

IFAD • IICA

STRATEGIES FOR THE ALLEVIATION
OF RURAL POVERTY IN LATIN
AMERICA AND THE CARIBBEAN

3

SMALLHOLDERS AND
STRUCTURAL CHANGE IN
THE BRAZILIAN ECONOMY
Opportunities in Rural
Poverty Alleviation

Gary Howe / David Goodman



Published by the
International Fund
for Agricultural Development (IFAD)
in collaboration with the Inter-
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FOREWORD

SMALLHOLDERS AND STRUCTURAL CHANGE IN THE BRAZILIAN ECONOMY: OPPORTUNITIES IN RURAL POVERTY ALLEVIATION is the third in a series of studies planned by the International Fund for Agricultural Development (IFAD) in collaboration with the Inter-American Institute for Cooperation on Agriculture (IICA), with the goal of defining strategies for alleviating rural poverty in Latin America and the Caribbean. This series is designed to broaden understanding of the generation and persistence of rural poverty in the region, and of how political and macro-economic contexts directly affect the rural poor. The series also presents examples of policies and strategies designed to ameliorate factors causing poverty, to tap the productive potential of the rural poor, and to promote the greatest possible participation in the benefits of a project by the poorest stratum of the rural population.

These volumes draw upon the whole of IFAD's highly experienced staff of economists and operational analysts, whose cumulative contribution to a grassroots, participatory approach has built up the "IFAD style" in development. In this approach, poverty alleviation efforts are placed within an overall investment strategy aimed at accelerating economic growth by tapping the under-used potential of poor groups.

The series has been inspired in part by the relative paucity of studies which stress the interaction between micro- and macro-economic analysis and which treat development from the perspective of the poor themselves.

Brazil represents an important case in Latin America, combining the persistence of poverty in a very large group of rural small-scale producers and landless with dynamism in medium- and large-scale sectors of

agricultural production. The issue is how small-scale producers can participate in the process of economic expansion, a question which has become particularly pressing with the weakening of some of the factors that led the growth of large producers. The response involves an understanding of how agricultural modernization has given new dimensions to the processes generating rural poverty, as well as of the changing structure of opportunities faced by small-scale producers and the landless. Exploitation of these opportunities will require reflection by Government upon sectoral policies, as well as upon the design and implementation of development interventions directed to the poor, interventions which, in the past, have involved significant resources but generated relatively few returns.

Idriss Jazairy
President, IFAD

ABBREVIATIONS AND ACRONYMS

ABCAR	Brazilian Association for Credit and Rural Assistance (Associação Brasileira de Crédito e Assistência Rural)
ACAR	Association for Credit and Rural Assistance (Associação de Crédito e Assistência Rural)
ANCAR	Northeast Association for Credit and Rural Assistance (Associação do Nordeste de Crédito e Assistência Rural)
APCR	Small Rural Community Support Programme (Programa de Apoio a Pequenas Comunidades Rurais)
BB	Bank of Brazil (Banco do Brasil)
BNB	Bank of Northeast Brazil (Banco do Nordeste do Brasil)
CODEVASF	São Francisco Valley Development Company (Companhia de Desenvolvimento do Vale do São Francisco)
CPATSA	Centre of Agricultural Research for the Semi-Arid Tropics (Centro de Pesquisa Agropecuária do Trópico Semi-Arido)
DNOCS	National Department for Anti-Drought Works (Departamento Nacional de Obras Contra as Secas)
EMATER	State Technical Assistance and Rural Extension Agency (Empresa de Assistência Técnica e Extensão Rural)
EMBRAPA	Brazilian Agricultural Research Company (Empresa Brasileira de Pesquisa Agropecuária)

EMBRATER	Federal Technical Assistance and Rural Extension Agency (Empresa de Assistência Técnica e Extensão Rural)
ENDEF	National Study of Family Expenditures (Estudo Nacional de Despesa Familiar)
FGV	Getulio Vargas Foundation (Fundação Getulio Vargas)
FIBGE	Brazilian Institute of Geography and Statistics (Fundação Instituto Brasileiro de Geografia e Estatística)
FINOR	Northeast Investment Fund (Fundo de Investimentos do Nordeste)
GDP	Gross domestic product
GEIDA	Irrigation Executive Group for Agricultural Development (Grupo Executivo de Irrigação para o Desenvolvimento Agrícola)
GNP	Gross national product
GRAPEP	Farmer/extension/research discussion groups (initiated under PAPP)
GTDN	Working Group for the Development of the Northeast (Grupo de Trabalho para o Desenvolvimento do Nordeste)
IBGE	Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatística)
IGP-DI	General Price Index (Índice Geral de Preços)
IPA	Agricultural Research Institute (Instituto de Pesquisa Agropecuária)
IRDP	Integrated Rural Development Project
MIRAD	Ministry of Agrarian Reform and Development (Ministerio de Reforma Agrária e Desenvolvimento Agrícola)
MVR	Highest Reference Value (Maior Valor de Referência)
NGO	Non-Governmental Organization
OTN	Indexed Treasury Bonds (Obrigações do Tesouro Nacional)
PAPP	Programme of Support for Small Rural Producers (Programa de Apoio ao Pequeno Produtor Rural)
PDSFN	National Land Tenure Administration Development Programme (Programa de Desenvolvimento do Sistema Fundiário Nacional)
PIN	National Integration Plan (Programa de Integração Nacional)

POLONORDESTE	Development Programme for Integrated Areas in the Northeast (Programa do Desenvolvimento de Areas Integradas do Nordeste)
PPI	Multiyear Irrigation Programme
PRFN	Project for Landholding Regularization in the Northeast
PROCANOR	Special Programme of Assistance for the Poor of the Sugar Zones of the Northeast (Programa Especial de Apoio as Populações Pobres das Zonas Canavieiras)
PROHIDRO	Programme for the Exploitation of the Hydraulic Resources of the Northeast (Programa de Aproveitamento do Recursos Hidricos do Nordeste)
PROINE	Northeast Irrigation Programme (Programa de Irrigação do Nordeste)
PROTERRA	Programme for Land Redistribution and Stimulation of Agroindustry in the North and Northeast (Programa de Redistribuição de Terras e de Estimulo a Agro-Industria do Norte e do Nordeste)
SNCR	National Rural Credit System (Sistema Nacional de Credito Rural)
SUDENE	Superintendency for the Development of the Northeast (Superintendencia do Desenvolvimento do Nordeste)
VBC	Basic Cost of Production (Valor Basico de Custeio)

State and Regional Abbreviations

AL	Alagoas	PB	Paraiba
BA	Bahia	PE	Pernambuco
CE	Ceara	PI	Piaui
CW	Centre-West	RN	Rio Grande do Norte
DF	The Federal District	SE	Sergipe
GO	Goias		
MA	Maranhão		
MG	Minas Gerais		
MS	Mato Grosso do Sul		
MT	Mato Grosso		
NE	Northeast		

WEIGHTS AND MEASURES

1 metre (m)	=	3.28 feet
1 kilometre (km)	=	0.62 miles
1 hectare (ha)	=	10,000 m ² = 2.47 acres
1 square kilometre (km ²)	=	100 ha = 0.385 square miles
1 cubic metre (m ³)	=	1.3 cubic yard
1 litre (l)	=	0.264 US gallons
1 kilogramme (kg)	=	2.2 pounds
1 ton	=	1,000 kg = 2.205 pounds
1 kw	=	1.340 hp

CURRENCY EQUIVALENTS

Exchange Rate, Annual Averages

1984	Cz	1.85	=	US\$ 1.00
1985	Cz	6.20	=	US\$ 1.00
1986	Cz	13.61	=	US\$ 1.00
1987	Cz	41.00	=	US\$ 1.00
1988 (est.)	Cz	620.00	=	US\$ 1.00

22 February 1989 Official Rate NCz 1.00 = US\$ 1.00

Fiscal Year

1 January - 31 December

Selected Country Data (Cont.)

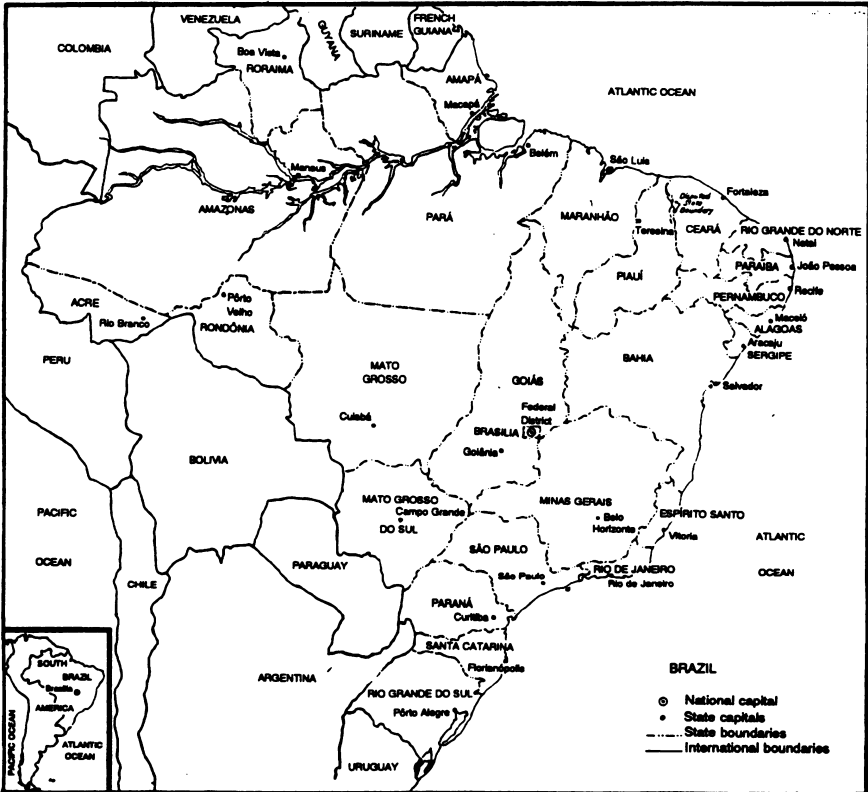
	1983	1984	1985	Production Index (Base: 1979-81 = 100) ⁵	1986	1987
Balance of Payments (millions of SDRs) ¹	20 508	26 390	25 153		125	126
Merchandise exports, f.o.b.	-14 441	-13 596	-12 929	Agriculture	112	126
Merchandise imports, f.o.b.				Food	124	126
Other goods, services and inc. - (credit)	2 288	3 131	3 633	Main Exports (1987 provisional - US\$ million) ²		
- (debit)	-14 816	-16 039	-16 342	Transport equipment		
Private unrequid. transfers	99	157	138	Soyabeans		3 100
Official unrequid. transfers	2	10	15	Coffee		2 400
Balance on current account	-6 360	52	-333	Iron ore		2 170
Direct investment	-1 281	-2 759	-6 496	Machinery		1 830
Portfolio inv., n.i.e.	-270	-265	-231	Shoes		1 634
Other long-term cap., n.i.e.	-86	-1 256	-2 562	External Debt ¹		1 300
Other short-term cap., n.i.e.	-1 076	-3 110	-1 526			
Net errors and omissions	-577	396	-488	External public debt	1970	1986
Total change in reserves	1 087	-6 093	1 502	Outstanding & disbursed (US\$ mil.)	3 421	82 523
Conversion rates:				Debt service ratio: as % of GNP	0.9	3.3
Cruzeiros per SDR	0.617	1.894	6.296	as % of exports	12.5	33.2
				Rate of Exchange (1985 Cruzeiro) ² US\$ 1.00 = Cz 13.654		

Sources:

- 1 World Development Report, World Bank, 1988.
- 2 The Economist Intelligence Unit, Country Report no. 3 and Country Profile 1987-88.
- 3 IMF, International Financial Statistics, 1988.
- 4 IMF, Balance of Payments Statistics, V. 38, 1987.
- 5 FAO, Country Tables, 1988.
- 6 FAO, Country Tables, 1987.
- 7 World Bank, Social Indicators of Development, 1987.

* Most recent estimates.

MAP OF BRAZIL



Source: World Bank Country Study: Brazil – Economic Memorandum (IBRD-17786) - January 1984.

INTRODUCTION

At the request of the Government of Brazil IFAD mounted a Special Programming Mission to Brazil in September 1988. This was the first such exercise in the country, and it was designed to establish a basis for IFAD strategy in developing a coherent lending programme oriented to realistic possibilities for addressing rural poverty. The Mission (1) visited Federal authorities in Brasilia, and agricultural agencies of the governments of the Federal District, Goias, Bahia, Pernambuco, Ceara, Piaui and Maranhao. In addition, government statistical agencies and academic centres of research were visited in Rio de Janeiro and Sao Paulo, as were SUDENE and EMBRAPA dependencies.

The impression that emerged from this extended round of visits was that it is a propitious moment for IFAD to prepare a programme of investment in smallholder sector development in Brazil. The substantially changed macro-economic conditions of the 1980s have given rise to an increased interest in the potential smallholder contribution to national food self-sufficiency, as well as in providing an alternative to urban migration as a response to depressed rural incomes—especially in the Northeast. However, while policy concern has grown, government at the federal and state levels confronts increasing limitations on the resources available to commit to rural development—as well as a dearth of models of development assistance which have been proven to have had a positive impact upon the poorest rural strata.

1) The Mission was composed of Mr. G. Howe (Mission Leader/Officer in Charge), Mr. T. Barbosa (Agricultural Economist), Ms. M. Berger (Rural Credit Specialist), Mr. S. Crescenzi (Economist), Mr. D. Goodman (Development Economist), and Mr. J. Landers (Agronomist).

In this context, IFAD has a valuable role to play: in identifying the types and bases of rural poverty; and in elaborating targeted and sustainable means of addressing them. A positive contribution in these fields promises not only to provide a firm orientation for future IFAD projects, but also to give guidance to much larger funding derived from other sources. Establishing secure grounds for effective assistance, however, involves a response to the challenge of the particular form of organization of the agricultural sector in Brazil. In the most impoverished areas of Brazilian rural society, it can be persuasively argued that there is no long-term agricultural solution to the plight of the large majority of the poor. Consequently any intervention oriented to income enhancement must address not only increasing returns to their current occupations, but also their future insertion into larger scale production processes. Over thirty million Brazilians have traced this path of income improvement (through migration). The Mission found little evidence to suggest that, in the long term, they misunderstood their opportunities. Among those who are currently poor, but who do have the opportunity to establish more viable and productive farming operations, the likely form of activities is not very small-scale agriculture, but a quite capitalized "emergent" type of operation.

Recognizing these two long-term alternatives, and acting upon the consequences, is a challenge to IFAD and the Brazilian government. It defies many characterizations of the rural poor and their possible futures. The Mission is convinced that the persistence of rural poverty in Brazil is only in part an issue of the funding of development assistance, and is much more expressive of an unsatisfied need to direct investments towards real opportunities. It is hoped that the Report of the Special Programming Mission will clarify some of these alternatives on the basis of a sober analysis of the types of rural poverty and the potential of agricultural interventions to alleviate them. In this, the Mission was torn between interventions oriented to where the poor are and where they may be. This is a characteristic dilemma in Brazil, where quite rapid transformations in rural society demand that something be done to alleviate the conditions of the poor on their traditional grounds, but where the same transformations also suggest the need for anticipatory actions oriented to the non-traditional economic "sites" where they seem destined to be (probably sooner than later) reallocated by the labour market. In facing this dilemma, the Mission opted more for the anticipatory option. In part, this represents a conviction that traditional structures are yielding

ground at an accelerating pace. In part, it reflects the fact that very large sections of the Brazilian rural poor never have been traditional in the sense of constituting an independent peasantry rooted in economically viable smallholding units. To strive to preserve this sort of production on a generalized basis would not only be inconsistent with the future —it would be inconsistent with the past.

CHAPTER 1
THE ECONOMIC AND POLITICAL CONTEXT
OF AGRARIAN TRANSFORMATION

INTRODUCTION

Brazilian society has undergone profound changes in the last three decades. It has acquired one of the most advanced and sophisticated industrial sectors among all developing countries, and the level of national wealth has surged forward —without the assistance of forms of economic rent that have played a critical role in many other areas of rapid transformation (e.g., the role of oil revenues in Venezuela and Mexico). Changes in Brazil, in short, reflect real and profound modifications in the structure and process of production involving masses of capital and tens of millions of workers.

This striking achievement is not without its contradictions and tensions. In particular, great wealth has been generated at the same time that poverty persists —albeit it would be wrong to ignore the fact that the general level of wealth has risen with the transformation of production. Just as great wealth exists alongside poverty, so extremely developed sectors of modern production co-exist with extremely undeveloped sectors. These tensions and contradictions are not haphazard: quite varied forms of production are enmeshed in complex inter-relations in which the forms of underdevelopment affect the forms of development, and *vice versa*. This connection between development and underdevelopment is well known in Brazil. To a striking extent, changes in different sectors are tangibly and perceptibly related —although, and this is a critical point, the form of these relations is itself subject to change and can never be understood as a historical "given". What is viable at one "moment" of development may not be in another: a relation which supports accumulation in lead economic sectors in one phase, may become a critical obstacle to further development at a more mature stage of system evolution.

The modern development and underdevelopment of agriculture in Brazil cannot be understood outside of the Great Transformation of the larger society. This "truism" signals a very concrete and decisive historical fact—the emergence of the "larger society". For a long period of Brazilian history the distinction between agriculture and the larger society would have been false: the history of agriculture and the history of Brazil were coterminous. This has changed in the last three decades. It is now possible to speak correctly of a larger society—of the emergence of economic and social structures clearly differentiated from agriculture.

As important as the emergence of these differentiated sectors is the precise form of the relation between them; the non-agricultural sectors have come to set the overall terms of national development and underdevelopment. Agriculture is not merely *within* the larger society, it is moulded by it. The relation between agriculture and industry (among other sectors) in Brazil has been formed, *grosso modo*, by one of the more simple facts of economic development—that the rapid emergence of the industrial sector involves a huge investment of capital, and that capital must come from somewhere. Leaving aside the question of foreign investment, whose significance can be easily overestimated, this capital must come, in large part, from the agricultural sector. With few exceptions, industrialization initially proceeds on the basis of re-allocation of capital from the agricultural sector.

The emergence of a "larger society" in Brazil has thus necessitated a specific relation with agriculture. The larger society draws part of the means of its expansion from the agricultural sector, and to this end forms specific economic relations with it—partly through the mechanism of government economic policy. The relation thus established is, however, extremely complex. While re-allocation of value from the agricultural sector is the means of expansion of non-agricultural sectors at a certain stage of their development, they cannot asphyxiate agriculture. Indeed, as the industrial sector develops it places new demands on agriculture, calling forth new developments necessitating the input of capital within very "dense" industry-agriculture relations. The development of the "larger society" involves domination over agriculture, but also an extremely complicated set of relations of extraction and investment of surplus. This fact gives rise to what, in aggregate, appear to be contradictory relations with the agricultural sector (e.g., the simultaneous expansion of large-scale production and contraction of small-scale activities)—an

"appearance" which dissolves when differentiated treatment of agricultural sub-sector is linked to the differentiated requirements of the industrial sector. In this context it is of the greatest importance that the performance of subordinate systems (agriculture as a whole and its sub-sectors) be understood not purely in terms of endogenous factors, but in terms of, at very least, a mix of forces –in which the interests of the dominant (non-agricultural) systems assume a major formative position.

The Shifting Centre of Social Gravity

In 1940, 31.2% of the population of Brazil lived in urban areas. In 1980, 68.6% of the population lived in urban areas. In 1988 the figure is probably in excess of 75%. Particularly since 1960, the demography of Brazil has involved the preponderance of urban areas and life relative to rural society (see Table 1).

Table 1. Urban Population as Percentage of Total.

	1940	1950	1960	1970	1980
Brazil	31.2	36.2	44.7	55.9	68.6
North	27.7	31.5	37.4	45.1	51.6
Northeast	23.4	26.4	33.9	41.8	40.1
Southeast	39.7	47.5	57.0	72.7	82.8
South	27.7	29.5	37.1	44.3	62.4
Centre-West	21.5	24.4	34.2	48.0	67.8

Source: IBGE.

As might be expected, this dramatic shift of population between rural and urban areas has been associated with an equally dramatic shift in the structure of the economy. Between 1940 and 1980 the proportion of the labour force engaged in agriculture fell from 65.9% to 30.2%; industry rose from 13.9% to 29.1%; services rose from 15.2% to 40.1% (see Table 2). The change in employment distribution broadly accompanied changes in contribution to gross domestic product (GDP). Agriculture's contribution to GDP fell from 24.3% in 1950 to 9.8% in 1985. In the same period industry's contribution rose from 24.1% to 34.4%; that of the service sector rose from 51.6% to 55.8% (see Table 3).

Table 2. Employment by Sector.

	1940	1950	1960	1970	1980
Agriculture	65.9	59.7	54.0	44.8	30.2
Industry	13.9	17.6	17.6	22.0	29.1
Mining	0.8	0.7	0.6	0.6	0.6
Transformative industry	10.9	12.8	13.0	14.5	20.0
Construction	1.8	3.4	3.4	5.9	7.5
Public utilities	0.4	0.7	0.6	1.0	1.0
Commerce	5.4	6.3	7.5	9.3	12.2
Transport and communications	3.2	4.0	4.6	4.2	4.5
Services	6.6	11.9	14.7	18.3	23.4
Not defined	0.7	0.3	1.7	1.5	0.7

Source: IBGE.

Table 3. Sectoral Composition of GDP at Factor Cost.

	1947	1950	1960	1970	1980	1985
Agriculture	20.7	24.3	17.8	11.5	10.0	9.8
Industry	25.2	24.1	32.2	35.9	38.1	34.4
Services	54.1	51.6	50.0	52.6	51.9	55.8
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Source: IBGE.

The economic, social and political centre of gravity of Brazil has thus swung decisively from the rural and the agricultural to the urban and industrial (with its associated service complex). This has been based less upon the absolute decline of the agricultural sector than upon the greater growth of the urban, non-agricultural complex. Between 1968 and 1973 agricultural GDP achieved a respectable growth rate of 3.9% per annum, rising slightly to 4% in 1974-78. The industrial and service sectors, however, recorded considerably higher rates of expansion. Industry grew at an annual rate of no less than 13.1% in 1968-73, and 6.9% in 1974-78. Services grew at an annual rate of 11.4% in the former period, and 7.1% in the latter.

The aggregate income effect of this development was substantial. Between 1968 and 1973 GDP grew at a rate of 11.2% per annum, falling only to 6.7% per annum in 1974-80—in spite of the tremendous challenge posed by rising fuel prices in an industrial economy heavily dependent upon imported hydrocarbons. In per capita terms, GDP rose annually by 8.4% in 1968-73, 4.1% in 1974-78, and 5.5% in 1979-80 (see Table 4). Notwithstanding the tremendous economic reverses of 1981-83, GNP per capita in 1986 was estimated at US\$ 1,810—placing Brazil within the World Bank's upper middle-income category.

Table 4. Variation In Real Product.

	1968-73	1974-78	1979-80	1981	1982	1983	1984	1985	1986
GDP	11.2	6.7	8.1	-3.4	0.9	-2.5	5.7	8.3	8.2
GDP/capita	8.4	4.1	5.5	-5.7	-1.5	-4.9	3.1	5.6	5.6
Agriculture	3.9	4.0	7.2	6.1	-1.9	1.8	3.1	8.8	-7.3
Industry	13.1	6.9	8.0	-9.2	-0.1	-6.6	6.1	9.0	12.1
Services	11.4	7.1	8.8	-0.9	2.2	-0.4	5.9	7.7	8.3

Sources: IBGE/FGV, Contas Nacionais do Brasil; IBGE.

A particularly impressive dimension of industrial growth was not only its "horizontal" development, but also its vertical elaboration, internalizing ever more elements of the overall productive process. Thus, while consumer durables led industrial development between 1968 and 1973 (expanding at the astonishing rate of 24.7% per annum), between 1974 and 1978 expansion was led by the capital and intermediary goods sub-sectors (experiencing 8% and 8.2% per annum growth, respectively)—indicating a significant "maturation" of the productive system. By the 1980s the structure of Brazilian society had changed definitively relative to 30 or even 20 years before. Urban and industrial sectors had not only grown, but had moved into the dominant position within the national production system and social perceptions of economic opportunity. To no small extent, this shift reflected a political commitment to industrial capital accumulation—and willingness to adopt the internal and external measures required to secure it. The decisive "moment" of consolidation of this shift to dynamic urban growth was the change in regime in 1964.

