A WORLD BANK COUNTRY STUDY

El Salvador

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The World Bank
Washington, D.C.

First printing March 1998

ISSN: 0253-2123

Library of Congress Cataloging-in-Publication Data

El Salvador, rural development study / [prepared for FUSADES].
p. cm. — (A World Bank country study, ISSN 0253-2123)
Includes bibliographical references.
ISBN 0-8213-4181-2
1. Rural development—El Salvador. 2. Rural poor—El Salvador.
3. Agriculture—Economic aspects—El Salvador. I. Fundación
Salvadoreña para el Desarrollo Económico y Social. II. World Bank.
III. Title: Salvador, rural development study. IV. Series.
HN190.Z9C67 1998
338.1'87284—dc21 97-52178
CIP

Preface

The original impetus for this study was a request from FUSADES to the World Bank for a joint effort to develop a strategy for rural areas and agriculture that would be available to the Government of El Salvador. For this reason, in collaboration with the Bank and under the direction of Jaime Acosta, FUSADES played a central role in the selection of topics, prepared some background documents, was directly involved in the implementation of the household survey of the rural sector undertaken in January-February 1996, supported Bank missions on the field, and provided the financial support for the preparation of some of the background reports.

The Study was coordinated by Alberto Valdés in collaboration with Ian Bannon and Cora Shaw. Contributors included Cora Shaw, John Dixon, Stefano Pagiola, Susana Sánchez, Rodrigo Chaves, Carlos Cuevas, Hemant Shah, Mathew McMahon, Peter Lanjouw, Florencia Castro-Leal (Bank); Ramon López and Jorge Quiroz (consultants) who provided background papers and technical notes. The contribution of FUSADES was coordinated by Jaime Acosta, and had the direct support of Margarita San Feliú, Rafael Lemus, Vilma de Calderón, Myriam Cruz and Carlos Restrepo.

Financial support was received from the United States Agency for International Development (USAID), El Salvador, and from the International Center for Economic Growth (ICEG) for the collection and analysis of the rural household survey. We are particularly grateful to Mary Ott, USAID office in San Salvador, and Rolf Lüders, director of the ICEG.

Following a brief diagnosis, the report contains two parts. The first, Enhancing Competitiveness, presents what currently were considered critical factors requiring special attention regarding the economic, technical and institutional development of the agricultural sector so as to realize its full potential for efficient growth by enhancing competitiveness. Chapter III on the Rural Financial Sector, is based on a companion World Bank report on the rural sector entitled *Rural Finance: Performance, Issues and Options*, which presents an assessment of the main features and policy recommendations regarding the rural finance sector. The second part, on Social and Environmental Conditions, presents a diagnosis and suggests principal elements of a strategy for alleviating rural poverty and for dealing with land degradation problems. The basic information used for the analysis in this report extends until approximately August 1996.

Abstract

After a decade of civil conflict, El Salvador has recorded impressive overall economic growth in the 1990s. However, during this period agricultural growth has lagged considerably below the rest of the economy. This slow recovery after the conflict raises concerns about the capacity of the sector to raise incomes and employment in rural areas. This study represents a joint effort between FUSADES and the World Bank to develop a strategy for rural areas and agriculture. The report contains two parts. The first, Enhancing Competitiveness for Agriculture, presents what were considered the critical factors requiring special attention regarding the economic, technical and institutional development of the sector. The second part on Social and Environmental Conditions, presents a diagnosis and suggests principal elements of a strategy to alleviate rural poverty and for dealing with land degradation problems. A forthcoming companion report: *El Salvador Rural Finance: Performance, Issues and Options* presents an assessment of the main features and policy options regarding the rural financial sector, and its recommendations are included here.

Although the objectives of sectoral growth and poverty alleviation are interrelated, they require a different set of instruments and policies. Beyond fostering growth, it is necessary to implement a range of additional measures for addressing rural poverty, with a focus on people, not just farms. The potential for a significant response exists in El Salvador today. Ultimately, this response will depend on the willingness of private agents to invest significantly more in the sector, and on the capacity of the government to provide the key public goods essential for agricultural development. The profound influence of macroeconomic variables on the sector's response cannot be ignored.

