and Australia, as well as in many middle-income developing countries, especially in Latin America. In Mexico, for example, support through pricing and the subsidy (measured as Producer Subsidy Equivalent, or PSE) fell from 30 percent in 1992-94 to only 5 percent in 1995, and has been replaced by direct income support.

4. **In Mexico, PROCAMPO is a direct income transfer program to compensate farmers who face US and Canadian competition as a result of NAFTA. The beneficiaries are producers of 9 traditional crops (corn, beans, rice, wheat, sorghum, barley, soybeans, cotton, and cardamom).** The program was launched in 1994 and is expected to last 15 years. Throughout that period the program provides a fixed income of US\$70 per year per hectare regardless of production as long as the land continues to be used for agricultural production. The impact of PROCAMPO on the Ejido sector was recently assessed. Its main findings were: (i) participation is very high covering about 90 percent of Mexico’s cultivated areas, (participation was equally strong among small, medium, and large farmers); (ii) on average PROCAMPO payments provide 8 percent of Ejidatario household income, but the program contribution represents up to 40 percent of income for farmers in the poorest decile; (iii) although PROCAMPO was not designed as an anti-poverty program, PROCAMPO, as could be expected of a cash-transfer program, reduces poverty; and (iv) there is initial evidence that the program has generated a multiplier effect on the income generating potential of its beneficiaries. The main hypothesis for this finding is that either through the effect of cash availability or the reduction in risk aversion of its

beneficiaries, the program may help increase investments and facilitate the choice of riskier activities that have higher rates of return.

5. **Direct income support programs present several advantages.** First, they increase the productivity of the agricultural sector, as farmers are encouraged to make production and input use decisions on the basis of international market prices. This leads to a reduction in agricultural prices. Second, it allows better budget planning and execution; since the amount of subsidy depends neither on how much input is used nor on the output produced, the total budget is completely predictable. Third, it leads to better predictability of income for farmers since payments do not depend at all on current production and input use. Importantly, predictable payments can also be pledged as collateral for loans. Fourth, it allows direct targeting to farmers most in need of assistance. Direct payments can be targeted at those small, poor farmers who consume the majority of their production and so do not benefit much from high support prices, and also use few purchased inputs.

6. **Some implementation issues deserve special attention.** Among these are the development of a transparent and reliable registry of farmers (and other rural residents). There are several options for developing such a register, but they all require time and resources. Many countries have used existing cadastre and land registration records and census information as a starting point. Other issues include determining the size of the transfer, the payment basis and the payment means (cash vs. input vouchers, among others). A pilot program can be implemented to test the logistics of different mechanisms and approaches to the registry of farmers, and to monitor farmers' attitudes and responses to a direct income support program.⁵

⁵ Such a pilot program for 10,000 farmers is currently under implementation in Turkey under a World Bank Economic Reform Loan Project. A national input voucher program for about 4.5 million farmers was introduced in Romania to replace input subsidies and crop purchases by the government in 1997 (Castañeda-Fernandez, 1997).

Annex 5.2

Design and Implementation of Income-support Programs in the Dominican Republic

1. **Designing and implementing income-support programs requires the identification of beneficiaries, the determination of transfer amounts and the design of effective monitoring and evaluation procedures.**

- **Identification of beneficiaries.** The selection criteria should be transparent, objective and difficult to manipulate by prospective beneficiaries or administrators. Also, the system used to identify beneficiaries should be cost effective. In the DR, a system for selecting beneficiaries needs to be developed. The cost of setting up comparable systems in other countries has been about US\$7-8 over three years, per family registered in the system. Thus the registration of the 192,000 households in the lowest income decile (equivalent to 815,000 persons) would cost about US\$1.5 million over three years, while registering all households in the lowest three income deciles would cost three times as much or US\$4.5 million.⁶
- **Determination of transfer amount.** This amount should be set low enough so as to limit program outlays and not too severely affect work incentives, but high enough to have a welfare impact on the household (so that poor families are not deterred from program participation). There are no widely agreed upon precise criteria for calculating the benefit amount. However, the benefit should be 'inframarginal' i.e., less than a threshold level of basic survival expenditures (i.e., the cost of the basic food basket). A rule of thumb often used in both developed and developing countries is to establish the transfer value at about 40 percent of the food consumption basket of the poor. Accordingly, in the DR a reasonable transfer value would be about US\$12 per capita per month, representing 40 percent of the cost of the basic food basket (US\$30 per capita per month, or the extreme poverty line).⁷ Program costs excluding administration can be estimated following this rule of thumb. For example, providing all unemployed 25-64 year olds who live in extreme poverty (32,000 people) with a monthly transfer of US\$12 implies an annual outlay of US\$4.6 million.
- **Design of effective monitoring and evaluation procedures.** Program monitoring should include the regular revision of operations and budget indicators by an independent auditing and ex-post evaluation agency. Evaluation should assess program targeting as well as its impact on beneficiaries. This could be done by drawing random samples of beneficiaries and non-beneficiaries of the program. Experience in other countries suggests that an annual budget of about US\$1.5 million would be sufficient to finance surveys and evaluation studies.

⁶ Ideally, this system would be used to administer most if not all central (and potentially provincial) targeted programs. In addition to identifying program beneficiaries, such a system can be an excellent diagnostic tool to assess the characteristics of the poor at the regional and national level, and design programs best suited to their needs.

⁷ In terms of payment means, there are several options: cash, electronic transfers, check or vouchers for specific goods (i.e., food stamps) and services. Cash and electronic transfers are the superior alternatives as they are the most liquid, but require strict security measures (in the case of cash) or have a high administrative cost (electronic transfers). Checks are a safer alternative but require a widely available network of banks and highly accurate information system that minimizes administrative errors. Food stamps or other types of vouchers are an alternative when for political reasons or other reasons (usually misuse of benefit funds) the government does not want to issue cash. Food stamps and other vouchers have one important disadvantage—they require additional logistical arrangements for printing of the stamps, and for redemption procedures, which raise administrative costs.