Government Policy and Economic Change

Labour, markets and investment. The move towards a policy favouring industrial development in Brazil can be traced back at least to the mid-1930s under the regime of President Vargas. Industrial expansion in the following two decades was substantial, but by the early 1960s it was clear that the conditions of industrial development were being jeopardized to the extent that elements of the political culture were challenging established forms of accumulation —through defence of wages and employment conditions, and through growing mobilization against the prevailing forms of rural social relations. The advent of a radically different political regime in 1964 changed the social equation fundamentally —establishing, for at least 15 years, an effectively unchallenged policy climate primarily beneficial to the accumulation and expansion of industrial capital in particular, but with profound implications for all sectors.

One of the principal foci of this policy was the compression of the income of labour (or at least the manual component). Although the real income of urban labour did, indeed, rise in this period, considerable social regulation was exercised (through control over workers' organizations and the minimum wage) to ensure that increases remained substantially below increases in productivity (in the industrial sector) —a policy whose implementation was assisted by a major spontaneous re-allocation of labour into the industrial sector. In addition to boosting opportunities for capital formation, this gave rise to a pattern of effective demand beneficial to large-scale industrial expansion, forming, through the relative concentration of income, a pool of demand (among the middle and upper income strata) impelling the spectacular expansion of the consumer durable sub-sector of industry which, as indicated above, grew at a rate of nearly 25% per annum between 1968 and 1973.

The containment of the cost of labour characteristic of the period was, however, but one dimension of government support for industrial expansion. Another element was the continuation of protection for industrial producers through a wide range of tariffs and import controls, effectively reserving wide sectors of the national market for local industrial production —particularly in the consumer good sector, but also increasingly in the area of producer goods.

These economic "framework" interventions on the part of the government were paralleled by a much more active engagement in

investment in both the infrastructure of production and the productive process itself. Particularly after the "oil shock" of 1973, the Brazilian government engaged in a massive investment programme in infrastructure and industry giving substantial impetus to the formation of the producer goods sector—the results of which were clearly evident in the structural relocation of the industrial growth poles in the 1974-78 period. Not only did the government invest heavily in creating the conditions for more rapid and autonomous growth (e.g., mining, intermediary products, power generation and transmission, communications and transport), it also facilitated the entry of private capitals into new productive sectors through the provision of cheap capital and facilitation of joint ventures sometimes including foreign capitals (e.g., in petrochemicals).

The government thus played a critical role in the process of rapid industrial expansion. Through contributing to the containment of wages it helped increase the share of social product available to industrial capital, in addition to which the "social savings" represented by government income were heavily directed towards improving the conditions for industrial profitability (including subsidization of loans and prices charged to consumers of public utilities). On the market side, government consumption itself represented a dynamic growth pole—while consumption of national industrial output by civil society was expanded through major improvements in communications and by reservation of broad markets for national industry through a variety of controls over imports (which also contributed to a de facto income transfer from consumers to some producers).

By far the larger part of Brazil's rapid economic expansion was financed by internal savings. However, especially after 1973, capital formation was buoyed by government recourse to international capital markets, taking advantage of a high level of international liquidity and low real interest rates. Thus, public and publicly guaranteed long-term debt outstanding and disbursed rose from US\$ 14.1 billion in 1975 to US\$ 40.2 billion in 1980—an increase of some 185% in only five years. In the same period private non-guaranteed debt rose from US\$ 9.6 billion to US\$ 16.6 billion—a more modest increase of "only" 73%.

The agricultural contribution. To present the financing of rapid industrial accumulation only in terms of wage containment and recourse to international capital markets would be to ignore one of the major dimensions of development everywhere—inter-sectoral shifts in surplus. The large work force and (in aggregate) considerable mass of capital

involved in agricultural production in Brazil also contributed to the process of industrial development through a broad range of (*de facto*) income transfer mechanisms. (1) These will be elaborated upon in Chapter 2, but of major significance are: maintenance of an over-valued exchange rate; restrictions on the export of agricultural raw materials; import restrictions (including restrictions on imports of agricultural producer goods); and price controls.

The long-term maintenance of an over-valued exchange rate in Brazil reduced the earnings of the export sector (largely agricultural) in local currency, and lowered the price of imports for those sectors with privileged access to foreign exchange and import rights (primarily industrial). Restriction of exports of raw materials both boosted local processing industries (which are an extremely important element of the industrial sector), and depressed agricultural producer prices. Import controls as a whole both raised the price and reduced the quality of non-agricultural goods required by agricultural producers. And price controls on agricultural products (particularly basic food items) had a clearly depressive impact on agricultural producer income (albeit a positive impact on industrial producer income through containment of the food component of the urban wage). On the fronts of containing the cost of labour, generating foreign exchange for use by the urban/industrial sector, and inter-sectoral value transfer a "subordinated" agriculture played a critical role in the expansion and modernization of the industrial sector.

The complex requirements of industrial accumulation, however, necessitated that the relation between industry and agriculture not simply and continuously take the form of a transfer from the latter to the former through "taxation" of an otherwise static agricultural sector (albeit this was arguably the case in some food crops). On the contrary, a number of policies sought to stimulate particular sub-sectors (particularly new export sectors generating foreign exchange and producers of raw material for industry) in the face of a generally less than encouraging environment for agriculture. The form and direction of support offered through these policies was absolutely decisive in shaping the pattern of agricultural change in a fashion by no means beneficial to the mass of (small) agricultural producers. An emphasis upon highly capitalized forms of production in industrial development found its counterpart in the preferred model of agricultural change, (2) where its significance was even greater by virtue of the concentration of a vast mass of petty commodity producers.

Notwithstanding these apparently positive interventions in quite specific areas, it is of great importance to realize that not only was agriculture not at the forefront of government development policy, but that it also suffered from subordination to the requirements of financing industrial accumulation —giving rise to a substantial "hidden" exodus of value from the sector, and to a very visible exodus of rural labour to the cities. While it is conceivable that agricultural policy in future may be more receptive to the interests of small producers, this policy will necessarily develop with reference to a new, but firmly established historical fact —the emergence of urban and industrial interests as the primary points of economic reference. Consequently any viable strategy for smallholder development and/or rural poverty alleviation must address simultaneously the needs of the rural poor and the interests of non-agricultural poles of accumulation.

Crisis in the Development Model

As will be demonstrated in Chapter 2, the dynamics of the period of rapid economic expansion were such as to offer no encouragement to small-scale agriculture, and to posit implicit solutions to rural poverty which did not involve commitment to rural development. In effect, attention to the rural poor was not high on the policy agenda. The abrupt ending of what was popularly portrayed as a period of economic "miracles" at the beginning of the current decade involved a change in some of the basic parameters of Brazilian development, with important implications for the position of the smallholder sector in national economic strategy.

It is arguable that the Brazilian development model pursued throughout the late 1960s and early 1970s was destined to flounder on its own internal contradictions —particularly on the narrowness of the domestic market (relative to the expansion of productive capacity) and the uninspiring performance in basic agricultural wage goods (albeit the problem of the latter never achieved the dimensions encountered in Mexico, for example, at the end of the 1970s and beginning of the 1980s). It is not inconceivable that some of the contradictions could have been overcome by deepening them —by turning to the international market to valorize industrial goods (on the basis of a further contraction of the real income of labour, and a devalorization of inefficient industrial producers fostered by high levels of past protectionism). However, the development model was perhaps definitively unseated on the basis of transformation in the external economic and internal political environments.

External difficulties. The external economic crisis consisted of the interaction of two principal factors: the impossibility of maintaining a high level of dependency upon net inflows of capital to help finance the external deficit and a high level of government spending; and a collapse in Brazil's terms of trade. Both of these factors arose from transformations in the international economy as a whole —albeit the internal sharpness of their consequences was in part shaped by a vigorous attempt to maintain external economic "credibility".

Between 1975 and 1980 total annual service of Brazil's foreign debt rose from US\$ 1.78 billion to US\$ 8.05 billion —reflecting a combination of the growth of gross debt, maturation of debt, and rising interest rates. Over the same period, the country's trade balance recorded consistent deficits (averaging approximately US\$ 2.8 billion in 1978-79). Taken together, the trade deficit (which was aggravated by a rapid deterioration in terms of trade from an index of 100 in 1977 to 55.3 in 1981) and interest payments produced an ascending deficit on the current account —rising from an average of US\$ 6.0 billion per annum in 1974-78, to US\$ 12.8 billion in 1980, to a peak of US\$ 16.3 billion in 1982.

Problems in the trade balance, in addition to increasing debt service payments, rapidly gave rise in the early 1980s to a situation in which new debt expanded only to service the existing debt —without making that net contribution to internal availability of capital that had played an important role in government's ability to direct and accelerate the industrialization process. In 1975 net international transfers of capital (loan disbursements minus total debt service, including principal repayments and interest) were positive to the extent of US\$ 2.75 billion. In 1980 they were negative to the extent of US\$ 1.8 billion. The situation was to deteriorate even further —by 1986 the net **outflow** of capital (as defined above) had reached the level of US\$ 7.4 billion per annum. Already by the end of 1982 the external debt problem had acquired crisis dimensions. Not only had debt service payments spiralled, but the availability of new foreign loans to service the debt was drastically curtailed as part of the general and dramatic international contraction in lending to developing countries. In 1982 new loan disbursements amounted to some US\$ 15.4 billion. In 1983 they were only US\$ 8.3 billion (an inflow that would fall to only US\$ 2.8 billion in 1985). (3)

Under the circumstances of a rising outflow of capital, precipitated in part by narrowing access to new international loans, the only means by which Brazil's external economic relations could be secured from

devastating disruption was a radical departure from the established pattern of substantial trade deficits—which change became a priority objective of government policy. Success in balancing the current account was striking. Between 1980 and 1985 a current account deficit of US\$ 12.8 billion was transformed into a surplus of US\$ 0.28 billion—an achievement necessarily based upon a dramatic improvement in the commercial balance, which passed from a deficit of US\$ 2.8 billion in 1980 to a surplus of US\$ 12.5 billion in 1985. In spite of disadvantageous terms of trade export performance contributed to this turn-around, rising approximately 25% by value in the period. Even more significant, however, was import compression. Between 1980 and 1985, annual imports fell from US\$ 23 billion to US\$ 13.2 billion—a fall of nearly 45%. Between 1980 and 1983 the quantum of all imports fell at an annual rate of 12.7% (followed by a rate of fall of 2.7% in 1983-85). Particularly striking was the annual rate of decline in the quantum of capital goods imports, 22.6%.

In the short-term, at least, external stabilization based on the generation of very large surpluses on the trade account could only be attained on the basis of the most drastic curtailment of domestic demand. The massive fall in the absolute value of imports between 1980 and 1985 (the single largest contributor to the turn-around on the trade account) was, of course, directly linked to reduction in effective demand—not least through a severe domestic credit squeeze affecting both consumption and investment (the national rate of investment fell from an annual average of 23.24% in 1975-80 to 18.01% in 1981-83, and to 16.42% in 1984-86). Less obviously, the fall in internal demand also fuelled exports as, in a countercyclical process, domestic producers sought external outlets for their goods, leading to, *Inter alia*, an increase in the industrialized component of Brazilian exports.

The cost of attaining some (albeit precarious) level of external stability was thus a sharp recession. In 1981, 1982 and 1983 per capita GDP fell by 5.7%, 1.5% and 4.9% respectively—in marked contrast to the annual positive growth rates of over 4% in the 1968-80 period. The nature of Brazil's external economic relations in the 1980s contrasted dramatically with the earlier period: before 1980 flows of capital from abroad had provided a significant external impulse to growth; after 1980 they represented a brake on expansion. Internal growth had to be restricted if external balance was to be preserved. This did not signify paralysis of all sectors, but it did involve containment of aggregate expansion. At least until the most difficult period of external debt management is passed

(in the mid-1990s), equilibrium will require substantial economic constraint—but it should be noted that the viability of even a conservative domestic economic policy will remain dependent upon external factors which are themselves unstable. Brazil's ability to manage the external debt has been crucially dependent upon a fall in international interest rates and buoyancy in international export markets (particularly in the USA). Any deterioration in these factors, which is far from inconceivable (particularly with regard to interest rates), may unleash a further crisis and a further round of dramatic curbs on demand and investment.

Changing relations between labour and capital. The extremely difficult debt situation of Brazil will persist at least until the mid-1990s, and for this fact alone it is difficult to anticipate the resumption of the broad growth, easy credit availability, and relative lack of preoccupation with the issue of the external trade balance characteristic of the 1970s—at least in the short- and medium-term. However, the external debt situation is far from the only factor suggesting that the rate and form of economic development in Brazil will take a quite new path. It is very evident that the rapid rate of capital accumulation in Brazil in the late 1960s and 1970s was in no small measure predicated upon a social situation in which the reward of labour was not allowed to increase at a rate commensurate with the growth of the social product. It is also evident that this particular relation between labour and capital was decisively affected by government policy.

The most rigorous period of active intervention to contain labour costs was between 1964 and (approximately) 1979, (4) the latter date marking the beginning of a process of significant political "opening". However, particularly since the re-establishment of civilian government in 1985, the general framework of relations between labour and capital has changed dramatically. Organized sectors of labour have militated to increase or at least maintain real wage levels, making it extremely difficult for capital to maintain profit margins through a period of recession. In addition to the emergence of direct representatives of labour interests, the ability of labour to pursue this strategy has been significantly helped by a process of reformation of political parties in the phase of "redemocratization". Specifically, the need for political parties to establish blocs of support within the electorate after a long period of atrophy of the normal political process has hindered compression of incomes to maintain capital accumulation—placing severe constraints on pursuit of a consistent pursuit of economic stabilization, with policy assuming "stop-go" characteristics of alternating expansionism and containment.

In effect, the re-entry of labour into the political process has challenged established patterns of capital accumulation—and has also contributed to the strong inflationary pressures that threatened to enter a hyper-inflationary phase in 1988. This is not so much a result of pressures to increase real wages, as to maintain real values of remuneration. In a situation of economic retrenchment and major net transfers of income to external creditors, it is inevitable that overall income suffers. Given that losses cannot be passed on to labour/consumers without resistance, there has emerged in Brazil a competitive process in which both labour and capital seek to increase their nominal incomes to avoid the real loss that, at the collective level, is inevitable. This price "leap-frogging" is a major contributor to inflation, particularly in a situation where the vast mass of financial resources are indexed in value against inflation. (5)

Problems In government finance. The general realignment of relations with international capital (and commodity) markets and the internal working class that has taken place in 1980s has changed the basic conditions of viability of the growth model in the 1970s. A parallel change has occurred in the capacity of one of the most dynamic elements of that model: government expenditure. Government expenditure was a major force behind economic expansion in Brazil, particularly after 1973 when the initial gains arising, in part, from income compression (relative to productivity gains) showed signs of exhaustion as dynamic elements in accumulation. The impulse given by government expenditure comprised at least two major elements: direct investments and subsidies. Much of this impulse derived from deficit financing, fuelled to a great extent by external borrowing—and, in this regard, government added to the conditions of private capital formation.

The dramatic restriction of access to net foreign funding after 1980 substantially reversed the government's objective position: it became (unwillingly) involved in the net export of capital; and its finances made private domestic capital formation and expansion (at least in the productive process) more difficult by virtue of heavy recourse to the internal capital market to finance the public deficit. In the 1980s the government has been in a grave predicament: on the one hand, restricted access to foreign finance has necessitated a serious attempt to reduce the public deficit; on the other hand, a combination of stagnant revenue (in part determined by the general economic slow-down) and rising interest charges (i.e., rising internal debt service) has tended to promote an increase in the deficit. In addition to this general tension there has

been the political difficulty of containing government current expenditures—and the problem of reducing the public enterprise sector deficit without adding further to inflationary pressures or jeopardizing the continued supply of critical industrial services. In effect, the Government has entered an unenviable situation in which expenditures to provide public stimulus to guided development have been reduced—but deficits have not been contained, involving a serious threat to overall capital mobilization and the stability of the entire monetary system.

Initial attempts to balance the public budget met with some success—in the form of a reduction of the public sector deficit from 7.3% of GDP in 1982 to 3.7% of GDP in 1986. Notwithstanding attempts to contain expenditures (not least to reduce the operational deficit of the large public enterprise sector), however, the Public Sector Borrowing Requirement has remained at significant levels (5.46% of GDP in 1987), with an apparent upward trend emerging. A development with disturbing medium-term implications is an increasing deficit in central government operations—whose borrowing requirements rose from 1.8% of GDP in 1985 to 3.35% in 1988 (entirely wiping out the gains from reduction of the state enterprises borrowing requirement, which had been the major contributor to the deficit in 1985).

The net public sector debt has continued to grow alarmingly—threatening the base of future fiscal balance. Between 1984 and 1987 the total public sector debt rose from US\$ 105.5 billion to US\$ 161.8 billion. Of particular interest is the rapid rise of the domestic debt of the federal government and Central Bank, which doubled in the period from US\$ 15.3 billion to US\$ 30.7 billion—roughly parallel to the growth of its external debt. The burden of immediate debt service is also growing extremely rapidly. Between 1986 and 1987, the amount devoted by the Federal Treasury to internal and external debt service rose by some 21% in real terms. A rather ominous development, indicating real difficulties in mobilizing resources to service the deficit, is the fact that in 1986 expansion of the monetary base contributed no less than 17.2% to financing the public debt, sharply up from 3.7% in 1985 (a policy dictated by constraints upon recourse to raising the domestic interest rate).

The difficulties for private fixed capital formation presented by extensive government recourse to the domestic capital market have been compounded by uncertainties arising from inflation. The indications in late 1988 were that a situation of the most severe monetary instability was developing. To the inflationary pressures arising from the struggle

between productive capital and labour to avoid real income losses, and the absolute protection of a mass of finance capital from depreciation of value (through the indexation of the value of financial instruments), has been added a significant government deficit partly financed through monetary expansion. By October 1988, inflation had reached a level of approximately 25% per month. Inflation was contributing towards deterioration in the fiscal situation: public enterprise price increases fell behind the change in the price level, and the effects of the time lag between tax assessment and collection were eroding the real value of government revenue. While inflation has caused major problems for government finances, it has also created an unstable investment crisis—not least by virtue of apprehension about the sustainability of the current situation, and measures that may have to be taken to correct it.

Within a generally confused situation, a number of basic points can be made about the emerging relation between government finance and economic development. The large and growing government debt burden suggests that government will not be an agent of net capital transfer to the economy in the foreseeable future. Rather than subsidizing the price of private capital, it will be engaged in a process of competition for capital (particularly internal capital) to finance its debt. Moreover, it is likely that direct government investments will also be subject to restraint—not least because of evident difficulties in containing socially sensitive current expenditures (not least wages and salaries).

It is evident that government's internal and external financial relations will add to the constriction of capital availability suggested by the rapid evolution of the labour capital relation and the general tightness of access to new flows of international capital. This almost certainly will lower the rate of growth (which is suggested, anyway, by the difficulties of establishing compatibility with the external balance). However, it is likely that there will be a change in the form as well as the amount of growth. A policy of cheap capital in Brazil led to the overcapitalization of production and the rapid marginalization of petty commodity production—putting a very modern face on much of the Brazilian economy, but at the expense of the relative misery of those without access to subsidies. It is unlikely that this pattern can be sustained easily—with important implications for the agricultural sector in particular.

Changes in the Structure of Civil Society

The changed relation between capital and labour, and between internal capital formation and international capital represent structural changes in the environment of Brazilian economic development. To these basic challenges must be added issues of a more or less temporary nature arising from the process of political transition. Uncertainties about the availability of resources and the viability of some of the capital-intensive routes of development explored when capital was both abundant and cheap are rendered even more intense (from the viewpoint of effective policy and intervention) by a process of constitutional change. The Constitution of 1988 makes provision for a reallocation of certain government revenues from the Federal to the State level. While the effects of this are not easily predictable, it would appear that this will trigger a response by the Federal government in the form of a reduction of other transfers to the State level—not least reduction of the Federal government's contribution to a wide range of State-level development activities. The net result is unclear, especially as the level of Federal "drawback" is not fixed by the constitution, but will be established within the process of determining Annual Budgets. However, it is almost certain that the change will engender even further uncertainty in finance and administration—as bases for finance are shifted, and existing activities find themselves seeking new sources of funding. In the short term, at least, negative impacts can be expected in the poorer states—particularly in the Northeast. Financial difficulties in these states will also become more acute as a result of the federal government's insistence that substantial payment be made against external debt outstanding—the precise impact being determined by the level of each state's external obligations.

Finally, some reference must be made to the qualitative effects of political change upon government expenditures. Objectively, there can be little doubt that expenditure patterns (particularly the delivery of tremendous volumes of resources into relatively few hands) in the period of rapid aggregate expansion reflected the nature of the social and economic bloc from which support of the military government sprang. Notwithstanding this, the relative stability of the regime, and the relative homogeneity of the interests which it represented, gave a certain medium-term coherence to major economic programmes and activities. Brazil is evidently now in the midst of a transition—involving the emergence of new political formations seeking to mobilize and consolidate support among the electorate. This inevitably involves continuing changes in resource allocation to reflect the concerns of social groups with new political

significance. Given that a new social and political consensus must be **constructed** out of a wide range of often competing elements, short-term and visible allocations will be frequently preferred over long-term investments with few immediate advantages to beneficiaries —moreover there can be little security in the continuity of policies and programmes. While the need to mobilize the electorate will involve activities making explicit appeal to those elements marginalized under the previous regime (including the rural poor), clear differentiation must be made between their immediate appeal and their significance as long-term, fully-funded commitments to development.

Poverty and the Challenge to Policy

While circumstances dictate that the established patterns of generation of **wealth** (and the underlying set of inter-sectoral relations) are called into question, it is also evident that political and economic changes in Brazil will probably give rise to much greater explicit policy concern with **poverty**. On the political front, the need for political mobilization of the electorate will necessitate that the interests of the large constituency of the poor be addressed —particularly given the erosion of traditional forms of social control with the transformation of the social structure itself. On the economic level, the faltering of the economy, and limited prospects for the resumption of rapid growth, indicate that poverty can no longer be benignly neglected as a phenomenon that requires no special attention —that would be, as it were, automatically eradicated in the general growth process.

The perception among many Brazilian politicians and economists that addressing the poverty situation is a "social debt" that must be paid expresses a general understanding that the new political order will be obliged to pay bills accumulated in the rapid growth period (and, indeed, before), policy which put a premium upon rewards to large-scale capital rather than to labour and the mass of petty capitals. This accumulated "debt" is a very large one. Although per capita gross national product (GNP) grew vigorously in the course of the so-called "miracle" years, poverty grew, too. Here one must differentiate between absolute and relative poverty: on the one hand, between 1960 and 1980 **absolute** poverty declined in Brazil (although it remained a major problem in some areas and sectors); on the other hand, **relative** poverty grew apace. The fundamental social fact here is that income disparities grew in a "linked" fashion. The issue is not only that some grew rich and others did not, but

that those who did not grow rich were poor in quite different circumstances—i.e., they were poor not because of a simple isolation from development, but within an articulated structure in which others grew rapidly richer. In short, there was a passage from socially disarticulated relative poverty to a socially articulated form. The passage to a poverty **within** a framework which is clearly linked to the national growth process and the State's economic stewardship increases the likelihood that aspirations of the poor themselves will be expressed in terms of demands upon the larger system—particularly upon the State. That is, the perception of a social debt, on the one hand, is increasingly likely to be paralleled, on the other, by a claim on social resources. In a mute way, this has already happened; migration of large groups of the rural population to the cities has brought the poverty question to the very doorstep of government, where it cannot be ignored.