CURRENCY EQUIVALENTS

Currency Unit = Colón (¢)
$1.0 = ¢8.75

FISCAL YEAR

January 1 to December 31

WEIGHTS MEASURES

Metric System
1 hectare (ha) = 1.4 manzana
1 ton = 22.22 quintales (qq)

MAIN ABBREVIATIONS AND ACRONYMS

AGDP	Agriculture Gross Domestic Product
BCR	Central Bank (*Banco Central de la Reserva de El Salvador)*
BFA	Agricultural Development Bank *(Banco de Fomento Agropecuario*)
CACM	Central American Common Market
CCs	Credit Cooperatives (Cajas de Crédito)
CEM	Country Economic Memorandum
CENTA	National Center for Agricultural and Forestry Technology (*Centro Nacional de Tecnología Agropecuaria y Forestal*)
CGIAR	Consultative Group on International Agricultural Research
CNR	National Registry Center (*Centro Nacional de Registros*)
DGRNR	General Directorate of Renewable Natural Resources (*Dirección General de Recursos Naturales Renovables*)
D.L.	Legislative Decree (*Decreto Legislativo*)
EDUCO	Community Education Program (*Educación con Participación de la Comunidad*)
FEDECACES	Federation of Salvadoran Credit Unions (*Federación de Asociaciones Cooperativas de Ahorro y Crédito de El Salvador*)
FEDECREDITO	Federation of Credit Banks *(Federación de Cajas de Crédito*)
FOB	Free on Board
FOSAFFI	Financial Sector Recapitalization Fund (*Fondo de Saneamiento y Fortalecimiento Financiero*)
FINATA	National Financing Institution of Agricultural Land (*Financiera Nacional de Tierras Agrícolas*)
FUSADES	Salvadoran Foundation for Economic and Social Development (*Fundación Salvadoreña para el Desarrollo Económico y Social*)
GOPA	Agrarian Policy Options Group (*Grupo de Opciones de Política Agraria*)
IRA	Supply Regulating Institute (*Instituto Regulador de Abastecimientos*)
ISTA	Salvadoran Institute of Agricultural Transformation (*Instituto Salvadoreño de Transformación Agraria*)
MAG	Ministry of Agriculture and Livestock (*Ministerio de Agricultura y Ganadería*)
MOPW	Ministry of Public Works *(Ministerio de Obras Públicas*)
OCTA	Coordinating Office for Agrarian Themes (*Oficina Coordinadora del Tema Agrario*)
PROCAFE	Coffee Producers' Association
PTT	Land Transfer Program (*Programa de Transferencia de Tierras*)
RER	Real Exchange Rate
SSF	Superintendency of the Financial System (*Superintendencia del Sistema Financiero*)
VAT	Value Added Tax

Responsible Managers and Staff

Vice President	:	**Mr. Shahid Javed Burki**
Director	:	**Ms. Donna Dowsett-Coirolo**
Staff Members	:	**Mr. Alberto Valdes and Ms. Cora Shaw**

EXECUTIVE SUMMARY

MAIN FINDINGS AND RECOMMENDATIONS

El Salvador has recorded impressive overall economic growth in the 1990s, averaging 6.7% during 1991-95. However, during this period agricultural growth has lagged considerably below the rest of the economy, at about 2.5%, which raises concerns about the long-run capacity of the sector to raise incomes and employment in rural areas, and contribute to overall growth. Agriculture has been slow to recover after the conflict, and as a result the sector's share of GDP has fallen from 13.8% in 1975 to only 9% in 1995, despite the fact that still approximately 55% of the population lives in rural areas, mostly depending on agricultural related activities. A major concern underlying this study is the considerable poverty prevailing among rural households, a much higher incidence of poverty than in urban areas. The study shows that about 46% of the rural population of the country are poor, and 19% are extremely poor. Furthermore, prelimary data suggests that about 31% of the country's farm land is degraded, which could have an adverse impact on agricultural growth and welfare, particularly among low-income small farmers in certain areas.

The main objectives of this sector review are to: (i) develop a strategy to revitalize the agricultural sector and realize its full potential for efficient and sustainable growth by enhancing competitiveness; and (ii) present the main findings of the analysis of rural poverty and develop its implications for the design of a strategy for poverty alleviation.