The process of democratization will inevitably hasten the articulation of these social claims. With regard to development policy, this will add an element that has historically carried relatively little weight. To the extent that there has emerged a clear perception of an appropriate response to poverty, it has taken two connected forms: social welfarism—expressing the view that the poor are located in marginal production systems which are not viable within a modernizing economy; and structural *laissez faire*—a vision in which the problem of poverty would disappear with general economic growth and the integration of the marginal population into the regular labour force of the modern sector (a real process in the growth period). The continuation of such approaches has become extremely problematic. On the one hand, the general shortage of resources suggests that a policy of simple income transfer without regard to economic returns will not be easily sustainable. On the other, the immediate growth prospects for the modern sector are not such as to suggest the easy integration of the marginal poor. In short, just as the dominant growth model is no longer viable, so the approach to poverty characteristic of that model cannot be sustained.

It seems unavoidable that the constraints on simple income transfers and the limited absorptive capacity of the modern sector will necessitate, in response to the demands of the poor, greater attention to investments to raise production (and income) **within the systems in which they are inserted**—a strategy which was totally absent in the period of vigorous growth, when almost the only form of productive development countenanced was concentrated and capitalized, and the only form of economic integration of the poor envisaged was that of wage labour. (6)

There is a certain confluence of forces here: on the one hand, the possibility of pursuing a growth policy displacing petty production is decreasingly viable; on the other, the social expression of the needs of the poor involves demands that must be addressed within the framework of an in situ response. Given the relative concentration of the poor in rural areas and agriculture this will involve reflection upon the appropriate form of intervention to combat rural poverty—as well, perhaps, as upon the general agricultural policy which, in large measure, neglected the problem in the past.

A State of Transition

There can be little doubt that the period of rapid, capital-intensive development in Brazil has come to an end with the disappearance of the external economic and internal social conditions that made it possible. The current lack of a clear direction in economic policy indicates, at very least, awareness that past formulae are no longer appropriate. The plethora of suggestions expresses both real uncertainty about what will constitute a viable course and the emergence of many hitherto unarticulated interests in the path of national development. It is unavoidable that changes in the possible dominant paths of development will also involve changes in the relations between agriculture and the leading economic sectors—and this will have important implications for the opportunities and obstacles facing the rural poor and agricultural petty commodity production.

It will be shown in Chapter 2 that the crisis of the general development model has generated a crisis in the dominant form of agricultural expansion—and brings to the fore contradictions already latent within it. The rapid expansion of large scale, capitalized agriculture is no longer quite as obviously the only logical path of agricultural development—now that producers may have to pay the real cost of capital. On the other hand, it may no longer be possible to maintain the disadvantages under which the mass of agricultural petty commodity producers laboured. Particularly in the basic foodstuffs sector, low prices and low capitalization kept food prices low—but also limited supply to levels intermittently precipitating crises of domestic availability. In the period of easy access to foreign exchange, this basic tension in the model of primary accumulation was evaded by supplementary imports of foods to “top up” domestic supply—the expansion of which was far below the rates registered in non-food items. Pressures to reduce imports will necessitate

review of the food crop sector policy, within which serious attention will have to be paid to capitalization of the sector to expand productivity (and the marketable surplus) beyond levels allowed by a policy which essentially exploited the possibilities of extraction (and transfer) of surplus under traditional, non-capitalized techniques. The way in which this capitalization proceeds will represent either the beginning of a path of expansion for large groups of the rural poor—or the end of petty capitalist production on a large (in aggregate) scale. It is possible that the greater voice of the rural poor may be creating the conditions for a response to the agricultural question that is not fundamentally unfavourable to small scale production—albeit one that will not be indifferent to the issue of effective relative competitiveness.

The role of the government in the formation of the Brazilian economy has been decisive. The growth model promoted by government has affected all sectors—has, indeed, shaped all sectors. The growth model is no longer viable. Objectively, there is a need for a new set of development policies to match changed economic, social and political circumstances. It is likely that a more realistic economic policy would involve significant changes in favour of the poor and the small-scale producer—for both economic and social reasons. Chapters 2 and 3 will address, respectively, these economic and social reasons—demonstrating the tensions accumulated in the previous growth model and their reduced "containability". Chapter 4 will outline the basic production systems of the poor, particularly in the Northeast, and Chapter 5 will address past attempts to provide support to smallholders. Chapters 6 and 7 will address the elaboration of an agricultural and rural strategy that would begin to offer a base for a more constructive social and economic integration of the mass of the poor—and indicate how IFAD should operate in Brazil to facilitate the emergence of new models of assistance to the petty commodity sector, models that within a narrow project frame would make a small impression on the problem, but which, in the context of a process of general policy reformulation could contribute significantly to a growth policy which makes compatible the demands of small scale agricultural production and the interests of the dominant economic sectors—on the basis of the proposition that industrial accumulation itself, at a certain point of its maturation, must begin to develop those sectors which at a previous point it either exploited in an unequal structure of exchange or left to languish in a state of neglect.

NOTES CHAPTER 1.

- 1) It has been calculated that price related transfers to the agricultural sector were negative in every year between 1973 and 1983, reaching a peak of over 50% of agricultural GDP (excluding credit) in 1974 —admittedly, an exceptional year.
 - 2) The influence of the dominant development "model" over agricultural sector policy is evident. However, it should also be noted that the prevailing organization of production among Brazil's competitors necessitated that much of the agricultural export thrust be based on large-scale, highly capitalized production.
 - 3) Such was the weight of debt service that the outstanding debt increased in spite of the major negative flow of capital. Thus the total long-term outstanding and disbursed increased from US\$ 56.8 billion in 1980 to US\$ 97.2 billion in 1986. Notwithstanding the fact that Brazil was paying considerably more to its creditors than it was receiving, it was falling deeper into debt at increasing rates of interest. Thus in 1975 the average terms of new commitments from all creditors was 8.6% —in 1981 it was 15.2%. Only by 1986 had interest rates fallen to nominal levels comparable to the mid-1970s, but even these were higher in real terms.
 - 4) Intervention was most pronounced in the second half of the 1960s. Wages did rise in the 1970s, albeit in a more or less controlled fashion.
 - 5) These inflationary trends have given a particular complexion to changes in wage rates: significant nominal wage gains have been rapidly eroded by inflation, signifying that labour may be worse off than in the period of controlled bargaining.
 - 6) It should be noted that even in the process of dynamic expansion, large groups of the "traditional" poor were "integrated" into the urban sector outside of the framework of wage labour (hence the rapid growth of services and the informal sector). This integration did not abolish poverty among those involved, albeit the urban poor are typically less poor than the rural poor.
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CHAPTER 2
THE POSITION OF THE SMALL-SCALE
PRODUCER IN THE AGRICULTURAL
SECTOR

INTRODUCTION

The mass of poverty in Brazil is still located in rural areas, and its existence and evolution is intimately connected with the structure of agricultural production. The model of accumulation dominant prior to the economic crisis of the 1980s has a profound effect upon the contemporary form of rural poverty –and the exhaustion of that model raises important new challenges and opportunities in agricultural development. Nonetheless, economic policy (at least in the narrow sense) has been far from the only factor shaping rural poverty, which is deeply rooted in a system of rural property mediating the positive and negative impacts of sectoral policy upon the agricultural population.

Elements of the Rural History of Brazil

In spite of the profound change in relations between agricultural and non-agricultural sectors in modern Brazil, there has been fundamental continuity in the dominant form of organization of agriculture itself. From an early point in its colonial history, Brazilian agriculture was organized on the basis of concentrated accumulation of wealth –the possibility of which was predicated upon extreme concentration of productive property of all kinds. Certainly after the abolition of slavery, concentration of property centered upon concentration of landownership, albeit the fact of concentrated ownership of land had its roots in the earliest period of colonial occupation.

For an extremely long period of Brazilian history the dynamic economic factor was the production of crops commanding relatively high prices on international markets. The form of this production was almost exclusively large scale. Production has followed cycles of expansion of export crops in different areas within a "plantation" framework, a pattern fostered by the political authorities who, with few exceptions until modern

times, granted land for the exploitation of external market opportunities only to those with significant private resources and social influence. The result was a pattern of periodic rapid expansions of large scale landholding in new areas of agricultural production. Small-scale production has thus never been a major dynamic element of Brazilian agriculture (with the partial and relatively recent exception of the South, mainly Santa Catarina).

The contemporary effects of this historical pattern are profound: in most areas of historic occupation of land, the population confronts a quite extreme concentration of rural property. While the cyclical pattern of plantation crop development typically involved eventual decay of established systems, the pattern of landholding established in the period of vigorous expansion remained —albeit frequently attenuated by peasant access to land on a tenancy basis or through a partial decomposition of large estates in a process of formation of small-scale properties. In 1940 the 34% of farms with less than 10 ha occupied (but did not necessarily own) 1.46% of the agricultural area. The 14% of farms with more than 100 ha occupied 82% of the agricultural area. In 1980 the percentage of farms under 10 ha had risen to 50% of the total, occupying 2.47% of the area; farms of over 100 ha had fallen to 10.56% of the total, occupying 80% of the land (see Table 5).

Table 5. Percentage of Area Held by Farms In Different Size Classes.

		Less than 10 ha	10 - 100 ha	More than 100 ha
1940	% Farms	34.37	51.22	14.42
	% Area	1.46	16.75	81.79
1950	% Farms	34.43	50.98	14.59
	% Area	1.30	15.31	83.38
1960	% Farms	44.79	44.68	10.53
	% Area	2.38	19.04	78.58
1970	% Farms	51.17	39.28	9.54
	% Area	3.09	20.42	76.49
1980	% Farms	50.35	39.09	10.56
	% Area	2.47	17.68	79.86

Source: IBGE.

This rather extreme concentration of property in land has not always been associated with intensive use. Land ownership in the traditional system had two objectives: to establish the direct basis in land for large-scale production; and to establish the conditions for a supply of labour to the large-scale productive process. Particularly with the emergence of dependence upon free labour in the agricultural sector, the mobilization of labour was dependent in no small measure upon denial of access to land, impelling the labourer to transfer control over his labour to the great landowners. Hence the apparent paradox of extremely limited access to land on the part of the rural labour force —alongside large areas of unused land in the hands of the landowning class.

The existence of a large mass of very small producers in the rural areas of Brazil in no way contradicts the social hegemony of the interests of large-scale producers. Quite the contrary, for a long period of history large-scale production required the complementary existence of small-scale operations. Payment for labour on large-scale units was contained by granting rights to use areas of land within the larger holding (to the so-called "internal peasantry") —areas that could be the basis of small-scale production for household consumption (located in less privileged production areas), but which in no way detracted from the availability of labour (for employment on large holdings) when required. Small-scale production, then, did not exist independently from large-scale production, but expressed a basic interest of the latter —as long as labour remained the basic input in agricultural production.

The structure described above has been present to a greater or lesser extent in all long-settled areas of Brazil. Nonetheless, it has been particularly pronounced in the Northeast, where the patterns of colonial settlement have remained remarkably intact —and where, as a result, there has developed in the normal course of demographic expansion an enormous mass of small-scale producers with insecure access to marginal or sub-marginal agricultural holdings (see Chapter 3). The existence of this group in a complementary relation to the interests of large landholders involves significant local social interests in their preservation as unviable individual producers. That is, there has been a certain interest on the part of the socially predominant groups in preserving the underdevelopment of the peasantry in order to maintain its subordination to their accumulation interests. Thus in the Northeast there has been broad support for relief activities in the midst of serious droughts (activities which allow labour to remain in the affected areas, thereby securing future labour supply). However, there has been very little progress made on

land reform, for example, which offers a more definitive response to securing smallholder income, but which also threatens established bases of accumulation. The form of "assistance" has been very much tailored to the maintenance of the situation that gave rise to the need for assistance in the first instance.

Although the sector of small-scale production (based on a complex mix of tenancy and independent tenure) has played a subordinate role to large-scale production within the agricultural sector, it has also played a significant positive role in the direct production of commodities other than labour. This has been the case in basic food crops, where the aggregate output of a vast mass of small producers has been very considerable. This has been, of course, the logical outcome of a situation in which a large part of the rural population operated small holdings for subsistence purposes. However, small-scale production also contributed heavily to the availability of food crops in the market —on the basis of sale of small surpluses of production otherwise heavily oriented to satisfaction of domestic consumption requirements (with large-scale producers being oriented to exploitation of export cash crops). Crops in which smallholders have had a strong presence are beans, maize, cassava and rice. In general, however, individual surpluses have been small and variable, with the important exceptions of areas in the South (Santa Catarina, Parana, Rio Grande do Sul and Espirito Santo), where larger holdings (due to an exceptional pattern of historic settlement) and superior ecological conditions allowed for the emergence of a quasi-farmer type of smallholder class.

Modern Transformations in the Agrarian Structure

From the early years of the colony to the 1930s, agriculture (principally large-scale agriculture) was the economic centre of gravity of the country, and economic and social policy was directed towards its promotion as the centre of national accumulation: hence lack of assistance for the acquisition of public lands by small-scale producers (certainly relative to the facilities offered to large-scale operators), promotion of immigration to swell the disposable rural labour force, and major publicly guaranteed investments in infrastructure serving export crops. By the late 1950s and 1960s, however, the relation between agricultural and non-agricultural sectors had changed. Until the mid-1930s, it was evident that although urban development was substantial, it still revolved around the requirements of the agricultural sector, and its fundamental interests could

not be opposed to those of agriculture. From mid-century onwards, it became evident that urban interests were reversing the relationship—subsuming agricultural development under their own requirements.

This subsumption, which was clearly articulated through government economic policy, took a number of forms. The most elementary was a transfer of income from the agricultural sector to facilitate industrial capital formation. The second was stimulation of particular agricultural sub-sectors to enhance their ability to serve industrial accumulation. In this process, the urban/industrial sector reformed not only its relation to agriculture but, as importantly, also reformed relations within agriculture itself.

Towards Associated and Uneven Development

The early stage (1950s and early 1960s) of the relation of simple transfer of value was marked by a rather homogeneous policy approach. The export agricultural sector (accounting for the majority of national exports), led by coffee, was expected to provide the foreign exchange necessary for urban-industrial growth—and to transfer part of the value generated within its operation to the industrial sector. The primary mechanisms for this were overvaluation of the exchange rate (and direct "exchange confiscation"); foreign exchange allocation schemes; and non-agricultural import controls—all of which were clearly in favour of the industrial sector and, *ipso facto*, represented means of "taxing" export agriculture. The food crop sector was called upon to contain the urban wage bill by provision of food to the domestic market at controlled, and low, prices.

This first stage of the revised industry-agriculture relationship might be termed one of **undifferentiated primary accumulation**, i.e., a transfer of value out of the agricultural sector as a whole, articulated through the marketing and pricing systems. There was little attempt to reform the agricultural production system, but merely a move to capture part of the value generated within the existing system. As such, it could not be termed an attempt to induce intra-sectoral transformations, but simply an intervention to modify the intersectoral distribution of the social product in favour of industry—through the forced saving of the agricultural sector and induced voluntary re-allocations of labour and capital out of agriculture.

Modernization and expansion of export sub-sectors. In purely economic terms, the pattern of accumulation described above had clear limits. While the untransformed agricultural sector could provide capital in various forms for the development of the industrial sector, the absolute level of income transfer was necessarily limited by the level of productivity of the dominated sector. To put this in structural terms, an imbalance in the rate of expansion of linked sectors must, at a certain point, create a situation in which the (lower) rate of growth of the dominated sector comes to establish limits on the expansion of the dominant sector.

In Brazil, this imbalance did not appear in an undifferentiated way. In particular, the extraordinarily rapid growth of capital at the disposal of the industrial sector in Brazil (dating from the late 1960s, under social conditions described in Chapter 1) gave rise to an accelerating demand for capital and intermediary goods (the material means of expansion), the satisfaction of which required access to foreign exchange. In this context, the critical point of macro-economic structural tension was between the growth of industry and the expansion of the agricultural export sector (which was the principal source of foreign exchange in the period). While demand for agricultural wage goods also grew as a result of the expansion of the urban population (partly in response to industrial development), the imbalance between rewards to labour and rewards to capital (in favour of the latter) in the period necessarily gave rise to a disproportionate increase in the demand for export expansion (to serve capital) as opposed to food crop production (to serve labour). This internal tension required decisive action to improve the environment for agricultural export production if the rate of material industrial accumulation was to be maintained. The demand for improvement in the food crop sector was smaller because of the compression of rewards to labour, and because the non-capitalized nature of the mass of food crop producers made output levels **relatively** insensitive to artificially depressed market conditions (i.e., poor prices).

The early 1970s, therefore, marked a major shift in the relation between industry and **parts** of the agricultural sector which was to have vital repercussions **throughout** the agricultural system. The objective of economic policy was to create new sectors of **agricultural** production whose primary objective was the increase of the capacity to import industrial means of expansion. Developed behind a wall of high tariffs and import controls, the industrial sector could not develop (at least immediately) its own direct (bilateral) relations with external producers of capital and intermediary goods (certainly not at the rate required to service

its own expansion). It had to create a **triangular** relation based upon the relative efficiency of export agriculture and control over that sector's own relations with external industry (such as to force a value shift to domestic industry).

Table 6. Agricultural and Total Exports, 1976-85 (In US\$ Billions).

Year	Total	Agricultural	% Agricultural
1976	10.10	6.60	65.35
1977	12.10	8.10	66.94
1978	12.70	7.30	57.48
1979	15.20	8.00	52.63
1980	20.10	10.40	51.74
1981	23.30	10.70	45.92
1982	20.20	9.00	44.55
1983	21.90	10.00	45.66
1984	27.00	11.70	43.33
1985	25.60	10.50	41.02

Source: IBGE, and C.V. Guimaraes, "Comercio Agrícola, Saldo Comercial e Dívida Externa", in *Dados Conjunturais da Agropecuária*, No. 142, 1987.

In addition to its role in generation of foreign exchange (see Table 6), however, the revitalized export sector was obliged to simultaneously discharge other functions (to a greater or lesser extent). Through its own material development in the production process it was to become a (captive) internal market for domestic producers of means of production, who because of the relative underdevelopment of the national petrochemical structure and the lack of national feedstock (i.e., inputs into petrochemical processes) were concentrated in the sub-sector of mechanical means of production (tractors, etc.). In short, not only was a more dynamic agriculture to help finance industrial development, it was also to constitute part of its internal market. Moreover, agriculture was also assigned the role of providing the raw materials for the development of the agro-processing branches of industry, the expansion of which increasingly required standardized agricultural output on a large and regular scale—hence the reference in Chapter 1 to the evolution of extremely "dense" industry-agriculture relations that could no longer be contained within a simple model of "taxation" of one sector by another.

The scene was thus set in the early 1970s for a dramatic shift in the industry-agriculture relation impelled by the development of industry itself. The means by which this was implemented were extremely important for relations within the agricultural sector. The context of the change was a general economic policy that was unambiguously oriented towards development based on large-scale and concentrated capitalist production. In the 1970s the dominant development model was carried over from industry into agriculture to introduce, perhaps for the first time, a form of agricultural growth in which command of capital displaced traditional patterns of command over labour in the organization of the productive process. The transformation was based, in no small measure, upon a vast infusion of resources from outside the sector.

Examined from the perspective of production statistics, the period witnessed a vast and rapid expansion of export crops (particularly soy and oranges), but a stagnation in basic food crop production (see Table 7) —corresponding to the felt requirements of the accumulation process as outlined above. In a limited sense, this reflected the "typical" historical path of agricultural development —of export-led "booms". However, it also contained within it changes not only in the extent of large scale production, but also in its production relations.

Particularly in the South of the country, the insecure tenure of large sections of the small-scale producer population provided the conditions for their expulsion (qua independent producers) as socially more important elements sought to exploit opportunities for profit from large scale production for export, taking advantage of easy access to credit at negative real interest rates. In itself, this is hardly a unique phenomenon in Brazilian agricultural history. What is more striking is that a large proportion of the displaced "peasantry" was not reintegrated back into the large-scale sector labour force as *minifundistas* "exporting" their labour.

(1)

As indicated above, it has been a characteristic of previous export cycles in Brazil that the frontier of the peasantry be pushed back, but also that very small-scale production itself would persist as a contributor to the reproduction of the labour required by the large scale units. In the 1970s it appeared that this pattern was being broken: that the peasant frontier was being virtually abolished in some areas —as large scale production expelled tenants and reduced demand for the labour surplus of more independent small scale producers. Indeed, in the South and Centre-South the *latifundium-minifundium* relation appeared to be in the process

Table 7. Brazil — Annual Rate of Growth of Selected Crops, 1973/80 and 1973/85.

	Brazil		Centre-South		Northeast	
	1973/80	1973/85	1973/80	1973/85	1973/80	1973/85
Domestic Market						
Rice	3	1.6	2.4	1.7	6.3	0.7
Irrigated (South)			5	5.7		
Non-irrigated (Centre)			1.2	-0.6		
Potatoes	5.3	2.4				
Beans	-1.1	0.8	0.9	2.1	-4.3	-2.3
Manioc	-1.1	-1.4	-7.6	-4.9	2.9	-0.4
Maize	2.5	3.2	3.1	3.7	-6.1	-5.2
External Market						
Cotton	-3.2	1.5	-0.7	3.8	-8.8	-4.5
Cocoa	8.4	6.1				
Coffee	1.6	5				
Orange	9.2	8.4				
Soy	10.8	7.7				
South			9.2	4.5		
Centre			27.7	26.8		
Administered Crops						
Sugarcane	7.6	8.8				
Wheat	3.5	1.1				

Source: Gervasio Castro de Rezende, *Crise Externa e Agricultura: Brasil, Anos 80*, Rio de Janeiro, 1988.

of being definitively replaced by a capitalist farmer-rural proletariat relation, with the latter (providing labour on a casual and temporary basis) based more in the towns and cities than the country proper (a process affected by legislation protecting the rights of permanent rural workers and the resident labour force of large operators). The key to this transformation was the capitalization of large scale production (essentially the substitution of labour by mechanical means (2)). While this process may seem inevitable in the case of large scale grains production, it is almost certainly the case that its rate and extent in Brazil was conditioned by the abundant subsidized credit offered by the government to sectors offering possibilities for rapid export expansion. The industrial sector (through government

policy) was recasting agriculture not only according to its own needs, but also in its own image. Three dimensions of agricultural credit in the 1970s are particularly striking: its rapid expansion and huge absolute mass; its high level of subsidization; and the high level of concentration of the resource flow. In 1975 agricultural credit reached the extraordinary level of 102% of sectoral GDP, while interest rates remained negative throughout the decade (see Table 8). The lion's share of this income transfer was captured by large-scale operators. In effect, government intervention in the 1970s changed much of the face of Brazilian agriculture on the basis of a massive investment of resources. It did not, however, transform agriculture uniformly.

Table 8. Ratio Between Rural Loans and Agricultural Output and Real Rates of Interest, 1969-82.

Year	Average Real Interest Rate(% per annum)	Credit as % of Agricultural Output
1969	-5.9	45
1970	-4.3	54
1971	-4.5	54
1972	-2.7	61
1973	-0.9	69
1974	-11.3	74
1975	-10.5	102
1976	-19.0	95
1977	-19.0	70
1978	-16.4	73
1979	-24.1	85
1980	-34.6	70
1981	-37.3	71
1982	-30.5	80

Source: See Tables 2 and 12, Appendix 3.

In addition to the general support to the rapid expansion of capitalized agriculture provided by the enormous volume of agricultural credit, certain commodity-specific schemes also added momentum to the agricultural transformation. Of particular importance was support to the expansion of sugar and wheat production. While soy and orange production responded in part to positive world market prices, sugar production in Brazil has

expanded along a path counter to that suggested by international demand. Between 1973 and 1985 sugarcane production in Brazil expanded at a rate of 8.8% per annum—the fastest long-term rate of any crop. As in the case of the other rapidly expanding crops, expansion involved transformation. Capitalization of production brought to the Northeast (but also to the Centre-South) an apparently decisive change in labour relations involving expulsion of resident labourers from plantations and erosion of the small farmer periphery (see Chapter 3)—a relatively novel form of crop development in the region. It is important to note that the promotion of sugarcane (through subsidized prices and credit) has been not as a food crop, but as an import-substituting industrial raw material (i.e., as a source of fuel). The rise in oil prices in the beginning of the 1970s was seen as a major threat to the sustainability of industrial expansion by virtue of its impact on the foreign exchange cost of the process, precipitating a major investment effort to raise fuel self-sufficiency through alcohol production. What is notable about this intervention was that it was not related to sugar as a food crop, and it was immediately linked to Brazilian industrial requirements. The results of the capitalization of production, however, appear to be similar to those in other sectors—erosion of smallholder production and the casualization of labour.

The case of support for wheat is somewhat anomalous, being the only major intervention directed towards support of what is exclusively a domestic food crop. In addition to deriving benefits from cheap credit, wheat producers enjoyed subsidized government purchase prices deliberately designed to stimulate production. It is clear that a number of interests were at stake in this case. Perhaps foremost among them was import substitution. The emergence of new urban consumption patterns, linked to strong agro-processing interests, had led to increasing imports of wheat and wheat products (peaking at US\$ 890 million in 1980)—to which there corresponded no strong sector of local production. Confronted again with the possibility of loss of foreign exchange to activities not immediately linked to the industrialization effort, government policy was directed towards expansion of domestic production capabilities which, again, involved the emergence of capitalized production. (3)

It is thus evident that faced with a high level of demand for foreign exchange to allow the expansion of industrial capital and its associated infrastructure, government turned from simply taxing the agricultural sector towards stimulating export development, as well as to development of new import substituting sectors in areas where "traditional" capacity was weak. The mechanism of policy was principally cheap and abundant capital, with

additional price incentives in the case of sugar and wheat. The result was a tremendous expansion of capitalized large scale production, first in the South and Centre-South, and then in the vast new frontier areas of the Centre-West and North. Between 1970 and 1985 the area under soy cultivation increased by over 8.8 million hectares; the area under sugar expanded by some 2 million hectares (see Table 9). The outcome in the South and Centre-South was a clear and rapid transformation of the rural order: decline in small-scale production and the expulsion of the peasantry —partly to the cities, and partly to the frontier which, in turn, was subsumed under the same logic of large-scale expansion. This process has been extremely rapid. The movement of the population of small-scale producers to northern Goiás, Piauí and Maranhão, for example, was very soon followed by the expansion of large-scale production (particularly of cattle) in the same areas, giving rise to mass expulsions and acute social conflict.

Table 9. Area Under Selected Major Crops (ha).

	1970	1975	1980	1985
Cotton	4 298 573	3 876 389	3 699 495	3 590 180
Rice	4 979 165	5 306 270	6 243 138	4 754 692
Beans	3 484 778	4 145 916	4 643 409	5 315 890
Orange	202 037	403 192	575 249	663 063
Cassava	2 024 557	2 041 416	2 015 857	1 868 080
Soy	1 318 809	5 824 492	8 774 023	10 153 405
Wheat	1 859 249	2 931 508	3 122 107	2 676 725
Sugar	1 725 121	1 969 227	2 607 628	3 912 042

Source: IBGE.

In the "traditional" Northeast, the situation was somewhat different. In the sugar-producing areas of the Littoral, the agrarian transformation was similar to that encouraged in the Centre-South. However, the lack of a fully developed technology for production in the very extensive semi-arid areas inhibited the expansion of new export crops —placing limits on the expansion of mechanized production. At least in this respect, the general transformation of agriculture has been slow, except in areas of irrigation development which, even in zones of massive public investment, have been dominated by the formation of relatively large-scale capitalized operations. Notwithstanding this, the large landowners of the area did

exploit the access to cheap capital offered under general government agricultural sector policy, largely for the purchase of cattle and the expansion of extensive cattle production. Although in a manner different from that characteristic of the mechanized crop production systems of the South and Centre-West, this led to an equal displacement of small producers and constriction of demand for labour. In fact, this phenomenon was not contained to the Northeast. In all areas, where capitalized production could not proceed on wheels (i.e., on a mechanized basis), it proceeded on the hoof (i.e., in the form of cattle). And the extent of both was clearly conditioned by both cheap capital and a land tenure system (in unoccupied and occupied areas) providing no definitive obstacle to the formation or reformation of large agricultural operating units.

Stagnation in the traditional food crop sector. Data on crop production between 1973 and 1985 in Brazil display a striking pattern of differentiation among crops, indicating that the advance of agriculture in the period was very far from uniform. On the one hand, new export crops and sugar (a new industrial input) performed brilliantly: in the 1973-85 period soy production rose at an annual rate of 7.7% (assisted by extremely rapid expansion in the Centre-West); orange production rose by 7.7% annually; while sugar outperformed both, rising at an annual rate of 8.8%. On the other hand, the traditional food crops performed very poorly: cassava production fell at an annual rate of 1.4%; rice rose at a rate of 1.6% per annum; and beans rose at a rate of 0.8% a year. Only maize performed in a manner more or less compatible with population growth, recording an annual increase of 3.2% (aided by an upturn at the end of the period). Over the 1975-86 period domestic per capita food production declined for beans, cassava and maize, stagnated in rice, and marked secure gains only in wheat, which was increasingly substituted for traditional products in domestic consumption (see Table 10). It is evident that in the absence of major subsidies for wheat producers, the per capita domestic availability of calories would have declined significantly in the 1970s.

This dualism in agricultural sector performance, and particularly the poor performance of traditional food crops, is of special significance because it runs roughly parallel to the division between large-scale production and smallholder production (see Table 11). Sugar and soy production in particular are dominated by large-scale producers; small-scale producers have a pronounced presence in traditional food crops, especially beans, manioc, maize (in spite of large-scale production in the

Centre-West and São Paulo), and, to a lesser extent, rice (figures for which are heavily influenced by large-scale production in Rio Grande do Sul).

Table 10. Brazil — Per Capita Food Production, 1975-86 (kgs/capita/annum).

Year	Rice	Beans	Maize	Cassava	Wheat
1975	74.0	21.7	155.4	284.4	38.9
1980	81.9	16.5	171.4	196.6	62.7
1986	75.1	16.0	148.1	184.4	57.5

Source: FIBGE and CACEX/FAO.

Table 11. Distribution of Production by Size of Operation, 1975.

Crop	Size-Class (in units of yearly minimum wages)						
	-1	1-2	2-9	9-18	18-37	37-100	+100
Beans	61.0	15.6	16.8	3.1	1.8	1.1	0.6
Cocoa	1.7	2.0	12.7	12.4	18.4	28.0	24.9
Coffee	2.1	2.5	16.7	14.9	17.0	19.1	27.7
Corn	36.0	19.0	27.7	6.3	4.9	4.1	2.1
Cotton (a)	39.2	16.4	27.1	7.6	5.2	3.0	1.5
Cotton (h)	10.5	6.8	26.3	13.6	11.6	13.3	17.9
Manioc	47.7	20.6	24.1	3.8	2.3	1.0	0.5
Oranges	22.2	6.5	17.4	9.9	9.9	12.5	21.6
Rice	20.6	10.9	20.2	7.1	7.4	11.0	22.8
Sugarcane	3.2	1.2	5.9	4.0	5.7	12.9	66.6
Soybeans	5.5	7.0	21.3	12.2	13.7	20.0	20.3
Tobacco	13.0	16.4	63.6	4.9	1.3	0.7	0.1
Wheat	8.4	5.9	23.8	13.9	16.7	20.9	10.4

(a) Tree — (b) Herbaceous.

Source: IBGE, 1975. Agricultural Census (special tabulations).

Two factors appear to be of significance in this poor performance in traditional food crops: on the one hand, large-scale producers did not enter the sector in force; on the other, small-scale producers did not increase production at a significant rate. The reticence of large-scale producers appears to have been related principally to risk and technology

factors. Both national and foreign analysts have argued that for capitalized producers, risk aversion is a major concern, and that export crops have confronted a more stable market in terms of prices, (not least because they have been much less a target for price controls, quotas, etc). Indeed, between 1973 and 1979 (deflated) international prices for soybeans were quite advantageous, and orange prices were stable. Not only were prices relatively stable, and capital abundant, but the government indicated its clear preference for export development through significant expenditures on research for export crops, which, at least in the case of soybeans, seems to have made a very substantial contribution to expansion —particularly in the Centre-West region and parts of Bahia. (4)

In contrast, not only was research on domestic food crops relatively limited (particularly with regard to immediately implementable recommendations), but the sector was also subject to periodic government intervention in the market. Under the rubric of controlling inflation, government engaged in price controls and importation of foodstuffs (in a cycle of intervention-shortage-price rise-intervention) which both destabilized returns to food crop production and depressed profitability. Attempts to contain increases in the cost of (agricultural) wage goods in a generally inflationary context led to a quite pronounced absence of transformations in the domestic food crop sector equivalent to those occurring in the export sector —at least with regard to rapid capitalization.

In effect, government intervention in the market for food crops minimized the competition between export and food crop production. It contained the urban wage bill and stimulated the generation of foreign exchange for importation of the capital and intermediary goods that were essential to allow the transformation of high profits (derived in part from the wage containment policy) into the material expansion of capital. This policy necessarily generated structural dualism in agriculture as a whole. Relatively high returns to export production offered an incentive to take abundant credits to capitalize production. The export sector, therefore, rapidly expanded as a highly modern sector of production in which the cheapness of capital changed relative factor costs and impelled the substitution of labour by capital. The effect was a transformation of relations of production in the sector, with the rapid decline of the traditional latifundium-minifundium system and the expulsion of the small tenantry. In contrast, the depressed returns to food crop production represented a disincentive to the entry of capital into the sector, dictating the continuation of traditional, non-capitalized systems of production. The emergence of this dualism must be understood as a direct consequence of government

policy in promoting the interests of the industrial sector (i.e., cheap non-industrial wage goods and rising exports).

The poor performance and structural stagnation of the food crop sector has been attributable to pricing policy and patterns of credit distribution (an issue addressed below). That food output (excluding the special case of wheat) did not suffer even more is explicable in terms of the essentially non-capitalist relations of production in the sector. (5) Not only did the price structure inhibit the formation of more advanced production relations in the food crop sector, but it was also viable **just as long as traditional relations prevailed** (i.e., smallholdings employing little capital and with a high family labour content). Had the sector been organized on a modern basis, prevailing price relations and commercial instability would have induced a much greater crisis of food production than actually took place.

As indicated in Table 11, the major group of contributors to production of traditional food crops were small-scale operators (either proprietors or tenants of various sorts). While certain groups of relatively small-scale producers were able to capitalize in the 1970s, principally in export crops in the South (where historic patterns of occupation did not lead to a proliferation of microfundia, and did establish the basis of a small farm sector) and in fruit and vegetable production serving urban markets, the mass of small-scale producers have operated on the basis of a very low level of capitalization. In fact, studies in the Northeast (where the majority of small-scale operations are located) in the mid-1970s indicated that a very large section of this population produced with virtually no capital whatsoever. In this sector, then, returns to capital have not been decisive in determining levels of production, which have been more closely associated with the "vegetative" growth of the population and number of farm units. Thus production was more or less stable in the sector in spite of low levels of profitability—a phenomenon which could not have occurred had production been on a capitalized basis.

Table 12. Research Expenditures in EMBRAPA (millions of US\$).

1974	1975	1976	1977	1978	1979	1980	1981	1982
22.2	60.6	75.6	90.2	112.3	148.4	151.9	176.2	232.5

Source: EMBRAPA.

Two additional factors contributed to the poor performance of the food crop sector: research policy and credit policy. In the 1970s and early 1980s expenditure on agricultural research in Brazil grew rapidly (see Table 12). However, relatively little attention was paid to domestic food crops (as opposed to export crops), particularly under the small-scale production conditions prevailing in the sector. Equally, relatively little agricultural credit was channelled to the smallholder sector, which, to repeat, was the backbone of food crop production. Table 13 indicates that 5.5% of rural credit went to farms of less than 10 ha in 1970, 3.2% in 1975 and 4.8% in 1980. By contrast, operations under 10 ha accounted for 68.3% of all farms in 1970.

Table 13. Distribution of Rural Credit by Farm Size.

Area (ha)	0-5	5-10	10-20	20-50	50-100	100-200	500- 1000	1000 5000	-Over 5000
1970	2.30	3.20	7.00	14.30	11.70	30.80	11.00	14.20	5.40
1975	1.30	1.90	5.10	12.50	11.00	32.10	12.40	16.60	6.90
1980	2.00	2.80	6.50	13.70	11.60	30.60	11.50	15.20	6.20

Source: Passos and Khan, 1988

It is quite probable that lack of access to credit among small-scale food crop producers presented a significant obstacle to sectoral expansion. However, it was far from the only factor. The risks presented to capitalization by the marginal agricultural conditions under which most small-scale producers operate, and the lack of accessible technology to deal with these conditions must be seen as structural disincentives to invest in production quite separate from the issue of access to credit. It should also be noted that small-scale producers also typically received prices lower than those received by larger-scale producers (for the same crops), not least because of the practical inaccessibility of the government-organized commercial channels that acquired some importance by the beginning of the 1980s.

While the smallholder food crop sector has not been characterized by high sensitivity to returns to capital (not least because of its relative absence), it has been responsive to returns to labour. It is undeniably the case that a large mass of rural labour in the 1970s moved from the countryside to the towns in search of higher returns to labour. That is, in

addition to the expulsion effect in areas of capitalized development there was also a voluntary migratory effect from the "traditional" sector of smallholder production. It is calculated that between 1960 and 1970, 12.9 million people migrated out of rural areas, and 15.6 million between 1970 and 1980. Over two decades, therefore, nearly 29 million people migrated out of rural society. Particularly in the labour-driven smallholder sector, this had a definite impact on production levels and thus supply to the internal market. It is thus clear that a policy of "primary accumulation" in the food crop sector based upon maintenance of low prices had its own limits. While the unresponsiveness of the sector to returns to capital permitted continuation of production at low levels of profitability, the responsiveness of the sector to returns to labour necessarily contradicted the maintenance of the structure, i.e., the very pace of urban expansion to which the "traditional" sector contributed (in the form of cheap food) generated a demand for urban labour draining the traditional sector's productive resources.

Tensions in the Model

The agricultural development model promoted to serve very rapid industrial accumulation thus held within it implicit tensions which would be hard to sustain through any serious deterioration of the external conjuncture. Modern sector expansion was predicated to some extent upon the cheapness of capital, which itself was conditioned by a significant net influx of external finance—the servicing of which was, in part, dependent upon advantageous international prices for export products. The weakness of the traditional food crop sector was tolerable just as long as finance was available to "top up" supplies through imports and to continue indirect subsidization of wheat production (the expansion of which was extremely important in stabilizing domestic food supply in the face of the poor performance of traditional food crops). The outflow of labour from the smallholder sector to the cities was sustainable only as long as the industrial and service sectors expanded apace.

By the beginning of the 1980s all the factors contributing to the viability of the model were problematic. As indicated in Chapter 1, the flow of capital from abroad turned negative and was increasingly costly (in terms of real interest rates). Severe difficulties in government finance reduced the capacity to subsidize. Debt service difficulties placed a premium upon import containment—especially in the context of dramatic deterioration in terms of trade. And continued urban economic expansion

sufficient to absorb labour leaving the countryside appeared unlikely—especially after the "shock" of 1981-83. In this context, the view that the future of agriculture involved simple expansion of the modern sector and the virtual disappearance of the peasantry (through its displacement into the modern urban and rural sectors) was no longer tenable. From a purely economic view, however, the issue was not only the sustainability of the model in the new economic conjuncture—but also its efficiency. The modern sector had expanded, in part, on the basis of a fundamental distortion of factor costs—i.e., upon negative interest rates—promoting capital-intensive development and the erosion of labour-intensive activities irrespective of the economic (as opposed to financial) costs and benefits. In a context of much scarcer capital, it was not obvious that such a counter-economic policy could be pursued further.

Table 14. Total Rural Credit (in constant 1986 Cz\$ billion).

1979	1980	1981	1982	1983	1984	1985	1986	1987
235.1	224.8	195.0	180.8	142.5	87.1	124.1	179.8	145.9

Source: Table 3, Appendix 3.

The economic crisis of the 1980s directly affected the government policy instrument that had played such a key role in accelerating the rapid emergence of the modern sector: the supply of subsidized official credit. The reduction in rural credit (principally official credit) was dramatic, falling over 60% between the peak (1979) and trough (1984) years (see Table 14). Although there was a partial recovery by 1986, the real value of rural credit is projected to fall again over the 1987-90 period. Agricultural credit as a percentage of agricultural output thus fell from 80% in 1982, to 48% in 1983, 27% in 1984, and 36% in 1985. Interest rates have also been made more compatible with the underlying rate of inflation. By 1984, full monetary correction (for inflation) plus interest rates of 3% were imposed on most rural credit (with the exception of special lending programmes), raising the average real interest rate from -30.5% in 1982 to -0.5% in 1985. After the failure of the Cruzado Plan, the Macro-Economic Control Plan of June 1987 renewed the movement towards full withdrawal of subsidies from rural credit; in 1988 the interest rate for official rural credit ranged from 7% to 12% plus OTN monetary correction.

Revival in the Food Crop Sector and the Smallholder Contribution

Perhaps the most striking aspect of the evolution of agriculture in the 1980s has been the relative dynamism of the sector of production for the domestic market (excluding livestock). This corresponds to three factors: weakness in export prices (particularly for grains); more positive government intervention to support domestic prices and extend credit for food crops; and renewed expansion in the traditional sector.

Wheat production, in particular, has responded well to the maintenance of high internal producer prices relative to the difficulties experienced by soy in international markets —within a noticeable process of change in the output mix (particularly in the South), a process also taking place with relation to the area under livestock production. However, the domestic food sector in general has performed well in the 1980s relative to the second half of the 1970s. Government must take some of the credit for this inasmuch as the growing tension between poor domestic food crop performance and constraints on the availability of foreign exchange for imports began to produce a positive policy reaction from 1979. In particular, minimum price policy has raised levels much closer to market prices, offering more positive guarantees for domestic food producers, stabilizing prices that in the late 1970s were highly erratic.

Table 15. Variation in Number of Persons Occupied in Farm Establishments Below 10 Hectares (in thousands).

	1975/80	1975/80	1980/85
Central Northeast*	482	-289	903
Maranhão and Piauí	354	161	-13
Southeast	11	-3	200
Centre-West	76	-53	24
South	93	-216	151
TOTAL	1 016	-400	1 265

* Excluding Maranhão and Piauí.

Source: Censo Agropecuario.

The move from soy to wheat (compensated for, on the aggregate level, by technological improvements permitting greater exploitation of the Cerrado zone of the Centre-West), and improvements in minimum price policy principally concerned larger-scale producers. However, the general improvement in food crop output was also impelled by a rapid expansion in the number of producers in the small-scale sector in nearly all areas (see Table 15) —contradicting earlier paths of development. **While this expansion certainly contributed to the gross output of the food crop sector, it did not necessarily express a rise in the absolute level of net returns to small-scale production.** Rather, it is evident that the contraction in the urban economy in the early 1980s considerably reduced levels of migration from rural areas, which, combined with a faltering in the expansion of large-scale production (and particularly in the expansion of extensive livestock production) and a reduction in the proliferation of large establishments, gave major impetus to the formation of new farm units —particularly in the Northeast, which had been one of the major contributors to the migratory current (particularly in the form of unqualified labourers, demand for which fell particularly rapidly in the recession as a result of a decline in new construction).

It seems likely that improvement in the food crop sector stemmed from both expansion of large-scale production (including some incursions into traditional crops) and an increase in the number of traditional small-scale producers (though not necessarily from an increase in the net output of each unit of the latter). The upturn in the sector cannot be taken as indicative of long-term improvement in smallholder conditions of production. Quite the opposite may be the case. The decomposition of a simple dualism of modern production in export crops and traditional small-scale production in domestic food crops may herald the development of a dualism **within** the food crop sector —i.e., an area that was, in effect, a form of "reservation" for small-scale producers, living on low incomes but protected from direct competition in commodity markets by low prevailing prices, may be in the process of being penetrated by new forms of production benefiting from superior access to credit (albeit at higher prices than hitherto prevailed) and superior access to guaranteed output price mechanisms. Large scale production of maize and irrigated rice in the Centre-West and North provide striking examples of this development. Small-scale producers may be threatened on their "own" ground, subject to increased market competition at precisely the time in which they have fewer off-farm alternatives for income, and in which their individual access to productive resources is **shrinking** as a result of greater farm formation on a limited available land base.

Notwithstanding some advances in smallholder productivity linked to specific programmes (such as PROVARZEAS), the proliferation of micro-fundia in the 1980s is an extremely ominous sign.

Conclusion

Throughout the period of rapid economic growth the prosperity of the smallholder sector was depressed, *inter alia*, by low and unstable producer prices for the crops in which they tended to concentrate, i.e., domestic food crops. Government intervention in the agricultural sector as a whole was directed to large-scale, predominantly export production to secure the foreign exchange needed for industrial expansion. Although not deliberately intended to negatively affect the smallholder population, it did. Smallholders were subject to increased competition for land, and to restricted access to the agricultural off-farm labour necessary for household reproduction—which, indeed, was an essential condition for the viability of the typically very small holdings allowed to them in a regime of extreme concentration of landed (indeed, all) property. To a certain extent, the negative effects of these changes were mitigated by the buoyancy of the urban sector—allowing migrant labour and remittances as well as complete abandonment of the agricultural vocation. However, these "mitigating" factors in no way signified enhanced (or even stabilized) viability for small-scale operations.

The need to address the incipient crisis of national food supply arising from prior neglect of smallholders and the food crop sector has improved prospects for sub-sectoral expansion. In a certain sense, this provides a new opportunity for expansion of smallholder income. The realization of these opportunities will depend upon the availability of means which have been hitherto absent. At the same time it must be recognized that the conditions of smallholders are probably deteriorating. Declining employment alternatives and pressures on the land base present a serious threat to incomes that are already low—representing a dramatic social problem that, within the context of the redemocratization of the Brazilian political order, will necessarily elicit some sort of response. This Chapter has outlined some of the critical sector policy parameters of smallholder development that will have to be addressed in any smallholder-support intervention. Chapter 3 will address more directly the position of the smallholder group in relation to basic productive resources and seek to assess the consequences for income.

NOTES CHAPTER 2.

- 1) The debate about "push" and "pull" factors in migration in Brazil is extensive. In the South part of the rural exodus was caused by the attraction of urban employment. Equally, some smallholders capitalized upon rising land prices by selling their plots and purchasing larger holdings in frontier areas of Brazil and Paraguay. Nonetheless the change in the organization of the large-scale production process was decisive.
 - 2) In the period 1971-80, 465,539 tractors were sold in Brazil.
 - 3) Support for wheat production was particularly strong in the 1970s. After 1980 there was a relative shift in the emphasis of domestic food supply policy towards more traditional national crops. In part, this corresponds to a declining commitment to commodity subsidies (to consumers) as an instrument of policy.
 - 4) In general, however, the expansion of Brazilian agriculture has been marked by a heavy dependence upon increases in the area under cultivation rather than rising productivity per hectare.
 - 5) This was markedly the case until the end of the 1970s. Some changes have occurred in the 1980s, notably in the expansion of modern sector bean production.
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CHAPTER 3 SMALLHOLDINGS AND RURAL POVERTY

OVERVIEW

The historical evolution of the greater part of occupied Brazil formed a large mass of small-scale agricultural producers and rural landless. In spite of the transformations of the last three decades, this mass persists—albeit as a proportionally smaller part of Brazilian society. As **agricultural** producers, the families who compose this group have not been privileged participants in the process of economic growth. As Chapter 2 indicates, as food crop producers, they have contributed to expansion of the national wealth without sharing in it to a significant degree.

Poverty persists on a large scale in Brazil. In 1970, 43.9% of families were below the poverty line, as defined (by no means generously) in terms of one-fourth of a minimum salary per capita. The economic surge of the 1970s did have a clear positive effect: by 1980 the percentage of families below the poverty line had been reduced to 17.7%. Absolute numbers of the poor, however, are still very large. This 17.7% of families represented some 4.43 million families, or some 24.4 million people.