Sector Background

The modest growth of agriculture (AGDP) masks large variations. The growth rate of some important subsectors is stagnating (cotton, coffee, livestock, forestry) while others (basic grains, sugar, and poultry) have experienced much higher growth since 1990 (around 5% per annum). Exports of traditional agricultural products have decreased in value and as a share of total exports, from an average of 70% ($679 million) during 1981-85 to 28% ($303 million) over 1990-95. This performance is greatly affected by the reduction of coffee exports and the virtual disappearance of cotton production. Agricultural imports, of which over three quarters are basic grains (77%), represent a small and declining share of total imports, from an average of 6.5% during 1981-85 to 3.3% for 1991-94.

In 1995, 70% of agricultural land was devoted to basic grains. This subsector accounts for 68% of producers engaged in agriculture, and of these 63.7% operate farms of less than 2 ha., many of them cultivating in low-potential land. The share of marketed output was 55 % for maize, and 32-45% for sorghum. Commercial production, on the other hand, is more export oriented, selling traditional export products (coffee, sugar, rice and shrimps) and non-traditional products (pineapple, melons, fodder, and other products).

Although basic crop yields in El Salvador compare favorably with neighboring countries, increases in productivity have been very low in most crops over the past 15 years. For many crops, and especially for staples such as maize and beans, most of the increases in production have come from an increase in area. Since the country no longer has new areas to bring into production that are not fragile, the expansion of traditional small-scale (subsistence) farming areas poses complex challenges on technology generation and transfer system, as well as farm restructuring, which are elaborated on below.

Since 1989, El Salvador has moved rapidly to open its economy, lowering the level and dispersion of tariffs, eliminating price controls, accompanied by elimination of controls on the marketing of export products, and the elimination of the state marketing agency (IRA). Currently, tariff rates for agricultural imports (average rate of 39%) are not too different from tariffs in other sectors. The abolition of export taxes benefited traditional exports such as coffee.

As in several Latin American economies, in El Salvador agricultural trade and price reforms are taking place against a backdrop of significant declines in real farm prices of tradables in domestic markets, which lowers profitability in farming. The two most important determinants which explain the decline in domestic producer prices are the exchange rate appreciation—influenced by the substantial increase in remittances from abroad—and uncompetitive domestic marketing and financial sector conditions.

El Salvador has experienced major transformations in land tenure, as a result of the agrarian reform (which redistributed approximately 300,000 ha) and the implementation of the Peace Accords. Recognizing the need to adjust its strategy on the rural sector, the Government articulated a new agrarian policy in 1994. Recent legal reforms (contained in the legislative package approved in May 1996) should contribute to the development of more flexible land markets in agriculture. However, this report identifies major areas which require further attention. The main challenge is to facilitate the development of a flexible and efficient land market without the perverse effects of massive land reconcentration or atomization, and at the same time diversify sources of income of the rural poor, be they landless or landed.

Formulation of a Rural Strategy

The proposed rural strategy is based on two fundamental objectives: the recovery of agricultural growth, and a continued and significant reduction in rural poverty. Although these two objectives are interrelated, they require a different set of instruments and policies. While agricultural growth should be seen as an indispensable element of a strategy to alleviate rural poverty, it is not a sufficient condition. Beyond fostering growth, it is necessary to implement a range of additional measures for addressing rural poverty, with a focus on people, not just farms.

The most appropriate response to the slowdown of the sectoral growth is a strategy to enhance competitiveness. Such a strategy should focus on: (a) removal of the existing uncompetitive structure in marketing for some agricultural products and purchased inputs; (b) enhancing the capability of El Salvador's agricultural technology generation and transfer; (c) commitment to an active policy on agricultural land that eliminates land tenure insecurity, removes restrictions to freer land markets, finalizes the land transfer program under the Peace Accord, and supports voluntary transformation of agrarian reform cooperatives; (d) strengthening of the rural financial system; (e) implementation of an expanded program of investment in rural roads; and (f) reversal of land degradation. The specific recommendations on these important policies are discussed below.

The potential for a significant sector response exists in El Salvador today. Ultimately, this response will depend on the willingness of private agents to invest significantly more in the sector, and on the capacity of the Government to provide the key public goods essential for agricultural development. Security of property rights, better infrastructure, and higher levels of human capital appear to be the most important ingredients to stimulate greater private investment. However, the profound influence of macroeconomic variables on the sector's response cannot be ignored. A continued appreciation of the exchange rate in the future would impose a substantial barrier to the recovery of a large subsector of agriculture.