Poverty in Brazil is by no means distributed evenly. It is a markedly rural phenomenon. Thus, according to one analysis, in 1980 only 9.4% of urban families were poor, compared to 36.2% of rural families. In spite of the fact that the urban population was nearly 70% of the total in 1980, the absolute number of poor rural households (2.8 million) was significantly greater than the absolute number of poor urban households (1.62 million). The problem of poverty in Brazil is principally rural, not only because of the number of poor in the rural areas, but also because of the fact that much urban poverty is little more than a displacement of the rural poverty question.

Table 16. Distribution of Rural Households in Terms of Per Capita Income Measured by the Minimum Wage in 1980.

	Average Family Income	Median Family Income	Gini Coefficient	% Below Poverty Line
Brazil	0.491	0.245	0.594	51.3
North	0.428	0.276	0.480	45.6
Northeast	0.272	0.175	0.511	68.8
Southeast*	0.576	0.286	0.587	44.4
Sao Paulo	0.975	0.476	0.594	20.2
South	0.698	0.363	0.582	34.5
Centre-West	0.653	0.313	0.604	40.7

* Excluding São Paulo.

Source: Hoffman (1988) based on FIBGE, Demographic Census, 1980.

Data for 1974/75 (taken from the nation-wide household expenditure survey, ENDEF) indicate that poverty is also unequally distributed among regions. In 1974, 29% of all Brazilian households were poor, but this proportion rose to 48% in the Northeast. This regional concentration ran through all economic sectors. Taking rural Brazil as a whole, the average per capita income in rural households in 1980 was 0.491 minimum salaries. In the Northeast, the average was 0.272 minimum salaries—considerably less than half of the average in the Southeast, São Paulo, the South and the Centre-West (see Table 16). Using the same method of calculation, 51.3% of rural households in Brazil were below the poverty line in 1980, but no less than 68.8% in the Northeast. Calculated on this basis, there were approximately 12 million people below the absolute poverty line in rural Northeast Brazil in 1980.

Despite considerable controversy over the accuracy and methodology of alternative measures of poverty in Brazil, there is wide consensus on two major propositions: 1) the Northeast is the principal locus of absolute poverty in Brazil and, indeed, in the Western Hemisphere; and 2) absolute poverty is heavily concentrated in the agricultural sector of the Northeast. This poverty is profound. Rural per capita gross product has fluctuated considerably in recent years in the Northeast, but it has been consistently very low: it rose from US\$ 149 in 1970 to US\$ 234 in 1975. Having reached US\$ 304 in 1980, it fell back to US\$ 196 in 1985 (only 13.1% of national per capita gross product in the latter years).

The Northeast is the focal point of poverty in Brazil, and within the Northeast, rural poverty is the dominant social fact. The Northeast is also the (statistical) centre of smallholder agriculture. In Brazil, in 1985 there were enumerated 3,085,841 farm establishments with less than 10 ha; 1,986,470 of these (64.4%) were in the Northeast. The concentration of the nation's very small-scale holdings (less than 2 ha) in the Northeast is even more extreme: of the 1.265 million enumerated nationally, some 1.063 million (or 84%) were located in the Northeast (see Table 17).

Table 17. Distribution of Farm Establishments by Size In Brazil and Northeast, 1985, (In ha).

	Brazil	Northeast	% in Northeast
Total farm establishments	5 834 779	2 817 908	48.30
Less than	103 085 841	1 986 470	64.37
0 - 1	645 624	556 934	86.26
1 - 2	619 828	505 810	81.60
Over 2	4 569 327	1 755 164	38.41

Source: Synopsis of Agricultural Census, 1985.

This concentration of rural poverty in the Northeast is by no means a new phenomenon. At least since the late 1950s the issue of rural poverty in the area (as opposed to the impact of frequent, but intermittent droughts) has been identified as a national problem with important social and political implications. Massive migration out of the rural areas of the Northeast to a booming economy (principally in the South) and a low rate of new small farm formation in the latter part of the 1970s perhaps lowered the level of attention to the smallholder issue as a tractable agricultural issue. It is evident, however, that the problem of poverty in the Northeast will not disappear, as it were, of its own accord. In the economic down-turn of the 1980s the number of farm establishments under 10 ha in the Northeast expanded by no less than 331,626 (between 1980 and 1985). From the viewpoint of government and external assistance agencies, the Northeast has appeared as the prime development problem area. It is necessarily the case that, IFAD, too must address the problem of the Northeast, and, consequently, it is upon this region that the IFAD Special Programming Mission to Brazil has primarily focused.

Agriculture and Poverty in the Northeast

Natural zones. The Northeast is defined according to the geographic division of Brazil established by the Brazilian Institute of Geography and Statistics (IBGE) in 1968. Thus defined, the region includes the states of Maranhao, Piaui, Ceara, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, Sergipe, Bahia, and the federal territory of Fernando de Noronha (now part of Pernambuco). The combined area is some 1.5 million square kilometres, or 18.2% of the country's total land area. (1)

The Northeast is extremely heterogeneous in terms of climate, topography, vegetation and economic and social characteristics. The Zona da Mata, literally "forest zone", stretches along the coast from Rio Grande do Norte to southern Bahia in a narrow strip ranging up to 150 km in width. The total land area of this sub-region is no more than 128,000 km², or about 8% of the region. However, it contains approximately one-third of the regional population, six of the nine state capitals and a major proportion of industry and plantation agriculture (largely sugarcane and cocoa). The ecological conditions of the Zona da Mata are generally favourable for agriculture, with soils of good natural fertility and abundant and regular rainfall (exceeding 2,000 mm per year in some areas).

The **Agrreste** is a transitional zone between the humid Zona da Mata and the semi-arid Sertao. Though its land area is about twice that of the Zona da Mata, its population is only 60% as large. Here one finds a landscape which can be highly variable over short distances, with moist areas (**brejos**), generally of higher elevation, contiguous with semi-arid areas covered with drought-resistant **caatinga** vegetation. Aside from the wet areas, annual precipitation, concentrated in the March-June period, is almost always less than 1,000 mm. The natural fertility of the soils is medium to low. The rural economy of the Agrreste is dominated by mixed farming for the domestic market, as well as the raising of beef and dairy cattle.

The **Sertao**, comprising some 750,000 km², is the largest of the sub-regions and the one most prone to periodic droughts. (2) It encompasses the greater part of Ceara, Rio Grande do Norte, Paraiba, Pernambuco and Bahia and smaller portions of every other northeastern state except for Maranhao. However, its total population is only slightly greater than that of the Zona da Mata. Annual rainfall averages 700 mm for the Sertao as a whole, but ranges from 250 mm in the driest areas to over 1,000 mm in the humid uplands. Various soils suitable for cultivation occur, but lithosols

and regosols, poor for agriculture, are widespread. The variations in climate and soils permit a diverse rural economy with extensive cattle-raising and the extraction of drought-resistant plants (e.g., **mocó** cotton, **carnauba** palm and **oiticica** nuts) predominating in the semi-arid areas, and the production of fruits, vegetables, manioc, sugarcane and other crops in the cooler, more humid uplands.

The **Middle North**, comprised of Maranhao and most of Piaui, accounts for one-fourth of the Northeast's land area and about one-fifth of its population. In climatic terms, it is a transitional zone between the semi-arid Sertao to the south and west and the humid Amazon region to the north and east. Hence, annual precipitation ranges from less than 600 mm in eastern Piaui to more than 2,000 mm in northern Maranhao. The soils of the Middle North are varied, and some possess good natural fertility. Although Piaui and coastal Maranhao have been settled since colonial days, the central and western parts of the latter state are still in the process of frontier expansion. In the areas of older settlement, extensive cattle-raising and subsistence agriculture predominate, with significant palm-related extractive activities (based on **carnauba** wax and **babaçu** nuts) taking place in the lowlands of the Parnaiba River and in northeastern Maranhao. Rice is also an important cash crop. On the frontier, slash-and-burn agriculture followed by conversion to pasture is the traditional form of land use.

Table 18. Farm Establishments and Agricultural Labour in the Northeast, 1960-85.

	1960	1970	1980	1985
Establishments	1 408 114	2 206 787	2 447 512	2 817 908
Area (ha)	62 990 438	74 297 115	88 442 302	91 986 505
Area under cultivation	8 727 700	10 322 862	14 191 935	14 426 886
Labour	6 659 175	7 568 830	9 333 166	10 374 772
Cattle	11 555 757	13 805 621	21 505 844	22 286 334

Source: Preliminary Synopsis, Agricultural Census, 1985.

Farm distribution. Agriculture in the Northeast encompasses a vast area (nearly 92 million ha in farm establishments), only 16% of which is under some form of cultivation. The number of establishments is also enormous, amounting to some 2.8 million in 1985 (see Table 18). Notwithstanding the huge area (not least the large uncultivated area), it is a region of the classic florescence of the minifundio. In 1985 nearly 60%

of all farms were below 5 ha in size, but these occupied only 3.1% of the farm area. On the other extreme, the 5.7% of farms over 100 ha occupied 71.4% of the farm area (see Table 19). Within a national context marked by pronounced inequality of landed property, the Northeast has the greatest inequality, with the remarkable Gini coefficient of .865 (see Table 20). Actual inequality of property is even higher than this figure would suggest, as data refer only to distribution by size of farm establishments, not to underlying property relations.

Table 19. Land Distribution in Northeast Brazil, 1985 (percentages).

Size of Farm/ Establishment	Number	Area
Below 5	59.4	3.1
5 - 10	11.1	2.3
10 - 20	9.0	3.7
20 - 50	9.9	9.3
50 - 100	4.9	10.2
100 - 500	4.5	27.6
500 - 1,000	0.6	11.7
> 1,000	0.6	32.1

Source: Preliminary Synopsis, 1985 Agricultural Census.

Table 20. Gini Coefficients of the Distribution of Farm Establishments in Brazil, 1985.

Brazil	0.854
North	0.795
Northeast	0.865
Southeast	0.744
South	0.744
Centre-west	0.836

Source: See Table 6, Appendix 1.

Within this general situation of extremely limited access to land by smallholders in ecological conditions which are, on the whole, very far from appropriate for intensive cultivation, the condition of the large majority—the nearly 60% of farms with access to less than 5 ha of land—merits particular attention. The average holding size of this group, encompassing approximately 1.7 million units, was only 1.7 ha in 1985 (down from 1.82 in 1980). The holdings of farms over 1,000 ha in size expanded by 3% between 1975 and 1985; the area of expansion of the latter category is equivalent to the entire area occupied by the group of farms under 5 ha in size.

Table 21. Northeast Brazil – Farms by Tenure and Size (size in ha).

	Less than 1 ha		1-2 ha		Under 10 ha	
	Number	%	Number	%	Number	%
Owner	138 341	24.84	155 854	30.81	814 869	41.02
Renter	156 923	28.18	118 074	23.34	362 845	18.27
Sharecroppers	54 229	9.74	61 518	12.16	205 526	10.35
Squatter	204 795	36.77	167 710	33.16	591 599	29.78
Other	638	0.11	782	0.15	3 045	0.15
Not declared	2 008	0.36	1 872	0.37	8 586	0.43
TOTAL	556 934		505 810		1 986 470	

Source: Preliminary Synopsis, 1985 Agricultural Census.

The agricultural situation in the Northeast, therefore, exhibits in the clearest possible form the logic of the latifundio-minifundio system. In spite of a relatively low level of land use, a very large rural population is kept within the limits of very small holdings, necessitating that recourse be made to off-own-farm labour to ensure a minimum level of household consumption. It is important to note, in terms of the sector's ability to resist encroachment on the small area actually available to it, that this mass of very small producers are far from necessarily owners of the establishments they "manage". Table 21 offers a breakdown of the importance of diverse forms of tenure within the smallholding group. Taking the whole sector of farms under 10 ha, only 41% are owned by their operators. This percentage is even lower among microfundia: only 25% of operations under 1 ha are on land owned by the operator, and only 31% among the 1-2 ha category. The dominant fact of a very large proportion of the rural population is not only the small size of operations

(a phenomenon partly linked to population growth and sub-division of holdings), but also uncertain access to the land actually worked. The largest single category in the smallest size groups is comprised of squatters.

Detailed contemporary information on the incidence of absolute landlessness in the rural Northeast is not available. Figures from the early 1970s, however, suggest that this is not a common phenomenon. Of the total agricultural population in this period, only approximately 10% were permanent wage labourers. The vast majority of agricultural labourers had some access to land, including those working at some point or other for large scale producers. With regard to the *de facto* transfer of labour, sharecropping is an extremely important phenomenon. In the early 1970s in the Northeast, sharecroppers accounted for some 21.5% of the agricultural population, twice as much as the permanent wage labour force. While this group seemed to have shrunk considerably by 1985 (the change may be attributable in part to some ambiguities in the line of differentiation between sharecroppers and renters, the **combined** total of whom did not suffer a significant reduction between 1970 and 1985), it is still a major group among the rural poor. (3) It is also a group particularly vulnerable to agricultural modernization. In theory, at least, sharecropping emerges in situations where landowners are unwilling to shoulder the risks of capitalized production on the basis of direct investment (as shaped, *inter alia*, by unstable prices and highly variable output). Any reduction of risk tends to lead to expulsion of sharecroppers and their (partial) reintegration as wage labour—but not typically on a permanent basis.

While the latifundium-minifundium system in the Northeast has demonstrated considerable structural stability over time, it has also been increasingly linked with other sectors, not least through the exodus of rural labour inhibiting the proliferation of small scale units which has historically been the typical form of smallholder "expansion" in response to population growth. This was very clear in the second half of the 1970s, when the growth of the rural labour force and the number of small scale establishments were both low. Indeed, the growth of small scale units by only 12,913 in 1975-80 represented virtual stagnation and the *de facto* abandonment of the "normal" response to population increase—a phenomenon that must be attributed to large scale migration to urban (and some agricultural) areas in the Northeast and elsewhere to serve a booming labour market (other "push" factors impelling migration will be dealt with below). The ability of migration to serve as an "escape valve" for the tensions within the dominant system of production in the Northeast

appears, however, to have come to an abrupt (if, perhaps, temporary) end in 1980-85, which was marked by a tremendous increase in small-farm formation in the Northeast. That this expansion responded to diminished alternatives elsewhere rather than to enhanced agricultural opportunities in the region is clearly indicated by the fact that 84% of the rise in farm numbers occurred in the category of under 5 ha.

Between 1980 and 1985, the number of farms under 10 ha in the region rose by no less than 331,626, an increase 25 times higher than in the previous five-year period. (4) There can be no doubt that this involved a deterioration in the "average" conditions of smallholder production by virtue of the fact that new units tended to be smaller than before, and on even more insecure tenure bases. Reference has already been made to the fall in the average size of farms in the under 5 ha category. Equally striking is the increase in the number of units held on a sharecropping basis or without any formal (even temporary) right to land at all. Thus the number of sharecropping operations rose by nearly 98,000 (79%), while the number of squatted farms rose by 167,000 (33%). The rural labour force in the Northeast increased by over one million in five years.

Rural Transformation

The situation of the massive smallholder population of the Northeast, which represents, of course, the overwhelming contingent in the 69% of the rural population living beneath the **absolute** poverty line, is very much affected by historic patterns of land tenure limiting access to the basic productive resource. It is also being increasingly shaped by the gradual transformation of Northeastern agriculture. This change is certainly not as pronounced as in the South, for example, where transformation in the processes and relations of production (and urban "pull" factors) led to a decline in the **absolute** level of rural employment by 440,000 and in the number of small establishments (under 10 ha) by nearly 9,000 in 1975-80, but it is nonetheless taking place —quite intensely in some areas, if not uniformly.

The severe social and economic conditions associated with the periodic droughts, and their tangible expression in public work fronts and the out-migration of drought victims (**flagelados**), have prompted sweeping generalizations about agricultural production systems in the Northeast. The stereotyped view, reinforced by novels and other media, identifies two basic systems: cattle ranching/cotton/subsistence food

production in the semi-arid interior and the monoculture of sugarcane in the humid coastal zone (Sampaio and Pessoa, 1987). However, this simplistic characterization ignores the diversity and specificity of agricultural production systems and obscures differences in production relations and rural social structures.

In effect, change in production systems in the four principle physiographic zones identified above (Zona da Mata, Agreste, Sertao, and Middle North) has involved different factors and has evolved at different rates. Given the fact that there is no full consensus on regional (and micro-regional) classification (and census data are presented to follow politico-administrative lines), it is impossible to generate subsets of data for the Northeast on a homogeneous micro-region basis —albeit Table 22 gives a general impression of population distribution among major zones. However, some attempt will be made to offer general characterizations of the most important structures and transformations.

Table 22. Distribution of Rural Population In Northeast by Geo-Economic Zone, 1980.

	Rural Population	% of Total Rural Population
Middle North	2 972 000	16.57
Cerrado	185 600	1.03
Fertile Strips	978 400	5.45
Agreste	2 719 000	15.16
Littoral/Zona da Mata	2 975 000	16.59
Semi-Arid Zone	8 106 000	45.19
TOTAL	17 940 000	100.00

Source: Calculated from tables in Otmar de Carvalho, *A Economia Política do Nordeste*, Rio de Janeiro, 1988.

The Zona da Mata. The zone is dominated by four identifiable production systems: sugarcane, cocoa, rice, and coconut/mixed crops. Significant changes have occurred in the sugarcane and coconut/mixed crops areas involving the advance of capitalization in two forms: mechanization and livestock.

Sugarcane production is now heavily concentrated in the states of Pernambuco, Alagoas and, to a lesser extent, Paraíba and irrigated areas in the Sao Francisco Valley. The zone is characterized by an extremely high concentration of land, with strong monocultural characteristics. Under the stimulus of the National Alcohol Programme, launched in 1975, sugarcane growers have expanded the frontier of production by some 0.25 million hectares. Although this has had some impact in terms of crop displacement, recent developments are perhaps more important from the point of view of finalization of an ongoing transformation of social relations, particularly the demise of the *morada* system of resident employment relations. Historically, the labour force comprised resident wage workers (*moradores*), with access to small subsistence holdings (*sítios*), and small tenants (*foreiros*), who paid annual money rent and labour services to the landowner. Rising demand for sugar and the modernization of field operations (accelerated by fiscal incentives and special credit lines) has led to the gradual incorporation of *sítios* into cane production and has accentuated the seasonality of demand for labour. Part of the former *moradores* remained as permanent wage workers, but the majority were expelled, entering the rural labour market as casual wage workers available to meet the seasonal demands of the cane plantations. The change also had an impact upon those distant from the sugar complex, in the form of declining employment opportunities for seasonal migrants from the *Agreste*, who traditionally had complemented the permanent labour force during the harvest period (September-March).

The transformation of the sugar complex in the Zona da Mata, constitutes the clearest intrusion of modernization of the agricultural productive process (outside of irrigated enclaves). Corresponding to the nature of land tenure in the region, it involves the expansion of large-scale production. It also involves constriction of opportunities for small-scale producers—in relation to access to both land and off-farm labour opportunities. The Zona da Mata has also experienced the expansion of another form of agricultural capitalization, the growth of livestock production, particularly in the coconut/mixed farming areas—with similar impact on smallholders. However, it would be quite incorrect to project developments in the zone onto other areas within a uniform process of change. The structure and transformation of the *Agreste*, for example, demonstrates significant differences from the Zona da Mata.

The *Agreste*. Compared to the Zona da Mata, the *Agreste* represents a highly heterogeneous zone from the perspective of characterization in terms of production systems, both with regard to crop

diversification and patterns of tenure. It is characterized by a higher incidence of small-scale **property** (because of a particular pattern of settlement and dissolution of large scale estates) and, especially since the 1960s, by movement beyond the traditional system of cattle ranching/cotton/food staples into horticulture, fruit production, and more specialized livestock activities.

Notwithstanding the diversity of production, the Agreste exhibits certain common patterns of agricultural development. The first is associated with the increasingly pervasive penetration of market relations, leading to greater specialization and the emergence of capitalized producers in areas of family-labour agriculture. These include, but are not confined to, family-labour units linked *via* outgrower relations to agro-industrial firms processing fruit and vegetables. Areas of capitalized family-labour farms retain "enclave" characteristics but their number is growing. A second general tendency in the Agreste is the recent expansion of livestock activities, the so-called process of **pecuarização**, which has undermined the **latifundio-minifundio** complex and seriously disarticulated small-scale agriculture. This process was stimulated in the 1960s and 1970s by subsidized official credit for livestock production (including stock and pasture improvement), rising land values and speculative investment, and concern about land reform. Conversion to pasture is a convenient means of establishing a "productive enterprise" (**empresa rural**) (5) while the eviction of permanent workers and small tenants simplifies administration and removes possible claimants to the property.

Ferreira Irmao and Sampaio (1985) identify the advance of livestock activities, whether beef cattle or dairying, as the principal factor in the transformation of the zone since the 1950s. This central tendency apparently is associated with the rising share in total area under cultivation of establishments of between 100 and 500 ha, which gives the Agreste a less concentrated distribution of land tenure than the Zona da Mata. At the other end of the spectrum, the expansion of urban demand and agro-industrialization have provoked increasing social differentiation among small family-labour holdings. Small semi-subsistence units can be found side-by-side with capitalized family vegetable and fruit farms with relatively high incomes. Similarly, humid micro-regions tend to be heavily subdivided into small diversified farms, whereas the surrounding semi-arid areas are dominated by medium or large establishments based on ranching, cotton, and staple food crops. Aggregate data by size category

conceal this diversity and the corresponding differences in production relations and social organization.

The development of small-scale, capitalized and specialized crop producers (particularly in fruits and vegetables) in the Agreste is an important phenomenon insofar as it signifies that not all small-scale producers are locked into precarious and marginal production systems. However, the mass of small-scale producers remain on small holdings, producing staple foods with very limited use of credit and modern inputs—and these producers have been put very much on the defensive as a result of livestock expansion, involving both dairying and beef production.

The impact on small-scale producers of the conversion of cropland to grazing and the introduction of permanent, improved pasture operates through local land and labour markets. It is felt particularly by those "external" peasant producers whose reproduction depends on renting in additional land and finding temporary seasonal employment. These additional sources of income traditionally were provided by the *latifundio* which made land available for rent on short leases for the production of annual crops and offered employment in harvesting commercial crops. By restricting their access to land and labour markets even further, the *pecuarização* process has intensified the "reproduction squeeze" on small, sub-family farms, intensifying rural poverty and proletarianization. In the absence of urban expansion and given the adverse effects of modernization on rural employment opportunities, the differentiation and consolidation of these sub-family farms will be a long and painful process. This suggests that the Agreste will continue to retain large concentrations of impoverished family-labour farms well into the next century—albeit the conditions of the poor may be somewhat better than in the Zona da Mata.

The Sertao. Both the Zona da Mata and the Agreste are marked by a process of significant change—the latter in terms of displacement and proletarianization of small producers by the expansion of capitalized crop production, the former in terms of development of some small-scale producers and the erosion of the position of the rest by aggressive expansion of the livestock complex. The Sertao has been less dramatically susceptible to change placing immediate pressure on the impoverished smallholder complex. The predominant production system in the zone (encompassing large areas of Rio Grande do Norte, Paraíba, Pernambuco and most of the interior of Bahia) is livestock/mixed agriculture. Extensive cattle ranching (concentrated on medium and large establishments) is the main activity in this system, with staple food crops

in a secondary and subordinate role providing subsistence for the labour force.

Although data on land use for the 1960s and 1970s reveals livestock expansion on the basis of use of both natural grassland and planted pasture, the process of transformation (outside of newly irrigated zones along the Sao Francisco River, the humid micro-regions of the highlands of Ibiapaba, Baturite, and Teixeira/Alto Pajeu, and the Vale of Cariri in Ceara) should not be overstated. In the absence of irrigation in most areas, the possibilities of transforming the labour process and hence social production relations are limited. Relatively low economic returns on improved pasture and the lack of drought-resistant forage crops restrain livestock expansion. And small-scale sector transformation (equivalent, for example, to what has occurred in some areas of the Agreste) has been inhibited by the lack of accessible technical packages for rainfed agriculture in a semi-arid environment. Large-scale cotton production has suffered modification, with the introduction of some mechanized operations, but sharecropping remains an important phenomenon in the cotton zones of the Sertoes of Rio Grande do Norte, Paraiba and Ceara. The more immediate threat to smallholders is boll-weevil infestation, which has induced a significant decline in the area planted to cotton.