The proposed strategy for poverty alleviation emphasizes public sector initiatives on: (a) fostering rural nonfarm employment; (b) more and better quality education which can enhance the economic prospects of the poor; (c) health services and in-kind transfers targeted to the rural poor; (e) consolidation of the land transfer program; (f) support and strengthening of the national land regularization program (land titling and cadastral base registry); (g) technical assistance and rural financial services adjusted to the special needs of the small farmers; and (h) creative approaches to family planning.

Enhancing Competitiveness: A Strategy for Efficient Growth

The study reveals major deficiencies in (domestic) marketing channels and highlights the need to develop a comprehensive strategy for (domestic) market development. Such a strategy should include: (i) removal of (indirect) barriers to entry to attract fresh capital and entrepreneurship into marketing, processing and distribution; (ii) removal of institutional constraints for the financing of storage activities; (iii) the development of warrant mechanisms and tradable warehouse receipts as collateral for credit during harvest time; (iv) improvements in marketing infrastructure and information flows, (v) increased competition in order to reduce the very high processing costs (slaughter, processing and distribution) in the beef industry; and (vi) modern rules for standardization and classification in the various commodity markets.

To take advantage of international trade, El Salvador must maintain an open trade regime, with relatively low and uniform border protection on imports, including agricultural products. The report suggests re-examining the trade regime in order to:

- make the export drawback applicable to all export products. Today it favors non-traditional exports and there is little justification for such discriminatory treatment;
- make the value added tax (VAT) applicable to all products, to eliminate discrimination against agricultural activities which have to pay VAT on inputs but are exempted at the output level;
- reduce the level of protection to chicken meat and/or increase protection to white maize to align it with the tariff on other agricultural products (15-20%);
- deal with an exceptional upsurge in imports and/or reduction in import prices, El Salvador can make use of a safeguard scheme in compliance with the World Trade Organization. The proper legal and institutional framework for such safeguards has to be in place; and
- increase self-sufficiency through higher protection in response to food security concerns—in the sense of uncertainty about access to imported food supplies—should not be a valid concern for El Salvador's agricultural policy. The ccuntry is a small importer in world markets and should have no problem in securing import supplies on time, if foreign exchange is available and traders and processors face no administrative delays in the Government's processing of imports. Agricultural imports today represent less than 4% of total imports.

The exchange rate appreciation since approximately 1991 has been substantial (the real exchange rate declined by 7.5% per year during 1990-95) and it is one important determinant of the decline in real domestic prices for several products observed during 1991-95—for rice (69%), sorghum (41%), milk (33%), cattle (33%), and others. Increasing marketing costs is the other major determinant explaining the decline in real (domestic) producer prices.

Although the real exchange rate is an important determinant of agricultural prices, the policy implications that can be derived from the current situation are far from obvious and a detailed analysis of the Salvadoran exchange rate policy is beyond the scope of this report. However, RER appreciation has been an important determinant of the decline in real domestic farm prices. As discussed in Annex 2, however, a nominal devaluation would be an option to correct the colón's real appreciation, but it would be difficult to sustain an increase in the RER through nominal devaluations as long as the forces responsible for the strong currency (*i.e.*, high inflows of remittances) persist. In fact, adopting a totally market-determined nominal exchange rate could well push up the value of the currency further, reducing farm profitability.

The Rural Financial Sector

El Salvador has implemented substantive reforms and liberalization of the financial sector, creating conditions where financial intermediation can function without the burden of excessive regulation and pricing restrictions. However, access to credit by rural households remains severely limited. In 1995, for example, less than 12% of rural households received a loan and about 20% had outstanding debt balances from formal or informal sources. The feeble participation of rural households is explained by both demand- and supply-side limitations. The study also makes the point that the share of agriculture in formal sector credit has declined significantly during 1991-1995. This decline seems to reflect the relatively poor sectoral performance associated with its deteriorating terms of trade.

This report identifies three major areas on which special attention is required: (i) governance, supervision, and regulation of the main rural financial intermediaries (BFA, FEDECREDITO, FEDECACES); (ii) financial sector competitiveness and supervision; and (iii) technological transfer and modernization of rural financial services provision.