The Middle-North. Yet another pattern of development is exhibited in the Middle-North, which was originally a "receiving" zone for the displaced peasantry, only to be itself integrated into the process of large-scale production —particularly of cattle and, to some extent, rice.

This physiographic zone, which encompasses the states of Piaui and Maranhao, is the region of transition between the Sertao in the East and Amazonian forest in the West. Although initial settlement occurred in the colonial period, Maranhao became a major agricultural "frontier" only in the 1950s, when the severe droughts of 1951-53 and 1958 provoked large-scale migration from the semi-arid regions of the Northeast —a shift supported by SUDENE. Maranhao continued to have positive net migration rates until the later 1970s, marking the closure of the frontier and its capacity to absorb large contingents of landless rural migrants.

Until the 1960s this frontier was advanced by the spontaneous settlement of peasants and squatters practicing shifting patterns of subsistence cultivation, with rice eventually emerging as the main commercial crop as the frontier became incorporated in the market economy. The smallholder sector, however, has shown considerable

instability as a result of fiscal incentives for agricultural and livestock projects, the expansion of rural credit, and increasing State investment in rural infrastructure. Clashes between squatters and large scale agricultural and commercial capitals have been widespread in response to the expulsion of squatters due to the enclosure of frontier land, and the conversion to ranching of areas traditionally devoted to arable crops and extractive products. There have been widespread reports of irregular and exceptional measures taken to relocate small scale producers.

The process of expansion of the livestock sector appears to be particularly pronounced in eastern Piauí, encroaching upon areas of smallholder rice and mixed crop production. Fiscal incentives have played a major role in this development: under the Northeast Investment Fund (FINOR) scheme over one million head of cattle were purchased in Piauí and Maranhão in 1965-75. At current low carrying capacities, the area affected has been vast. As in many other areas, the articulation between small-scale and large-scale production remains, with considerable reliance in the small-farm unit upon off-farm sales of labour —albeit it would appear that sharecropping is less significant than, for example in large-scale cotton production in micro-regions of the Sertão.

Common Themes

This brief review of the main production systems has identified several common tendencies in the recent transformation of Northeastern agriculture. Yet the speed and intensity of these changes have been uneven and some production systems and forms of production have been less affected than others. In the Sertão, for example, the livestock/cotton/food crops system, despite the advance of **pecuarização**, is still characterized by "internal" peasantries organized under non-capitalist production relations by traditional agrarian and merchant capitals. On the other hand, the continuing predominance of family-labour units in the Agreste hides increasing economic specialization and social differentiation, creating a numerically large group of poor producers on sub-family farms whose reproduction increasingly depends on off-farm employment. The process of **pecuarização** is the most pervasive tendency behind this slow, uneven transformation of the social organization of production. In the precarious conditions of rainfed agriculture which prevail in large areas of the Northeast, **pecuarização** is not simply the characteristic expression of agricultural modernization: it is virtually the only viable form of technological innovation. Elsewhere in

Brazil, modernization in the 1960s and 1970s was associated with the close integration of new crops (soybeans, oranges), higher-yielding varieties (corn), and inter-related innovations in mechanical, chemical and genetic technologies. No such proven integrated technology-crop mix "packages" have been developed for the social and agronomic conditions of rainfed agriculture in the semi-arid Northeast.

Pecuarização is advancing at the expense of commercial crops, notably cotton, (6) and food staples —not only in production systems where livestock activities already were significant but also in traditionally more diversified, mixed cropping systems. It is having a devastating effect on rural employment, leading to the expulsion of the "internal" peasantries of **moradores**, sharecroppers and small tenants and reducing the supply of seasonal wage employment and short-term tenancies vital to the reproduction of independent "external" peasantries. **Pecuarização** similarly has been the main factor behind the closure of the agricultural frontier in the Middle North, restricting small producers' access to land.

Greater specialization in livestock production has been accompanied by the emergence elsewhere of specialized small-scale commodity producers, often capitalized, in areas of food production as the result of greater access to credit under special agricultural development programmes and the expansion of agroindustry. This trend has led to greater social differentiation among family-labour producers, for example, in humid micro-regions and irrigated areas, and increased the seasonality and casualization of rural employment. All these variations on the theme of modernization and the intensification of commodity relations reflect the emergence of new forms of articulation between agricultural production and different branches of capital. Traditional agrarian and merchant capitals have been complemented and superseded by the entry of modern commercial, finance, and agroindustrial capitals attracted by the subsidies and opportunities for accumulation created by the State. As a result, social relations in agriculture have become more diversified and heterogeneous, marked by the coexistence of various forms of production, some expanding in number, others in decline. This can be seen, for example, within family-labour agriculture where the growth of specialized, capitalized units in articulation with modern commercial and agroindustrial capitals is in contrast to the increasing precariousness of "internal" peasantries and the large contingent of small-scale producers on sub-family farms, which remain outside the modernization process. These changes in family-labour agriculture, whether "internal" or "external" to the **latifúndio**, are reflected directly in the increasing importance of temporary

workers in all the main production systems. Proletarianization, either as permanent exodus or seasonal migration and temporary work, is the counterpart to **peculiarização** and the greater capitalization of production.

The Northeast is thus by no means "static". The expansion of the sugar complex within a strong incentive framework, the availability of cheap capital to increase livestock production, and agricultural development programmes primarily benefiting a minority of relatively small-scale producers with the resources to move into intensive, higher-value production, have all contributed to a process of internal transformation belying the image of the agricultural Northeast as a sort of museum of archaic forms. However, it should be noted that for the large majority of the rural poor, these changes are happening to them. New opportunities for production and profit are being grasped by others in a fashion often **reducing** the agricultural opportunities for the mass of small-scale producers and the landless.

The limited success of the poor in changing their condition in a process of general change is in part attributable to the sort of institutional factors addressed in Chapter 4. However, it must be emphasized that the condition of the poor is very much a reflection of the land tenure system referred to above. An enormous group has no secure access to land. This elementary factor puts into question the likelihood of any fundamental improvement in their situation as immediate producers. In a certain sense, the poor have been occupying a "space" that is largely **residual**. The poor (as small-scale producers) have persisted where modernization has not proceeded. They occupy the spaces where there is no immediate return to the capitalization of production —where there is a need for a large mass of cheap temporary labour and where the opportunity cost of occupation of land by various types of tenant is minimal. The precariousness of the situation of the "traditional" smallholder population has become very clear in the last two decades as government policy has affected relative prices (of inputs and output) and changed the interest in land use among the great proprietors —leading to expulsion of a type of peasantry and pressure upon the domestic economy of many others.

The possible benefits of future modernization must be placed firmly within the context of the tenure system. From the perspective of the smallholder, particularly the smallholder without property, agricultural development is a two-edged sword: on the one hand, risk reduction and

improved productivity may offer the prospect of increased income from agriculture; on the other, the prevailing system of property relations determines that perhaps the mass of smallholders would not directly benefit—that they may, indeed, suffer as large-scale capital expands to exploit new opportunities (as it did in an explosive fashion in the Cerrado once viable means—which have been largely inaccessible to smallholders because of capital and/or land requirements—of exploiting the region's soils became available). The potential dangers posed by the expansion of large-scale production in the Northeast have been vividly demonstrated in the Middle-North. The fact is that rural poverty in the Northeast is not principally caused by agronomic factors, and, indeed, there are many ways that improvement in means of exploiting the natural resources of the region may act to the detriment of the poor. The basic problem of poverty in the Northeast is a social one of access to resources—and not poor soils or poor rainfall. The problem of the Northeast has often been represented in terms of drought. For the poor, however, it is basically lack of access to land which, *Inter alia*, inhibits the use of natural resources to minimize the impact of drought.

Throughout the 1960s and 1970s the response of the poor of the Northeast to their conditions was to leave in huge migratory waves. While the conditions of urban development certainly placed limits on the development of traditional food crop agriculture in the Northeast, urban employment also provided an alternative for many. The opportunities of the 1980s may be different. Migration has declined, and the cities show a reduced capacity to absorb new contingents. The result has been a rapid increase in the number of marginal agricultural units in the Northeast. The downturn in the larger economy presents opportunities as well as challenges. The increased cost of capital will slow down the rate of large-scale expansion, and there is some possibility for improved returns for food crop producers. The land tenure system is an obstacle to the realization of any stable opportunity for a very large number of the rural poor. There are, however, other factors involving institutional services, development policy, etc. These will be addressed in Chapter 4 against the background of a brief analysis of the physical production systems within which the poor are typically inserted.

NOTES CHAPTER 3.

- 1) Two other concepts of the "Northeast" are sometimes used. The "drought polygon" (*polígono das secas*), used by the National Department for Anti-Drought Works (DNOCS), covers the most drought-prone areas of the Northeast, including areas in the state of Minas Gerais; and has a land area of 1.8 million km². The second concept, adopted by the Superintendency for the Development of the Northeast (SUDENE), encompasses the IBGE definition plus the portion of Minas Gerais falling within the "drought polygon". It has a total land area of 2.1 million km². almost always less than 1,000 mm. The natural fertility of the soils is medium to low. The rural economy of the Agreste is dominated by mixed farming for the domestic market, as well as the raising of beef and dairy cattle.
 - 2) Particularly severe droughts can also affect the Agreste and even the Zona da Mata.
 - 3) It should be noted that "renters" and "sharecroppers" are not "pure" categories inasmuch as renting and sharecropping may be combined with working of "own" land.
 - 4) For a detailed discussion of these data in relation to the impact of drought-relief works, etc., see Appendix 1.
 - 5) This is an important defence against possible inclusion in land reform areas.
 - 6) The cotton complex of the Northeast has its own particular problems, including low productivity, infestation, and weak competitive position vis-a-vis, for example, producers in São Paulo.
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CHAPTER 4
SMALLHOLDER AGRICULTURE
IN THE NORTHEAST

INTRODUCTION

The previous chapter dwelled upon the social relations of production within which the rural poor of the Northeast are inserted, particularly upon access to land and off-farm labour opportunities. Whatever the level of purely agricultural development of this group, the framework of productive relations would dictate low incomes. However, the agriculture of the poor of the region is **not** well developed. Yields in basic food crops in the Northeast are low and have been declining, while diversification into potentially higher-yielding crops and varieties has been limited—at least among the rural poor. Part of this agricultural poverty reflects the limitations of the natural resource base. However, this is only one factor in the situation. Existing natural resources are not being exploited to the full extent of their potential (which is not necessarily great). This underexploitation is very much a social phenomenon. It reflects the pattern of land tenure, which shapes not only the amount and quality of land available to the poor as direct independent producers, but also the types of use that land can be put to by the poor. It further reflects the pattern of provision of agricultural support services (research, extension, infrastructural investment, credit) which, as argued in Chapter 2, have not in general been oriented to the requirements of small-scale farm operators. In addition to addressing typical patterns of smallholder production in the Northeast, this chapter will evaluate smallholder access to support services relative to the overall provision of sectoral assistance. Many of the services provided to the rural poor have been channelled through special programmes and projects. These will be reviewed separately in Chapter 5.

Smallholder Production Systems of the Northeast

Small farmer rainfed production systems in the Northeast are extremely diverse, with such diversity increasing in proportion to increasing rainfall, variability in dependable rainfall over the growing season, and soil fertility (albeit this is not the critical constraint in the region). Significant social factors include access to markets, labour availability and capital availability.

A common factor running through all production systems is the constraint on area potentially cultivable exercised by the prevailing source of energy input into ground preparation and weeding. The area weeded manually by one man in rainfed agriculture is between 1.5 and 2 ha, independent of the method of land preparation. This rises to 10-20 ha using animal traction for inter-row cultivation. For practical purposes, however, the mass of the rural poor operating within the framework of the "traditional" nuclear family labour force must be considered to be cultivating no more than 2 ha of seasonal crops, indicating that the farm size of the lowest strata of the rural population is broadly consistent (leaving aside the issue of necessary fallow periods) with the area cultivable without the assistance of capital inputs such as draught animals or power tillers (the latter being little used in the Northeast).

On the basis of typical annual rainfall data nine major smallholder agricultural production systems can be identified (see Table 23), varying with crop mix and yields. Details on these systems are presented in Appendix 4.

Perhaps the highest natural potential area of the Northeast is represented by the **Atlantic Littoral**, characterized by relatively high rainfall and fertile soils. For self-evident reasons, this has been an area of extremely limited smallholder development (with the possible exception of the "farmer" systems of cocoa production), being dominated by large-scale production of sugar. Such smallholder production as does exist involves production of bananas, maize and beans in consortiation, (1) yam and cassava. The area devoted to each in a "typical" configuration of 1.6 ha under crops would be 0.3 ha of banana (yielding 9,000 kg/ha), 0.5 ha of maize (480 kg/ha) and beans (480 kg/ha), 0.4 ha of yam (10,000 kg/ha), and 0.4 ha of cassava (9,500 kg/ha). An additional 1.5 ha might be held under pasture for draught animals.

Table 23. Smallholder Production Systems and Rainfall Zones.

Region	Approximate Typical Annual Rainfall (mm)
Atlantic Littoral	1 200-1 600 +
North Littoral	1 000-1 400
Eastern Agreste	800-1 000
Western Agreste	800-1 000 +
Semi-Arid Sertão	600 - 700
Arid Sertão	Below 600
Humid Hills	800-1 200
Sub-Humid Pre-Amazon Region	1 200-1 800
Humid Amazon Region	1 800-2 000

Source: Mission estimates.

The **North Littoral** presents more of the "classic" features of the smallholder systems of the Northeast. Soils are of generally poor fertility (subject to leaching), and are typically fallowed to regain fertility. The principal farming system for small farmers is consortiation of cassava, corn and cowpea within a predominantly slash-and-burn agriculture, with hand planting between the stumps. Tree crops are not widespread. Corn and cowpeas are interplanted only during the first year, with cassava harvested after 12-18 months, depending principally on market conditions. Tree cotton is grown in consortiation in some areas of the Littoral, a practice which has entered decline with boll-weevil depredations. The fallow break which follows cultivation varies from 3 to 10 years depending mainly on the size of the property. Planting is normally totally at random, land preparation is minimal, and no fertilizer is used.

Yields in this system are extremely low, with the cassava/maize/cowpea consortiation rendering 7,000 kg/ha, 400 kg/ha, and 200 kg/ha, respectively. Maize and cowpea yields are slightly higher (450 kg/ha and 300 kg/ha) when grown in more limited consortiation. Few cattle are kept, partly because of cost of fencing and fear of crop damage. The system demonstrates some of the basic tensions of much of agriculture in the Northeast: leached soils requiring long fallow periods come under increasing pressure from population growth/farm shrinkage reducing fallow periods, with the possibility of fertilizer use being limited by the risks implicit in an erratic rainfall system.

The **Eastern Agreste** (running parallel to the coast intermediate between the Littoral and the Sertao) holds a far greater number of small farmers and, as was indicated in Chapter 3, exhibits considerable agricultural diversity both in crops and farm types. Tree crops, vegetables, and dairy production have been exploited successfully by capitalized small-scale producers —albeit there is also significant cash crop production by more "traditional" producers. A typical 2 ha crop area would involve approximately 0.4 ha in a consortiation of annual cotton, maize and common beans; 1.3 ha in a consortiation of cassava, maize and common beans; 0.1 ha in bananas; and 0.2 ha in cassava. Yields are somewhat lower than in the Littoral (at between 240 and 300 kg/ha for maize, 240 kg/ha for common beans, and 7,500 to 9,000 kg/ha for cassava —depending upon the consortiation), albeit this is partly offset by greater livestock production. The **Western Agreste** (encompassing a large area of Central Piaui and part of Western Bahia) has a much smaller smallholder population, and has realized a somewhat lower level of diversification at the small farmer level, among whom the consortiations of cassava/cowpea and maize/cowpea are dominant. Yields are equally low, with the exception of maize, yields of which are approximately 700 kg/ha, twice the level of the Eastern Agreste.

It must be understood that the above figures are of necessity very approximate, and are relevant for "unimproved" production units. However, they indicate very clearly the agricultural basis of extreme poverty in regions which contain, in fact, far from the worst conditions of smallholder production. Given the small areas cultivated, and the extremely low yields obtained, for the large majority of farmers on-farm production and income can ensure, at best, only minimal standards of nutrition and pitiable levels of cash income —necessitating recourse to off-farm labour to escape critical conditions of poverty. The limits of the smallholder farm operations in providing even the minimal conditions of household survival become all the more clear when it is recalled that 68% of the population live beneath the absolute poverty line, **in spite of** massive recourse to off-farm labour to supplement on-farm income.

The strong aversion to risk of a population living in such marginal conditions of survival can be well appreciated, highlighting the problems of "easy" development recommendations such as extension of area worked through employment of animal traction and application of fertilizers —both of which necessitate major outlays of scarce capital in a rainfall regime offering the constant threat of partial or total crop failure. It can also be understood that the mass of holdings beneath 2 ha must be

definitely considered sub-marginal. Not only is the current income to be derived from such a unit extremely low, but constant land utilization in prevalent soil conditions can only lead to progressive loss of fertility undermining future income—a factor which may have contributed to the persistent decline of yields in food crops in the region. Under such conditions landholdings in excess of 10 ha (up to 70 or 80 ha in many areas) can by no means be considered the basis of a real income substantially in excess of absolute poverty. On the contrary, any holding of 50-100 ha in unimproved circumstances may simply mark the possibility of poverty based on independent farming (including significant recourse to low productivity livestock activities), while holdings below 10 ha mark the existence of a poor household which is principally dependent upon off-farm sale of labour, but which is also engaged in on-farm production for the purpose of **supplementing** income. The vast number of people within this latter category reveals the social logic of dependence arising from the prevailing system of land tenure, as well as the possibly devastating consequences of the sort of changes in large-scale productive processes outlined in Chapter 3.

Conditions for crop production in the Littoral and Agreste are generally poor. However, they are considerably superior to conditions in the Sertao, which encompasses the mass of the rural population of the Northeast, at extremely low levels of population density. The Sertao itself is divided into semi-arid and arid zones. The **Semi-Arid Sertao** extends in a vast arc from the north coast of Rio Grande do Norte through the interiors of Piauí, Ceará, Pernambuco, Alagoas, Sergipe and Bahia, extending slightly into the north-central parts of Minas Gerais. There are significant areas of fertile soils spread irregularly over the region, the decisive factor in crop yields being rainfall, which is both irregular and sparse (and occasionally falling in violent thunderstorms giving rise to serious erosion). Total rainfall is between 500 and 750 mm/year.

As may be imagined under such conditions, the principal economic activity of the region is semi-extensive and extensive livestock production—involving sheep and mixed beef/dairy cattle in higher rainfall areas, and goats and beef cattle in drier areas. Smallholder producers, however, have limited prospects for heavy dependence upon livestock (not least because of low access to land), which principally function as a "savings bank", with milk/cheese for consumption or sale, as a by-product. The farm model presented (in Appendix 4) for subsistence production in the semi-arid zone (which involves and extended family providing five adult labour equivalents) indicates 10 ha under crops. The maize/cowpea

consortiation is dominant, covering 6 ha, followed by cassava/cowpea (2 ha) and castor bean/cowpea (2 ha). Yields are strikingly low —maize 200 kg/ha, cowpea 200-250 kg/ha, cassava 4,500-5,000 kg/ha. In this context, it is evident that even a 70 ha operation (the farm model portrayed) would be incapable of satisfying the consumption requirements of the labour force, while production from a 2 ha holding, for example, would be insignificant and extremely insecure (offering not even the minimal security extended by livestock holdings).

The **Arid Sertao** presents even less favourable conditions for crop production. In this area, extending from north-west Bahia through central Pernambuco, Paraíba and Rio Grande do Norte, rainfall is typically less than 500 mm/year. Although the area is suited only to extensive livestock production of goats and beef cattle, smallholders do produce food crops for domestic consumption —typically maize/cowpea and cassava. Yields are pitifully low: 180 kg/ha for maize, 150 kg/ha for cowpea, and 3,000 kg/ha for cassava. Livestock are a much more important component of the farm economy, albeit productivity on (typically) unimproved pasture is extremely low. It is evident that under unimproved crop and livestock production conditions, holdings of 100 ha can be considered sub-marginal in this zone. The situation is different in the **Humid Hills** scattered throughout the Northeast. Here higher rainfall (800-1,200 mm/year) allows for a much more diversified crop mix (including tree crops, even coffee) as well as mixed livestock enterprises exploiting greater feed availability.

Better crop production conditions are also encountered on a larger scale in the **Sub-Humid Pre-Amazon Region**, principally embracing the northwest corner of Piauí and the southwest half of Maranhão. Here soils are generally infertile, but rainfall is considerably higher —at 1,200-1,600 mm/year. The region is suited to cassava, maize, upland rice, cowpeas, beans and cotton (at the end of the rains), irrigated rice with double cropping, rubber, bananas (in bottom lands), mangoes and other fruit crops which withstand a five month dry season. A broad range of livestock production is also made possible by the feed resources of the region.

In this area input use is minimal (albeit rainfed rice may receive insecticide applications given the low risk associated with production), and fallow is an important element of the farm-system, both for fertility recuperation and to smother weeds. Yields are generally higher than in the areas discussed above. Maize yields 500 kg/ha (1,200 kg/ha in pure stand), manioc (18 month) yields 12,000 kg/ha (and is a particularly

important smallholder crop), cowpea yields 700 kg/ha (in pure stand), while rainfed rice may yield between 800 and 1,200 kg/ha. The greater agricultural productivity of the zone (even under unimproved conditions) is, however, offset by restricted access to land, a phenomenon characteristic of all zones of higher potential. Much land is occupied by larger squatters, who are unwilling to allow others to plant on it. A common recourse to supplement the correspondingly limited on-farm income is vegetable extraction (e.g., collection of babassu nuts).

Finally, the **Humid Amazon Region** (covering the whole of north-west Maranhao) has become quite an important area of smallholder concentration, with a high incidence of landlessness and near landlessness. In this area (with a typical rainfall of 1,600-2,00 mm/year) cassava is the chief subsistence crop, with cowpeas and upland rice on poorer soils, and maize on more fertile soils. Perennial tropical crops grow well. While production practices are certainly unimproved, the major constraint—for the poor at least—is land availability.

It is evident that smallholder, rainfed agriculture in the Northeast is quite diverse—corresponding to soil fertility and rainfall patterns. The major areas of concentration of the agricultural population (the Agreste and the Sertao) present extremely low yields for food crops—forcing, in the Sertao, greater dependence upon low productivity livestock. Everywhere restricted access to land presents a major obstacle to gaining even a subsistence income. The large population with holdings (not necessarily owned by them) under 2 ha are clearly sub-marginal agricultural enterprises by any measure. But it would be a mistake to view possession of larger holdings as the key to greater wealth under present circumstances.

The problem of soil fertility and leaching is pronounced in most major production zones, indicating that stable production units must effectively control areas far in excess of the amount of land cultivable in any given year. The issue of soil fertility must emerge as an increasingly important problem as pressures on the area of land available to smallholders rise (e.g., in response to the expansion of large scale cattle production). In many zones increasing fertility through fertilizer application is hardly viable given prevailing rainfall characteristics. Extending the area under cultivation encounters its own limits: on the one hand, many smallholders simply do not have access to unused land; on the other, application of animal and mechanical traction will involve investment in de-stumping, for

example, leading to continued use of the same land, adding to the problem of soil fertility.