On governance, regulation and supervision, the main recommendations are the following: all non-financial operations presently assigned to BFA should be eliminated. A rigorous audit should then be performed in order to determine the market value of BFA's equity. A detailed analysis of the Bank's options could then be undertaken. This analysis could examine options such as the privatization of portions of BFA's branch network into independent units. Government should relinquish control of FEDECREDITO and the credit cooperatives (CCs) should be left outside of SSF supervision . The Government is considering the unification of the regulation, governance, charter and status of the savings and credit cooperatives (*cooperativas de ahorro y crédito,* SCCs), most of them affiliated to FEDECACES, and the *cajas de crédito* affiliated to FEDECREDITO. This reform should be broader to cover non-bank financial intermediaries, with or without cooperative ownership. This broader legislation should consider that the nature of the incentives implied by each institutional form (e.g., governance rules) may justify in some cases different prudential regulation for each charter. In particular, this new framework for SCCs should have specific rules preventing "borrower domination" (extraction of benefits by coalitions of members at the expense of the organization's financial viability), for establishing reserves and allowances, for insider lending, and for reserve requirements comparable to those of other deposit-taking institutions.

The main recommendations on (ii) above emphasize the consolidation of the restructuring and liberalization of the banking system, debt refinancing/forgiveness programs totally removed from the menu of policy interventions, and the strengthening of SSF through training and modernization. Specific initiatives in these 3 areas are presented in Chapter III.

Regarding technology transfer and modernization ((iii) above), the main recommendations are:

- ***Technology Transfer***: (a) provide government support for the adoption of innovative lending techniques and financial management systems, using as example Financiera Calpiá; and (b) promote pilot programs to familiarize financial intermediaries with innovative lending and deposit mobilization systems through specialized technical assistance, training and equipment, under a careful start-up subsidization scheme. The adoption of innovative techniques and methods should encourage formal intermediaries such as commercial banks to reach traditional under-served populations.

- ***New Financing Instruments***: consolidation of the reforms currently in progress and: (a) clarify rules that govern leasing; (b) set guidelines and uniform treatment for leasing, factoring and discounting of commercial paper; (c) develop framework for asset-backed securities, reducing notary costs and eliminating multiple taxes; (d) improve system for creating, perfecting and enforcing collateral security interests; (e) modernize registries to reduce transaction costs and delays associated with registering security interests such as mortgages and liens; and (f) consider the 1995 Country Economic Memorandum (CEM) recommendation to expand use of liens on inventory and commercial equipment.

Agricultural Research and Technology Transfer

The development of an efficient research and extension system is key for the modernization of the agriculture sector. The technology system in El Salvador faces daunting tasks—increasing productivity of a stagnant traditional sector, while preserving a precarious resource base, and developing innovations in an increasingly competitive world.

While there is an array of institutions, public and private, involved in research and especially technology transfer, most of the resources are concentrated in the public institution, CENTA, with a large dependence on outside grants and loan funding. Its research focuses on plant breeding and agronomy on basic grains, livestock and forages, fruits and vegetables and fiber and oilseeds. However, there are many areas in the chain of production that are not being attended to. Sector specific private sector agencies cover coffee (PROCAFE) and sugar.

The national strategy for research is distinct from the Government's strategy for its own research focusing on small farmers. The Government should, in collaboration with the private sector and universities, articulate a long-run research strategy which should include the objectives of diversity of implementation, management and financing between these three players; interaction between all participants in the system (research institutes, universities, farmers and international partners), and competition which rewards most competent and efficient use of resources.

A strategy for the future should include:

- Definition of research needs. Given its limited resources, CENTA priorities are to attend the small and medium farmers, including small scale farming in hillsides, and it should continue to do so. CENTA should not undertake research and extension that benefits larger or more commercially oriented producers, which should be a responsibility of the private sector.
- The quality of human capital is the weakest link in the technology and transfer system in El Salvador. It is necessary to put in place a long-term plan for the development of scientists (Ph.D. level) that is consistent with national research priorities.
- A priority should be to rebuild the research capacity of universities and funding for research made available to its faculties. Agronomy faculties have been allowed to deteriorate in terms of personnel and facilities, and at present are not in a position to contribute much in research. Furthermore, in terms of quality of education, there are many advantages for an agricultural knowledge system that has as one component a university research faculty. Joint private sector-university initiatives should be given priority and contracting out specific research through competitive bidding could provide a strong stimulus to the re-establishment of the capacity of the university system.
- It is suggested that a medium to long-term strategy needs to gradually transfer management of the extension system to farmer associations, cooperatives, and community groups. Public financing would still play a role in the delivery of extension to small farmers, but it may gradually move to subcontracting to private and NGO sectors for the provision of extension.

- Since at present most of the financing for research and extension comes from the public sector, most of the new financing strategy will have to be based on both public and private sector contributions. Goals should be set over the medium to long term, and for the relative contribution of both the private and the public sectors. It is recommended that a target of 1.5% of AGDP be set for total research expenditures to be reached over a five-year period.
- Reform of the extension system. It is recommended that the publicly-funded extension system should be targeted to serve exclusively the small farmers, and that the delivery of the extension system could be transferred to private agents and NGOs, under a system in which CENTA retains a critical role for: (i) registry of qualified extension agents under the publicly-funded system; (ii) determining general guidelines for the operation of the system; and (iii) monitoring and supervising implementation.

Rural Roads Infrastructure

Infrastructure improvements, particularly on roads, have obvious, positive impacts on the competitive position of agriculture as well as welfare benefits in terms of integrating low income farmers and landless workers into larger and more diverse labor and product markets. Having year-round usable roads would bring important benefits in lowering transport costs, improving access to basic social services and markets, bringing into production land presently abandoned, opening areas with tourism potential, and increased scope to attract investment.

The analysis suggests there would be high payoffs to an expanded program of investment in rural roads. Social rate of return estimates ranged between 14 and 300% (not taking into account potential benefits from tourism, commerce, fishing). Rural road improvement would have the greatest impact in areas with potential for intensive agricultural production, about 610,000 ha, and coffee-growing areas, about 196,000 ha. Priorities within this group include: (i) areas most affected by the conflict, where road maintenance was neglected; (ii) areas that have the greatest potential for intensive land use, such as those with irrigation potential; and (iii) coffee-growing areas with the greatest need for improved rural roads, covering about 79,000 ha in various Departments. Criteria (i) above would have a direct link with poverty alleviation, while criteria (ii) and (iii) would indirectly contribute to poverty alleviation through employment generation.

Agricultural Export Diversification

Despite several government efforts to diversify exports, agricultural non-traditional exports have not expanded significantly. El Salvador has several very favorable conditions for the expansion of non-traditional exports, including proximity to North America, preferential access to US markets, climatic conditions that facilitate a wide range of high value exportables throughout the year, and others.

The principal constraints for the expansion of such exports, according to the study commissioned by FUSADES, are: (i) the very limited supply of agronomists and other experts with knowledge and experience in the production and marketing of non-traditional products, particularly those cultivated under irrigation; and (ii) inadequate infrastructure relevant for the marketing of perishables including rural roads, telecommunications, and cold storage facilities in ports. For the very small farm sector, the considerable fragmentation of farm units raises the cost of technical assistance, input delivery and marketing where larger volumes of quality and homogenous produce are required

The principal government role in alleviating these constraints is basically similar to those for the sector as a whole. The special needs of this sector would be enhanced by some specific institutional arrangements. For example, the creation of a Commission for the Development of Agro-Exports to coordinate activities of government, the private sector, and NGOs, should be examined.

Social and Environmental Conditions

Achieving a higher rate of efficient agricultural growth should be an indispensable element in any strategy to alleviate rural poverty. The most appropriate way to promote growth in the sector is by enhancing competitiveness. However, it is not a sufficient condition. The process of rural strategy formulation and effective rural development requires a focus on rural people, not just farms.

Rural Poverty

Socio-Demographic Characteristics of Rural Areas. Family size has a strong effect on per capita income in rural El Salvador. An inverse relationship is observed between income per capita on the one hand, and both family size and the dependency ratio (ratio of dependents to workers) on the other. The survey of the rural sector shows that, on average the head of household in rural El Salvador is about 46 years old, and supports, with the help of other household members, an average household size of 6 persons, 4 of which are dependents, typically children. This high dependency ratio is a salient feature of the demographics of the household found in the lower two income quintiles (referred to as the poorest). In contrast, one finds that in the upper two income quintiles, 3 working members support 1 dependent. This suggest that if poor families could reduce the dependency ratio and reduce family size to that of non-poor families, their per capita household income could increase almost 35%. This would be enough to raise a significant proportion of poor households above the poverty line.

The adult population in rural areas reports extremely low levels of education, 3 years (on average) for all income groups, 2-3 years average for the poorest, and 3-7 years for the heads of higher income households. There appears to be a positive trend, in that children (13-17 years) are completing a significantly higher level of education than their parents (over 5 years of schooling) and the gap in schooling between poor and non-poor rural populations is narrowing substantially.