Natural conditions in most areas of the Northeast are not propitious for gaining even a subsistence income from smallholdings. Nonetheless, it is evident that the existing potential has not been exhausted. There are productivity gains (which would not in all cases yield financially positive results) to be had from improved varieties of seeds and clean cultivars in existing crops, from crop substitution (particularly in grain crops in the Sertao), from pasture improvement, from development of tree crops, and from judicious applications of fertilizers and insecticides in some areas. These possibilities (which will be discussed briefly in Chapter 6, and which are analyzed in detail in Appendix 4) have not been exploited on a large scale. In part this is because the system of land tenure prevents, for many, any significant investment in the land (e.g., tree crops, improved pasture). But part of the responsibility must also be attributed to the lack of services that would facilitate smallholder entry into somewhat higher productivity systems. It is here that the impact of past government sectoral policy can be clearly perceived in the Northeast (in addition to the expansion of the large-scale cattle production complex and the revitalization of the sugar zone). The lack of attention paid to food crop development in the context of heavy emphasis upon exports led, until very recently, to the **extreme** underdevelopment of basic agricultural services to the domestic food crop producers of Brazil—particularly to small-scale producers. This neglect has fallen particularly heavily upon the Northeast, precisely because this represents the point of main concentration of small-scale food producers. Although this is not the sole determinant of the smallholder condition in the Northeast (primacy among causal factors being attributable to the land tenure system) it has contributed to a situation in which perhaps the majority of farm operations are incapable of sustaining their occupants, and are incapable of providing a significant and consistent food crop surplus to regional and national markets.

Basic Agricultural Support Activities in the Northeast

Factors potentially affecting smallholder production and farm income in the Northeast include (apart from natural conditions and the level of household labour supply) access to land, access to water, dissemination of improved technologies, access to improved inputs, access to the means of acquiring inputs (i.e., credit), and access to markets. Government activities are actually or potentially relevant to all of these factors—either

in "general" and regular form, or under the rubric of special agricultural development projects and programmes. Much attention to smallholder producers has taken the form of special interventions. However, it is critical that these activities be put in the context of overall government interventions in the region inasmuch as many of these general (or non-smallholder specific) activities have actually functioned in a way to more than offset the possible advantages to smallholders brought by special programmes.

Access to land. It has long been recognized that one of the crucial factors determining the extent of poverty in the rural areas of the Northeast is the extremely limited access to land on the part of the large majority of the population. Data presented in Chapter 3 demonstrate that the typical smallholder access to land is very modest, which determines (on the basis of prevailing productivity levels discussed above) that the mass of the rural population be extremely poor in terms of their on-farm incomes. The predominant social fact of recent agricultural development in the Northeast has been the maintenance, and perhaps even the reduction, of this limited access. Government interventions since the early 1970s have contributed to this fact both indirectly and directly.

Indirectly, the availability of substantial amounts of subsidized credit to large-scale operators and the granting of substantial tax concessions to investment in the agricultural sector have led to the expulsion of small scale producers from their holdings and to constant speculative increases in land prices effectively driving small-scale operators from the land market (in this regard, it is illuminating that the largest increase in the number of smallholders between 1980 and 1985 was in the "squatter" category). Directly, there has been little attempt to inhibit claims over very large blocks of land by actual or would-be large-scale operators in "frontier" areas, just as there has been no consistent defence of established small-scale claimants against dispossession by socially more influential elements. In effect, there has been no major attempt to promote or defend the interests of smallholders in the process of effective closure of the Brazilian agricultural frontier—a process which has left vast areas at a very low level of economic utilization, but which has left few areas (except, perhaps, the most remote) without an actual or presumptive (typically large-scale) proprietor.

It is against this background of actual smallholder displacement and closure of opportunities for re-establishment or expansion affecting immense areas of land that the real extent of alleviation of land pressure

on smallholders through explicit Land Reform should be evaluated. The New Republic inaugurated in March 1985 promised the first serious attempt to address the question of land tenure in Brazilian history. The National Agrarian Reform Plan established the objective of settling 630,000 landless families on some 18.9 million ha between 1985 and 1989 —of which some 45% were to be in the Northeast. By the end of 1988, however, only 4 million ha had been expropriated in the entire country. In effect, the Land Reform process encountered major political obstacles, and by 1988 had, after only three years of life and five Ministers at the head of the Ministry of Agrarian Reform and Development (MIRAD), come to a halt. (2)

For the vast majority of the smallholder population, therefore, Agrarian Reform has been but a distant rumour and (however irrationally) sustaining hope rather than a fact. For the large number of poor, small-scale "proprietors", of course, it offered nothing at all. Moreover, those that were resettled were not always placed in advantageous circumstances, frequently being deprived of the minimum support services required to establish viable farm and household conditions. It is unlikely that Land Reform activities will offer any relief to smallholders in the future. The MIRAD itself is without funding to engage significant new activities, and the scope of future operations has been drastically revised on a *de facto* basis from an attempt to address the general problem of landlessness to a "fire-fighting" exercise of attempting to reduce tensions in limited areas of acute (and organized) conflict over land rights. This paralysis of Land Reform is not likely to improve in the future. On the contrary, the new Federal Constitution so limits areas eligible for expropriation (on the basis of a liberal definition of the "productive property" defence), that major new initiatives will be effectively impossible where landowners are actively opposed to them.

The recent history of government intervention in relation to the distribution of land rights is thus contradictory. On the one hand, it has erected no obstacle (and, indeed, gave incentives) to large-scale occupation of the frontier (see Appendix 5) and has economically motivated the displacement of smallholders from established areas; on the other, it has attempted Land Reform. The dimensions of these two "faces", however, are of completely different orders of magnitude. The extent of Land Reform has been minimal; that of expulsion and appropriation of the frontier areas, enormous. The implications are very far-reaching. In the past the appalling challenge of raising the agricultural income of the rural poor of the Northeast has always been (even if only

implicitly) tempered by a vision of the employment of the "frontier" as a zone of smallholder re-establishment, or of land reform as expanding the "internal" smallholder zone. For all practical purposes there is no more frontier, and the road to Land Reform seems closed. Given the existing tenure and agronomic conditions this necessarily involves abandonment of any realistic idea of the reformation of the majority of the rural poor in the guise of a viable independent peasantry, and a realization that for most of the rural poor any agricultural improvement may help alleviate grinding poverty and social dependence, but is unlikely to abolish either. It was precisely the realization of the narrow limits of possible opportunities within independent smallholder production that led to the dramatic rural exodus in the Northeast in the 1970s.

Access to water. Access to water is clearly a critical determinant of agricultural productivity in most areas of the Northeast. Rainfall is typically insufficient or erratic, or both. Inadequate and poorly spaced rainfall inhibits plant survival and development, and also renders economically problematic application of means of increasing soil fertility—a critical issue where the tenure system bars extensive production to many. Irrigation is a major element of the government's agricultural development strategy for the Northeast. With its high-input technology, agro-industrial linkages and corporate management, irrigation is presented as the epitome of modern agriculture—in contrast to rainfed systems in the semi-arid zones, which are frequently implicitly (and explicitly) condemned to remain low input, low productivity systems since, it is argued, modernization is not economically feasible.

Only from the beginning of the 1970s did irrigation appear as an attractive option in agricultural development in Brazil. In the whole of Brazil there were only 0.4 million ha under irrigation in 1960, and 0.5 million ha in 1970. In the last two decades expansion has been rapid, with the area rising to 1.0 million ha in 1980, and 2.3 million ha in 1988. The first detailed study of irrigation potential in the **Northeast** was undertaken by the Irrigation Executive Group for Agricultural Development (GEIDA) in 1968-70, which led to the formulation of the Multiyear Irrigation Programme (PPI) in 1971 (subsequently integrated into the National Irrigation and Development Plans). Target figures for irrigation development were 40,000 ha by 1974, a figure raised to 224,000 in the Second National Development Plan for the period 1974-79. In fact, only 25,000 ha were irrigated in that period—a figure which subsequently rose rapidly to some 260,000 ha by 1988.

In spite of the immense smallholder population of the Northeast, and the Sertao in particular, direct smallholder participation in irrigated production has been extremely limited. The original Plan for 1974-79 envisaged the settlement of 31,200 colonists on the area to be brought under irrigated cultivation. In fact, only 5,400 colonists were settled. Neither did the rapid rise in the irrigated area in the 1980s bring a commensurate increase in the number of smallholders involved. By mid-decade only 7,170 colonists had been settled in new irrigation areas, an entirely negligible percentage of the smallholder population of the semi-arid and arid zones. Part of the explanation for this phenomenon is that irrigation development has been predominantly under private auspices, which have received very substantial public support in terms of subsidized credit, risible or non-existent cost recovery for major public infrastructures (e.g., dams regulating river depth) making irrigation possible, electrification and technical services. Only 27% of the 260,000 ha under irrigation are in public projects (although, it must be repeated, a large part of the financing for "private" activities is furnished by the government through a wide variety of mechanisms). However, smallholder participation is also limited even within public projects. In the mid-São Francisco Valley, for example, where some 60,000 ha are irrigated, 26,300 ha are in the public sector, which, in turn, are divided between 180 private companies controlling 16,700 ha and 1,331 colonists on 9,600 ha. The current Northeast Irrigation Programme (PROINE) foresees an expansion of the irrigated area by 1,050,000 ha in 1986-90. This will be implemented mainly by private enterprises (600,000 ha), followed by federal agencies (411,000 ha), mainly the Sao Francisco Valley Development Company (CODEVASF) and DNOCS.

The major irrigation initiative in the Northeast thus very largely excludes smallholders as direct producers, although it is expected that the irrigation perimeters will create substantial demand for labour in the area —i.e., irrigation development is conceived, as far as the smallholder is concerned, as part of the process of proletarianization of the rural labour force and its integration into larger-scale capitalist production. The few irrigated areas for smallholders, moreover, do not provide a very convincing model for more extensive development in the event that national policy took a turn towards allowing smallholders a greater share of the benefits of the huge public investments (direct and indirect) in the irrigation sector.

In the CODEVASF areas, for example, the intention is not to absorb the maximum number of smallholders as independent producers, but to

contribute to the modernization of the sector, transforming a relatively small number of peasants into capitalized farmers offering employment to the impoverished peripheral peasantry —a policy materialized in distribution of holdings of 7-8 ha, far in excess of the labour capabilities of the peasant household. Even these schemes, however, suffer from chronic difficulties. On the one hand, real development costs are extremely high —at US\$ 6,500-7,500/ha, excluding the cost of social infrastructure (housing, schools, etc.). On the other hand, output levels have been disappointing, with much less than ideal levels of water use, cropping intensity, and crop mix (linked to problems of credit, marketing, and technical assistance). There is considerable variation in the performance of smallholder-oriented irrigation schemes. A survey of seven DNOCS irrigation schemes, however, indicated that average net household income varied between US\$ 151 and US\$ 696 in 1980, with an overall mean of US\$ 360. The returns to the smallholder are thus entirely incommensurate with the social investment involved in public projects. It is true that these schemes generate demand for employment, but the quality of this employment is discouraging. Agricultural modernization in the São Francisco region, as elsewhere in Brazil, is associated with the emergence of *bolas firlas*, casual employment practices, low wages and the growth of *favelas* in rural towns.

Table 24. Participation of Irrigated Agriculture in Total Crop Production in the Northeast (at 1980 prices).

	1970	1975	1980
Total value of agricultural production (TV1)*	80.1	137.4	180.2
Average value per hectare**	7.8	12.5	12.7
Total value of irrigated production (TV2)*	18.0	40.7	66.4
Average value per hectare of irrigated production**	155.0	249.1	254.0
TV2 as % of TV1	22.4	29.6	36.8

* In Cz\$ billions

** In Cz\$ thousands

Source: de Carvalho, 1988.

It is evident that just as the smallholder has not benefited significantly from exploitation of the agricultural frontier (thus limiting the possibility of recourse to the **extensive** route of output expansion) he has not benefited significantly from the thrust towards **Intensive** irrigation development (indeed, it is almost certain that this development has involved the displacement of more producers than have been reintegrated as colonists). The mass of the smallholder population has been isolated from participation in those activities substantially expanding the horizons of large-scale capitalized producers. The significance of irrigation development, however, has not only been the virtual exclusion of the smallholder (at least from the large-scale public and private schemes), but the further marginalization of the rainfed agriculture from which the overwhelming majority of smallholders draw their agricultural sustenance. In effect, the successful drive towards irrigation (and the rapid rise in the percentage of the value of crops output derived from irrigated agriculture, which rose from 22.4% in 1970 to 36.8% in 1980 —see Table 24) has contributed to a weakening of the tentative moves towards improvement of rainfed systems, making more substantial the vision of modern and capitalized agriculture as the answer to the supply of foodstuffs —a vision which neglects to provide an answer to the severe poverty of the mass of producers of the region, and which fails to take into account the true economics of the different systems of production in a context of massive and manifold subsidization of agricultural modernization.

Table 25. Resources and Outreach of the EMBRATER System.

Year	Municipalities	Technical Personnel	Total Personnel	Producers Assisted
1960	280	565	912	13 337
1965	831	1 236	2 261	136 248
1970	1 548	2 566	4 569	324 831
1975	2 581	5 687	9 776	378 464
1980	3 076	10 339	18 214	1 137 947
1985	3 162	12 856	22 454	1 162 361
1986	3 245	13 198	23 139	1 142 914

Source: EMBRATER.

Extension and Research Services. The level of productivity of the few, and largely unimproved, natural resources available to the rural poor in the Northeast is affected by the level of provision of relevant technical services to agricultural activities. Extension activities in Brazil acquired an organized national dimension in 1956 under the auspices of the Brazilian Association for Credit and Rural Assistance (ABCAR), bringing together the Association for Credit and Rural Assistance (ACAR) and the Northeast Association for Credit and Rural Assistance (ANCAR). Although the principal organizational base was at the State level, Federal financing became increasingly important in agricultural extension—the major regular channel for which has been the Federal Technical Assistance and Rural Extension Agency (EMBRATER), formed in 1974 in connection with the transformation of State organizations (excluding the São Paulo extension service) into State Technical Assistance and Rural Extension Agencies (EMATERs). As indicated in Table 25, the growth of the extension system has been extremely strong since the mid-1960s. The number of municipalities served has quadrupled (to cover about 90% outside of São Paulo), and the number of producers receiving assistance has increased ten-fold. By 1985 there was an average of one extension technician per 432 agricultural establishments outside of São Paulo.

Table 26. Percentage of Producers Assisted by EMBRATER System.

	1972	1975	1979	1982	1983
North	5	5	19	17	14
Northeast	7	4	17	18	15
Centre-West	8	7	15	32	28
Southeast	20	22	30	39	22
South	9	11	25	37	37
BRAZIL	9	8	20	26	22

Source: Ricardo Pinto Ribeiro, "O Sistema Brasileiro de Assistência Técnica e Extensão Rural: Análise Retrospectiva", EMBRATER, 1985.

In spite of the very significant increase in the scope and absolute resources of the extension services, it is important to note both that these have been unequally developed among regions and that they still reach a limited percentage of producers. Table 26 indicates that the poorest region (the Northeast) has the lowest level of extension coverage (next to the North, which is a special case), with the percentage of producers

receiving assistance being substantially less than half the percentage in the South. In some measure this must be attributable to the limited financial resources available to State governments in the Northeast (although this has been augmented by significant Federal and international assistance); in part, it must be attributed to the extraordinary concentration of a mass of small-scale producers in the region.

Although these data give some indication of limited service in the Northeast, suggesting that the large majority of all producers in the region receive no significant technical assistance whatsoever, they do not reveal the structural biases in the system that have distorted services to smallholders. Until 1982 there was a rigorous formal connection between credit and producer-extension linkages, i.e., applications for subsidized credit were obliged to be accompanied by production plans elaborated by extension workers (including private suppliers), and plan implementation had to receive technical assistance—in exchange for which the extension offered received 2% of the value of the loan. The impact of this arrangement upon actual distribution of extension services can be easily imagined, i.e., neglect of those farmers (the majority) who did not receive credit, and concentration upon those receiving larger loans (notwithstanding an explicit policy of increasing service to smallholders from 1979). When combined with the consequences of concentration of social power in the rural areas (particularly of the Northeast) for distribution of public resources, the level of effective service to the mass of marginal producers in the Northeast must be considered to have been extraordinarily low.

While the general background of extension development is not encouraging from the smallholder perspective, there have been attempts in recent years to improve support for smallholders—particularly since 1985. The central coordinating body (EMBRATER) has recently laid the highest emphasis upon serving the less privileged elements of the rural population. However, this has brought severe problems. In particular, the role of the extension workers has been implicitly re-defined to confront the whole range of obstacles facing producers, rather than strictly agronomic issues. Thus, heavy emphasis has recently been placed upon extension agent involvement in the social organization of the poor and support for Land Reform. While it is important that the **social** factors underlying rural poverty be addressed by **someone**, the involvement of the extension service has rendered results that are not uniformly positive. In effect, there has been a neglect of the technical agronomic role of extension agents (which although not a sufficient condition for increasing smallholder

output and income, is certainly necessary), and the entire extension service has acquired a non-agricultural complexion. The emergence of a socially more active role for extension agents and extension work has dictated the increasing interest and involvement of non-rural groups seeking to increase their visibility and influence among the rural poor through an active presence in the affairs of the extension services. In addition to the problem arising from assigning a "progressive" social role to agents who on a day-to-day basis have to confront (and cooperate with) rather less progressive structures of local power, the internal politicization of the extension services has added to institutional instability, and has contributed to extremely high levels of staff "turn-over" —as well as persistent allegations of distribution of posts and resources on other than technical criteria.

In some ways the emergence of extension as "social mobilizer" is an important positive step: it establishes the grounds for a certain level of commitment to services to smallholders expressing the importance of the rural poor within a more democratic political regime. On another level, it is negative —it erodes attention to the purely technical role of the extension service, and it introduces pronounced uncertainty with regard to the continuity of activities. In effect, the level and types of extension activity have become immediately linked to the nature and composition of the public administration at the State level, making development of a long-term strategy extremely difficult. At least in the short term the situation is unlikely to improve. Particularly in the Northeast the federal government has made an extremely important contribution to financing the State extension agencies (EMATERS), with EMBRATER emerging as a conduit for extra-local funding of State level activities. As indicated in Chapter 1, there is major doubt about the future of this transfer from central government, bringing the issue of budgetary support directly back to the level of State politics. (3)

This brief discussion highlights a fundamental dimension of the smallholder-extension connection in the Northeast (as, indeed, in many other regions) —a basic production service is heavily dependent upon the policy of social groups who are not directly engaged in smallholder production (or agricultural production in any form). This makes possible an erratic supply of services, as well as a frequently tenuous relation between the services offered and the services actually required by producers. As long as such a relation persists it is difficult to envisage extension contributing significantly to smallholder production and income increases. A better level of service might be attained if smallholders were

to enjoy the same relation to technical assistance that larger producers have, i.e., a "buy-in" relationship in which technical assistance is acquired as and when required, essentially signifying a transfer of effective control over consumed extension activities to the producers themselves. It is conceivable that such a relation could evolve from more active participation of the smallholder population in the political process, acquiring a coherent position enabling them to demand consistent and relevant extension support. The immediate prospects for such a development, however, are not bright.

Thus far, then, the extension service in the Northeast have definitely not served the smallholder well (when at all) —a situation of *de facto* exclusion simply reproducing tendencies in land distribution and irrigation development. The problem here is not simply the availability of resources (albeit this may become an acute problem in the short and medium term), but control over them. The same issues are relevant in the area of research. Agricultural research in Brazil has definitely not been at the service of smallholders. At least until the end of the 1970s there was little attention paid to traditional domestic food crops. The problem was not the availability of funds for research (in fact, research expenditures were very substantial from the mid-1970s, as indicated in Chapter 2), but the **direction** of research, which understandably followed the overall sectoral policy priority given to export crops.

In the 1980s the general neglect of food crops has been considerably reduced. As in many other parts of the world, however, the relevance of much recent food crop oriented research to smallholders has been limited (quite apart from the inadequate delivery mechanism). Under the rubric of scale-neutral research, recommendations have been developed which reflect the large-scale, capital-intensive bias of general agricultural development policy with a consequent low level of relevance for small-scale, uncaptialized, frequently mixed smallholder production enterprises. Again as in the cases of extension, irrigation and land distribution, research has supported the major operators.

The **general** profile of research priorities and their relevance to smallholders is clear, albeit it is hoped that the major loan for (the so-called "EMBRAPA III") activities at the Brazilian Agricultural Research Company (EMBRAPA) under consideration by the World Bank will contribute to correcting the bias in the most important national research organization by virtue of the orientation of support to "resource poor" farmers. It would be incorrect, however, to conclude that there has been

no smallholder-oriented research in the Northeast, and that there exist no technical recommendations relevant to smallholder circumstances. There have been major activities developed at the EMBRAPA Centre of Agricultural Research for the Semi-Arid Tropics (CPATSA) and State level research organizations such as the Agricultural Research Institute of Pernambuco (IPA), and there are available research recommendations that might be implemented immediately within smallholder operations (see Appendix 4). There has been, however, a continuing problem of the **relevance** of much work ostensibly oriented to smallholders, and in this regard the research effort suffers from many of the problems of the extension service — i.e., a lack of concrete response to smallholder requirements arising from insufficient smallholder input into the research process.

Much the same could be said of the relations between peasants and research/extension activities in most parts of the world, although the extreme emphasis upon the "modern" farmer that prevailed in Brazil until the mid-1980s exaggerated the disarticulation. But just as there has been an attempt to direct extension more towards the small farmer, so there have been some attempts to develop connections between researchers and smallholders. The GRAPEP system initiated under the PAPP programme (see below) has made a suggestive attempt to link major research institutions (particularly CPATSA and IPA), state extension organizations (EMATER-BA and EMATER-PE), and producers in an ongoing dialogue on major practical issues requiring research intervention. Equally, IPA/EMATER-PE has been seriously engaged in in-depth surveys of farm-level problems —indicating that the problem of relevance and linkage is slowly being understood.

Overall, research and extension efforts have contributed little in the past to alleviation of rural poverty. Although it has been alleged that nearly 60% of national increases in output in the 1970s came from increased land productivity, smallholders did not participate in this significantly —least of all in the Northeast. The reasons for this are not difficult to identify —policy did not favour smallholder crops and was, at best, "neutral" to the scale of production. In this regard, the **effective** support received by the mass of smallholders was negligible compared to the benefits offered by publicly funded research and extension to large scale soy producers, for example. As a result, the productivity of the mass of small producers in the Northeast continues at levels that can only be qualified as pitiful.

Perhaps because basic productive resources of immediate value are not at stake (unlike in the fields of land distribution and large-scale irrigation development), there are clear indications of a change in the situation. There is a desire to make extension and research more relevant—albeit this has yet to bear significant fruits for small producers themselves. It must be emphasized that the critical problem of research is less funding than the absence of smallholder influence in setting the research agenda. There is no intimation that State-level research activities will be as adversely affected by reduction of federal transfers to the states as the extension services will be. Moreover, there is a strong likelihood that the national research organization will receive very substantial international funding for research oriented to smallholder conditions. The issue, then, is primarily organizational.

The situation is somewhat different in the area of extension, which is threatened by major budget reductions. However, introducing additional funding for extension may contribute primarily to maintenance of the current chaotic situation induced by lack of smallholder influence over activities as opposed to a growing interest in using the service "for" smallholders. The challenge here is introducing funds within a framework that ensures greater efficiency and answerability. This may involve having some of the funds channelled through the smallholders themselves rather than directly through government.

Credit. Poverty in the Northeast is attributable less to the general absence of resources in the agricultural sector than to a low level of smallholder access to those that do exist. This is most clear in relation to land, but it is also true in relation to water and technical services (i.e., to factors more immediately under government control). The above analysis suggests a depressing uniformity in the profile of smallholder access to public and private resources. The group has very slender access to all of these. And the result is a generalized absolute poverty which has very little to do with the much publicized droughts that afflict the region—and has a great deal to do with a framework that makes episodic drought the occasion of a particularly dramatic expression of a social condition that is, in fact, permanent.

It was indicated in Chapter 2 that the main policy instrument for agricultural development has been agricultural credit, principally subsidized credit. This has played a decisive role in patterns of land tenure and use. It has provided incentives to large operators to expand land holdings, to invest in cattle and machinery, and to develop private irrigation activities.