The returns to education significantly increase wage income (particularly in off-farm non-agricultural activities) but have shown a negligible effect on farm productivity in the past. This is consistent with findings for Colombia, Honduras and Paraguay. The main value of education has been to provide the skills that enable rural people to move out of agriculture and migrate to towns and cities.

Income and Income Sources. Average per capita income in the rural sector is $460, slightly less than 50% of the national average. The poorest derive approximately 50% of their household income from agricultural wage labor, while the higher income population earns only about 18% from this source. This fact underscores the importance of an active, well functioning rural labor market.

Remittances from abroad are received largely by the middle- and higher-income households, not by the extreme poor. Only 7% of the poorest households receive remittances, while over 20% of the higher income population do.

On average, landless rural workers employed mainly in agriculture are the poorest segment of the rural population, while farmers and even the landless employed in some occupation other than agriculture earn more than twice the per capita income of landless agricultural workers. In general, farmers are better off than landless workers, as 47% of farmers are in poverty, while 71% of landless workers in agriculture are poor.

However, the percentage of farmers in extreme poverty is quite similar to that of landless agricultural workers, at 27% and 30% respectively. In fact, adjusted for adult equivalence, the incidence of extreme poverty among landless agricultural workers is lower than among farmers. Thus, among the poorest households, both farmers and landless workers in agriculture are equally poor.

Access to Land. Access to land appears to be one of the most important determinants of household income. For an average rural household, an increase in land ownership of 10% will boost its per capita income nearly 4%. Given an elasticity of land to income of 0.4, other things equal, farm size would have to be expanded from 2 ha to 5 ha to bring farmers up to the extreme poverty line, and as much as 12.6 ha to surpass the poverty line. These estimates underline the limitation of relying solely on land redistribution to alleviate poverty among the rural poor, and the importance of non-land factors in the poverty equation.

Rural Nonfarm Employment

Nonfarm rural employment appears to offer a route out of poverty. For a large number of small farmers who do not have the potential to diversify into more dynamic products, as well as for landless laborers, the best option in the medium to long term will be off-farm employment, in some cases including migration to other regions and urban areas. The experience in Europe, United States, and in several developing countries indicates that in spite of the secular decline in the importance of agriculture in GNP, off-farm employment provides a substantial and increasing share of total rural employment, and provides income opportunities for a very large proportion of households in small farms.

Therefore, an important component of a comprehensive strategy for the development of rural areas and alleviation of rural poverty is to deepen and extend the relationship with non-agricultural activities within rural areas. The study finds that 36% of the economically active rural population was employed in the non-agricultural sector, and the ratio of women to men in this subsector is greater than that of women to men overall. There is a strong evidence that higher income nonfarm jobs go to those with higher levels of education. The uneducated also tend to find jobs in less productive activities, but which are of value in relieving poverty somewhat.

Off-farm employment income can expand only if the regional economies are diversified into year-round activities, including agroprocessing, services, and manufacturing. A major limitation on such diversification is the lack of adequate infrastructure, particularly roads and telecommunications.

Who Uses Basic Services in Rural El Salvador

The rural poor are severely underserved by basic social services in health, education, sanitation, and electricity and they have the worst basic needs indicators in El Salvador.

Schooling. One third of the rural population cannot read and write. Literacy programs need to be targeted to rural areas, particularly the poor in these regions.

The primary school system needs to improve its internal efficiency by promoting early enrollment and decreasing repetition rates, focusing particularly on the rural poor. EDUCO schools reach the poor but not the poorest rural children. Less than one-fourth of EDUCO children are in the poorest regions. Improved EDUCO targeting to these regions can improve the poverty focus of EDUCO.

School expenses are too high for the poor, which is one important reason why more than one third of the rural poor primary school-age children are out of school.

Health. Public health services are not targeted to the poor in rural areas. More than one third of the population reported some type of illness and more than a third of those falling ill did not use modern health care.

In-kind Transfers. Almost half of in-kind transfers to rural areas are in food. But less than one fourth of all beneficiaries of the school feeding program are among the rural poor. Improving targeting of public food programs would require either a system of means testing or geographic targeting of schools in poor areas.

Land

El Salvador has a substantial history of land reform policy since approximately 1980. In part to address civil unrest and in part to alleviate poverty, El Salvador has given considerable emphasis to land policy. A land reform program that began in 1980 redistributed approximately 295,000 ha of land, and land redistribution under the Peace Accord has expanded the process of land transfers.

El Salvador is a land-scarce country, in fact one of the most densely populated in Latin America with approximately 1.1 ha of arable land per person actively engaged in agriculture. This report suggests that El Salvador does not have enough farm land area to allocate to poor small farmers and landless workers so as to make them viable farmers with a reasonable chance of surpassing the poverty line. The challenge is to enhance competitiveness and income-generating opportunities in rural areas. Relying primarily on land redistribution to alleviate rural poverty is unrealistic.

This report identifies what is believed is the new land paradigm in El Salvador and presents five major areas in which efforts on land policy should be concentrated:

- Finalize as quickly and efficiently as possible the land transfer program under the Peace Accords, and support voluntary parcelization by agrarian reform cooperatives.
- Streamline agrarian reform institutions (ISTA and Land Bank). The closure of ISTA and the Land Bank is recommended, transferring remaining functions to other technical agencies. MAG/GOPA can oversee land auctions and subsidies for PTT parcelization. Cooperatives should be free to hire private providers for their needs.
- Clean up the backlog of the adjudicated agrarian cooperatives according to Decrees 699 and 719. This includes titling and debt cancellation.
- A program to reduce land tenure insecurity is essential. Land records and the cadastral system are out of date. Only about 40% of properties are registered, and of those, less than a third have cadastral references. Registration is not obligatory and involves substantial transaction costs. The Government is carrying out a Land Administration project with the aim of regularizing land property rights in all lands. This effort deserves priority.
- Remove restrictions to freer land markets. A clear policy statement on security of land rentals for the owner and tenants may be needed to encourage longer-term rental contracts. The removal of land market regulations for agrarian reform land and efficient implementation of debt forgiveness, as approved in Decrees 699 and 719, as well as increased protection of land property rights under regularization would improve transparency and reduce the costs of land sale and rental transactions.

Land Degradation Problems

Land degradation is considered to be the most important natural resource management problem in El Salvador. However, based on the survey data collected for this study, the analysis indicates that the extent and severity of land degradation problems in El Salvador are substantially lower than is commonly perceived. Degradation affects about 31% of fields farmed by households. The data available are insufficient to measure the severity of degradation, but it is significant that most farmers do not expect severe problems.

The analysis concludes that there is no need for new broad, national-level policies. What are needed are targeted interventions to address specific problems experienced in specific areas. Land degradation problems are highly site specific. To identify the necessary interventions, improved data will be required. Because of the wide diversity of agro-ecological conditions in each department, available data (which is collected on a departmental basis) provide very little information on land degradation problems and offer little guidance in the development of appropriate policy responses. Thus the need for a data collection program according to agro-ecological conditions, supplemented by targeted research efforts aimed at measuring the linkages between different land use practices and long term productivity.

The Growth Barriers for a Subset of the Small, Subsistence Farmers

The analytical part of this study covers aspects of production and poverty considered most critical and addresses the issue of what factors limit small farmers' participation in the formal economy. The strategy to enhance competitiveness developed in this report, emphasizes technology, roads, incentives, land markets, and rural finance, and will help most farmers—poor and non-poor—to expand output and increase income. There is, however, a subset of the poorest farmers in El Salvador, very small subsistence producers farming in relatively unproductive land, who are unlikely to benefit from the strategy sufficiently to rise above the poverty line. They might not be viable farmers. The poverty alleviation strategy for this group cannot be limited to their options as full-time farmers, it must address nonfarm options as well.

A more thorough approach would consider their opportunities as: (i) part-time farmers if off-farm opportunities develop nearby; (ii) migrating to other areas, which requires registered titles to enable them to rent or sell their land at market values; and (iii) for the elderly, explore the possibilities of initiating a pension plan in which these farmers can retain ownership of their house and a small plot of land. Remaining in their homes allows the elderly to retain the support of family, relatives and friends, and sell or rent the rest of the land in exchange for the pension payment. Participatory community development in a scheme under which a grant transfer from the Central Government is allocated to the county or district association is a vital component of the solution. But these households must count on sustainable income generation activities. For many of them, this is not in full-time farming.

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