Credit to large scale operators has, thus influenced very profoundly smallholder access to land and employment. (4) It must be understood that in the Northeast smallholders are not faced with a wealth of practical opportunities for the application of agricultural credit: precarious land tenure makes long-term investments (e.g., in tree crops and pasture improvement) relatively unattractive, and seasonal investments are inhibited by the lack of delivery of technical recommendations for a high risk physical environment (erratic rainfall being major conditioning factor) —as well as by forms of sharecropping/ renting placing the burden of risk upon the producer. Nonetheless, the fact that **some** relatively small operators in the region (particularly in the Agreste) have been successful in moving into higher productivity systems would seem to indicate that access to credit **is** a factor (but certainly not the only) affecting smallholder output and income.

Table 27. Average Real Interest Rates on Rural Loans in the Northeast and Brazil.

Year	Northeast	Brazil
1980	-35.20	-34.60
1981	-37.20	-37.30
1982	-31.48	-30.50
1983	-47.32	-24.00
1984	-56.38	-3.00
1985	-47.22	-0.50

Source: See Table 12, Appendix 3.

The general availability of official rural and agricultural credit in the Northeast is low (certainly relative to the number of farmers in the region), with the percentage of total national rural credit captured by the region varying between approximately 13.6% and 14.6% (see Table 28). To some extent this is understandable —the Northeast is (even potentially) a relatively low productivity agricultural system. However, credit availability is also low relative to output. Thus in 1985, credit amounted to 36.35% of output in Brazil as a whole, but to only 18.82% of output in the Northeast (see Table 29).

Table 28. Distribution of Agricultural Credit by Region (by value of loans) (in per cent).

Region	1976	1984	1985	1986	1987
North	1.73	1.60	1.32	1.82	1.61
Northeast	13.57	13.69	14.62	14.20	13.69
Southeast	35.70	30.96	26.24	28.23	27.10
South	37.43	40.75	41.57	37.63	39.08
Centre-West	11.62	12.99	16.26	18.12	18.50
Brazil	100.00	100.00	100.00	100.00	100.00

Sources: World Bank, 1984, p. 55; Banco Central, Anuario Estadístico do Crédito Rural 1986, p. 358; and unpublished Central Bank data.

Table 29. Rural Credit and Agricultural Output in the Northeast (in constant 1986 Cz\$ 1,000) (in per cent).

Year	Northeast Share of Rural Credit	Northeast Share of Agricultural Credit	Credit/Output Ratio	
			Northeast	Brazil
1978	13.07	23.78	34.50	62.77
1979	14.01	25.74	40.72	74.81
1980	16.63	24.87	46.62	69.73
1981	18.51	27.42	47.68	70.65
1982	14.39	36.00	32.02	80.12
1983	14.25	23.78	28.96	48.30
1984	13.69	29.34	12.82	27.47
1985	14.62	28.24	18.82	36.35

Source: Vieira, 1987, p. 458.

While the above data on credit supply must reflect demand factors in some measure, it must also reflect basic **policy** decisions on the regional distribution of credit. In the Northeast the supply of formal credit is almost entirely in the hands of government institutions: between 1981 and 1986 approximately 90% of rural credit was supplied by two institutions, the Bank of Brazil (BB) and the Bank of Northeast Brazil (BNB) (see Table 30).

Table 30. Northeast Rural Credit by Source 1964-1986 (constant 1986 Cz\$ billion).

Year	Bank of Northeast (BNB)	Bank of Brazil (BB)	Other banks	Total	% BNB	BB	Combined % BNB & BB
1981	6.3	29.5	3.6	39.4	16.1	74.8	90.9
1982	5.7	23.7	2.4	31.8	17.9	74.6	92.5
1983	4.9	12.9	1.9	19.7	24.8	65.4	90.2
1984	3.8	7.7	1.1	12.6	29.7	61.2	90.9
1985	2.3	10.7	1.7	14.7	15.4	73.1	88.5
1986	1.5	13.2	2.0	16.7	8.9	78.9	87.8

Source: Vieira 1987, p.440; based on data from Central Bank, BB and BNB, reflat by IGP-DI (Fundação Getulio Vargas).

Table 31. Distribution of Rural Credit by Farm Size 1970-80.

Area (in hectares)	% of Rural Credit (by value)			Product/Loan Ratio (constant Cz\$ March 1986)		
	1970	1975	1980	1970	1975	1980
0 - 5	2.3	1.3	2.0	26.0	23.5	15.3
5 - 10	3.2	1.9	2.8	14.8	13.6	9.4
10 - 20	7.0	5.1	6.5	10.4	8.3	7.0
20 - 50	14.3	12.5	13.7	7.4	5.2	5.4
50 - 100	11.7	11.0	11.6	5.3	3.7	4.3
less than 100	38.5	31.9	36.6	9.0	6.4	6.2
100 - 200	30.8	32.1	30.6	4.2	2.8	3.5
500 - 1 000	11.0	12.4	11.5	4.4	2.9	3.4
1 000 - 5 000	14.2	16.6	15.2	4.0	2.5	3.5
over 5 000	5.4	6.9	6.2	3.5	1.7	3.0
over 100	61.4	68.1	63.4	4.1	2.6	3.5
TOTAL	100.0	100.0	100.0	6.0	3.8	4.4

Source: Passos and Khan, 1988; data from IBGE "Censos Agropecuarios".

While figures on credit/output ratios would tend to indicate that Northeast agriculture **as a whole** had a relatively inferior level of access to credit, smallholder access to official credit has also been affected by

inequality of distribution within the region, as in Brazil as a whole. For the entire country Table 31 indicates that the percentage of rural credit going to smallholders was low in the 1970s, although figures for 1980 express the increased attention given to small producers and basic crops from 1979. In 1975 only 8.3% of rural credit went to farm operations of up to 20 ha (3.2% for those with up to 10 ha) —rising to 11.3% (and 4.8%) in 1980. The distribution of credit cannot be evaluated on a per capita basis, but must be linked to area worked, intensity of production, etc. However, even taking these factors into account (using the product/loan ratio as a proxy indicator), smallholders fared badly. The product/loan ratio for operations with up to 5 ha was seven times higher than for operations over 5,000 ha in 1975, albeit the differential has dropped considerably (to a multiple of only 5) by 1980. The conclusion must be that those who, because of limited landholdings, needed to intensify production the most had least access to the means of intensification —contributing to the widening of income differentials observed throughout the country in the 1970s.

At the end of the 1970s and during the 1980s the official banking system pursued a policy of reaching out to small farmers —although there are signs that concentration may be on the rise again in the late 1980s, despite efforts to preserve special benefits for smallholders. The means employed to expand coverage of smallholders included: establishment of remote posts and more branches of financial institutions; easing paperwork and collateral requirements (in particular, the requirement that agricultural loans be guaranteed by land, which restricted credit access to land owners with clear title, was eliminated); lower interest rates for small and mini (see below) producers (currently small and mini producers are eligible for official credit at 7% interest per year plus OTN monetary correction. Rates for other producers are 9% or 12%, depending upon the purpose of the loan); higher maximum levels of official credit entitlements for small and mini producers (at present small and mini producers are eligible for loans in value equal to 100% of the estimated basic production cost (VBC) of their crops. Large producers may obtain loans for 50-100% of production cost, depending upon the crop); incentives for greater supply of credit through compulsory applications (banks are required to invest a fixed percentage of their sight demand deposits in rural loans. Funds loaned to small and miniproducers count 1.2 times their value toward the fulfillment of this requirement. For loans made to medium and large sized producers, only 90% of the value is counted towards fulfillment of the application requirement); and special credit programmes for small producers (especially in the Northeast and resettlement areas).

Table 32. Distribution of Bank of Brazil Crop Credit by Size of Producer (per cent).

Region	Year	Mini		Small		Medium		Large		Total No. of Loans	Total Value of Loans
		Number	Value	Number	Value	Number	Value	Number	Value		
%											
Northeast	1983	80.55	35.35	15.93	22.96	2.97	22.00	0.55	19.69	625 268	52 855 451
	1984	74.21	28.61	21.36	33.40	3.53	19.68	0.91	18.31	336 965	34 829 531
	1985	74.36	28.57	19.64	20.44	4.56	19.24	1.45	31.75	323 334	48 888 337
	1986	74.10	23.44	17.54	18.24	6.47	22.31	1.90	36.01	317 143	79 416 851
	1987	82.57	25.51	11.90	15.15	4.13	20.96	1.40	38.38	612 186	63 632 049
Centre-West	1983	22.40	4.05	43.99	24.85	28.67	45.45	4.95	25.65	85 370	44 197 496
	1984	16.60	2.29	50.97	29.67	23.00	29.69	9.42	38.36	59 001	34 274 974
	1985	18.00	2.19	35.49	13.58	33.51	35.91	3.01	48.31	62 367	59 996 187
	1986	15.79	1.51	29.61	10.02	36.37	29.70	18.23	58.76	87 320	106 375 517
	1987	12.16	1.17	29.52	7.87	37.47	29.72	20.85	61.24	90 027	88 081 105
Brazil	1983	62.06	16.71	27.02	26.65	9.28	32.50	1.64	24.14	1 593 257	321 700 215
	1984	48.08	11.12	38.42	32.01	10.29	26.61	3.20	30.26	1 033 363	239 729 787
	1985	50.42	9.35	30.90	17.31	14.08	28.00	4.61	45.34	1 090 629	401 586 949
	1986	47.31	8.84	29.99	16.47	16.77	25.81	5.94	48.87	1 457 425	630 664 991
	1987	48.78	6.97	28.82	16.46	15.84	28.41	6.55	48.16	1 579 334	463 795 341

Source: Bank of Brazil, Statistical Department, unpublished data (based on figures valued at constant December 1987 cruzados).

This drive towards inclusion of smaller scale producers did, in fact, yield positive results—particularly between 1979 and 1983. Thus, in 1977 loans to mini and small producers represented only 39% of all contracts, and 14% of the value of the Bank of Brazil's operations (BB). By 1980 they represented 80% and 30%, respectively. More recent data, however, appear to indicate a "relapse" in the crucial mini category. The mini producers received 62% of contracts and 16.7% of value of crop loans in 1983. By 1987, however, they received only 48.8% and 7% respectively (see Table 32).

Data on credit distribution in the Northeast are less than comprehensive. However, Table 32 indicates that the proportion of crop loans (by both number and value) going to mini producers has been considerably higher in the Northeast than in Brazil as a whole. For example, in 1987 mini producers accounted for 82.6% of loans by number, and 25.5% by value—with a very considerable increase in the number of loans between 1986 and 1987 (rising from 317,000 to 612,000). **Prima facie** it would appear that smallholders in the Northeast have been relatively well served by the credit system—partly as a result of special programmes. However, a note of caution must be sounded. On the one hand, a higher percentage of loans going to mini producers should be expected given the concentration of smallholders in the region. On the other hand, it would be a mistake to equate the rural poorest with the "mini" category of producers as defined by the BB.

The BB and other member banks of the National Rural Credit System (SNCR) are required to classify loans by size of producers, as measured by the gross value of agricultural output. These sizes are defined in terms of the Highest Reference Value (MVR), an indexed unit of account for measuring credit and credit entitlements. A mini producer is one whose annual agricultural output (**not** household income) does not exceed 400 MVR; a small producer may have up to 1,200 MVR of output; and a medium producer up to 6,000 MVR. Anyone whose gross production exceeds 6,000 MVR in value is classified as a large producer. As of June 1988 the cruzado and dollar equivalents of these levels were the following: **mini** up to Cz\$ 1,358,000 (US\$ 7,629); **small**, up to Cz\$ 4,074,000 (US\$ 22,888); **medium**, up to Cz\$ 20,370,000 (US\$ 114,438). It is evident that whereas all the rural poor in the Northeast would be classified as mini producers, not all mini producers would be classified as part of the rural poor. Indeed, the large majority of the rural population of the Northeast probably receives (in household agricultural income) no more than a quarter of the upper limit for eligibility for the mini category—while

a large number of large-scale landowners would certainly fall into the category.

Precise calculation of the number of agricultural loans going to the rural poor in the Northeast is impossible, given that the size classification of the BB is not based upon land area or total household income. At first glance, it would seem likely that given the large number of loans going to the mini category, a significant number must be arriving in the hands of the rural poor. Elementary calculations suggest that this is not necessarily the case. Taking the upper size limit of the mini producer as 500 ha (by no means unreasonable in the Sertao, albeit clearly not applicable to large-scale producers of the Littoral and, to a lesser extent, the Agreste), there would have been some 2.78 million mini producers in the Northeast in 1985. In the same year there were crop loans to some 240,000 mini producers. The proportion of mini producers receiving loans was therefore less than 10% (a figure that would rise to 12% if mini producers were only those with less than 10 ha, which certainly was not the case). It should be noted that under these conditions, it is possible that the entire number of loans was absorbed by operators with holdings between 50 and 500 ha, leaving nothing whatsoever for the mass of small scale operators.

The crude calculations performed above are extreme, but they are nonetheless indicative of the possibility that in spite of a major effort to expand the number and value of agricultural loans to "mini" producers, well over 1.7 million smallholder units in the Northeast (about 90%) receive no official agricultural credit at all (albeit the situation may have marginally improved in 1987). Reports from special development programmes suggest that this possibility is, in fact, a reality. These admittedly incomplete data suggest that smallholders in the Northeast have not benefited significantly from access to the government's major instrument in promoting agricultural development, something that certainly could not be said of large-scale producers (at least until the 1980s).

Although the situation improved somewhat in the 1980s, the allocation of rural credit from formal financial institutions in Brazil continues to be skewed toward better-off and larger producers, despite regulations designed to increase the supply of credit to small producers and lower interest rates intended to increase their demand. Ironically, one of the main reasons for small farmers' lack of access to credit in the past has been the existence of heavy subsidies which created enormous incentives for diversion of funds by those producers who were able to get access to

the credit, and for rationing by the banks towards the rich and powerful larger landowners. But the gradual removal of the bulk of credit subsidies (at the least, a switch to positive interest rates) in most regions and for most types of loans has so far not led to any reversal in the pattern of distribution of rural credit. If anything, the most recent years have witnessed a greater concentration of credit with larger producers. This reflects the continuing concentration of land and other productive resources in the hands of a very few, as well as the effects of high transaction costs—both for the small borrower and the would-be lender.

(5) Although no longer required to provide land as collateral for agricultural loans, borrowers must provide at least a **carta de anuência** (agreement with the landowner) to prove there are no prior claims against the use of the loan, and this may be difficult for small borrowers. Finally, despite simplification of lending procedures, the organization of the formal financial system is such as to give rise to an inclination towards lending to larger borrowers irrespective of formal policy. Branches and employees are evaluated with respect to costs of operation, level of disbursements, and repayment. The administrative costs of making many small loans are higher than making a few large ones, and large loans rapidly raise the volume of credit distributed. Under these circumstances, small borrowers are discouraged from applying for formal credit (even when they know they may be eligible to borrow) and lenders are reluctant to devote much effort to small loans. The result is that small producers are forced to turn elsewhere for credit, and to pay much higher effective interest rates for the at times uncertain services of informal lenders.

The small farmers' main alternative to government-funded agricultural credit or special credit programmes is informal credit from suppliers of inputs, friends and relatives, landowners or intermediaries in the commercialization process. Credit from friends and family is largely restricted to emergency needs or for small consumption expenditures. Suppliers' credits are also limited, covering only purchases of seed, fertilizer, pesticides and other inputs to production. In the Northeast, in particular, scope for use of this channel is not great, given the low use of chemical inputs among small farmers in the Sertao. In other areas of the Northeast it may be a more viable source.

The main informal credit mechanisms open to the small farmer in the Northeast are linked to tenancy arrangements (mainly sharecropping) and to marketing or commercialization of the product. The principal mechanism for the latter is the "purchase" of a crop prior to harvest, known as **compra antecipada** or **compra na folha**. Under the latter

system, an intermediary, generally a warehouse owner, independent trucker or other agent, purchases the crop for less than its estimated future price (perhaps as little as half), providing the farmer with ready cash or a promise to pay at harvest time. This system also shifts some of the risk with respect to price fluctuations at harvest time to the intermediary and gives the farmer a market for the crop.

The second system is primarily used in areas where sharecropping (*parcelros*, *meleros*, etc.) exists. In a sense, sharecropping and some tenant farming are themselves a form of credit—the landowner advances the land for the farmer's use and at the end of the agricultural year receives the land back, plus interest (in the form of product or money rent). In addition to this form of "credit", which is really a rental system, it is common for landowners to advance seed and other inputs as well as basic foodstuffs that allow a sharecropper family to survive until the harvest. Until recently, these advances were repaid—in cash with interest—out of the sharecropper's share of the commercialized harvest. Today, because of high rates of inflation, these loans are more commonly repaid in kind. In either case, this type of credit has the potential for evolving into a system of debt servitude. When output is poor and the loan cannot be repaid from one year to the next, the debt is rolled over and the sharecropper finds it exceedingly difficult to extricate himself from the debt. This can be one means at the disposal of the landowner for ensuring the continued cooperation of the sharecropper or tenant farmer.

Despite the occasional pernicious effects of these informal credit mechanisms, it is nonetheless important to keep in mind that they are linked to access to other resources and services—land and markets in particular—and that this is part of the reason they are used by small borrowers. In the case of commercialization intermediaries, they provide transport, grading, processing and other services that would otherwise involve additional time and money expenditures for the farmer. The development of alternative credit mechanisms by the government and NGOs must take account of these services and develop alternatives to them as well as the purely credit aspect of informal intermediaries. Otherwise, poor farmers newly saddled with a formal debt may be unable to repay, let alone improve their incomes and well being.

There can be little doubt that the smallholder population of the Northeast, historically penned into small areas of a region which is by no means generously endowed with natural resources, has not benefited from any major development assistance. It has not gained access to more

land; it has had little access to irrigation development; it has received little technical assistance; and its access to credit has been severely limited. In all respects this experience stands in contrast to the benefits received by large-scale producers from government policy. The smallholder experience has been one of a weakening in its ability (never great) to compete with large landowners for basic resources and, indeed, of a continued dependence upon those landowners and other members of the rural elite for access to basic necessities such as land, capital and, frequently, market linkages. While this dependence has involved some resource flows to smallholders, the *raison d'être* of the relationship is that the flow to the landowner or merchant is greater than the flow to the producer —creating perhaps definitive obstacles to the on-farm accumulation and capitalization necessary to raise agricultural income above levels that are extremely low by any standard, and which stand in marked contrast to the affluence of some of the urban sectors of modern Brazil.

Marketing. The deficiency in access to **productive** resources is general. But the deficiency also extends in a linked fashion to basic connections to the market. It was noted in Chapter 2 that in pursuit of raising levels of food crop production government has engaged in a more positive minimum price policy, involving greater purchases at higher support levels. Although this is of obvious potential importance to smallholder producers, there are clear indications that the group does not enjoy the benefits of this, ostensibly most size-neutral of all, government intervention. Small-scale producers tend to sell their surpluses to middlemen at depressed prices. The reasons for this are various. As indicated above, many smallholders are engaged in multiple relations with local merchants and/or landowners, in which commercialization is part of a larger exchange of services. While these relations tend to limit possible competition in the sphere of commercialization, it is also important to realize that smallholder surpluses tend to be so small and erratic that the development of commercial services at the local level is frequently "naturally" inhibited by a low volume of trade and high transaction costs —while distance and transport costs are a disincentive to independent delivery to government purchasing depots, which, moreover, are not organized to receive small lots of ungraded produce.

There are no available data on smallholder deliveries to government purchasing agents. However, the data on the destination of credit by use presented in Table 33 gives some indication of the magnitude of smallholder access inasmuch as sales to the State are closely tied to

obtaining marketing credits. Thus, whereas in 1987 the mini producer category absorbed 27.57% of agricultural operating credits conceded by the BB in the Northeast, they accounted for less than 0.5% of marketing credit by value (and 15.7% by number). Given that most of these mini producers receiving credit are not from among the rural poor, the suggestion must be that smallholder access to government marketing system is completely negligible. While there are clearly variations in prices received by smallholders, it seems that government support prices do not affect them directly, and that they in fact pay extremely high intermediation charges. This circumstance indicates that an improvement in the smallholder situation would necessarily involve not only production itself, but also a change in many elements of the total structure of economic and social relations within which small producers are inserted—changes which would inevitably conflict with the interests of major social groups for whom the dependence of the poor is a basis of personal and group accumulation.

Table 33. Distribution of Bank of Brazil Rural Credit in the Northeast by Size of Producer and Purpose of Credit.

Year	Operating		Investment		Marketing		Total	
	Number	Value	Number	Value	Number	Value	Number	Value
Mini								
1987	81.84	27.57	55.36	16.20	15.72	0.44	80.15	24.00
Small								
1987	12.52	16.40	23.28	16.52	18.97	4.40	13.20	16.10
Medium								
1987	4.36	21.12	15.66	28.56	30.62	9.25	5.08	22.63
Large								
1987	1.27	34.78	5.59	38.54	34.69	85.37	1.56	37.12
Total*								
1987	100.00	99.87	99.89	99.82	100.00	99.46	99.99	98.84

* Figures above do not add to 100% due to exclusion of cooperatives and associations. They are accounted for in the totals.

Source: Bank of Brazil, Departamento de Estadística, unpublished data.

Conclusion. The agricultural conditions of the rural poor in the Northeast are lamentable. Their resources are few, and their production practices largely unimproved. What is striking about this situation is not only this marked underdevelopment, but that it should exist in a period when other groups in the agricultural sector (particularly large- and medium-scale producers) have had their access to resources of all sorts expanded through government intervention. The issue is not simply one of sub-sectoral distribution of assistance —albeit policy throughout the 1970s certainly could not be construed as supportive of the traditional food crop sub-sector. It is very much an issue of size and "modernity" —with smallholders in the Northeast scoring low on both scales. Sectoral policy simply did not envisage agricultural development on the basis of small-scale, relatively uncapitalized production. The result was the maintenance of a huge pool of not only relative, but also absolute poverty in the Northeast —and of a mass of producers producing little or no surplus for the national market (in spite of the high percentage of rural population in the Northeast, the region is a net food importer).

Implicitly and explicitly the development solution for the rural poverty of the Northeast was not increased smallholder production, but proletarianization and migration to more productive sectors. Throughout the 1970s and 1980s this did, in fact, take place on a massive scale (see Table 34). The relative closure of the urban frontier for rural migrants from the Northeast with the emergence of endemic economic difficulties in the urban sector has, however, thrown the poor of the Northeast back upon their meagre agricultural resources —which have certainly not been developed to meet the challenge. It is important to note that this unpreparedness has not arisen in the context of total neglect for small-scale agriculture in the region. In fact, there have been major (in absolute terms) expenditures on small-scale production development in the area. As data on production and income demonstrate, the effects of these expenditures have been far from impressive. Part of this is attributable to the disproportion between the funds committed and the extent of the problem, but part is also attributable to characteristic design and implementation failings in projects and programmes. An appreciation of these failings is necessary background for the formulation of a strategy of intervention in the region. This is the subject of the following Chapter.

Table 34. Net Migration in the Rural Areas of the Northeast, 1960-70 and 1970-80.

	Net Migrations (In 000s)		Migration Rates*	
	1960-70	1970-80	1960-70	1970-80
NORTHEAST	-4.373	-4.990	-0.298	-0.279
Maranhão	-0.598	-0.586	-0.294	-0.262
Piauí	-0.220	-0.319	-0.230	-0.279
Ceará	-0.523	-0.899	-0.238	-0.348
Rio Grande do Norte	-0.180	-0.182	-0.251	-0.224
Paraíba	-0.414	-0.466	-0.317	-0.338
Pernambuco	-0.846	-0.760	-0.373	-0.324
Alagoas	-0.223	-0.355	-0.266	-0.371
Sergipe	-0.180	-0.180	-0.390	-0.370
Bahia	-1.189	-1.243	-0.306	-0.282

Source: Calculations based on IBGE, Demographic Censuses.

* Rates = $\frac{\text{Net migration, P1 to P2}}{\text{P1}}$

NOTES CHAPTER 4.

- 1) That is, intercropping.
- 2) MIRAD has been abolished recently, with its functions assigned to the Ministry of Agriculture.
- 3) EMBRATER has very recently been abolished.
- 4) Access to official credit in the Northeast is a potentially major factor in agricultural income, given that effective interest rates in the region have been even more strongly negative than elsewhere (because of special programmes and continuing special incentives for agricultural development). This has become especially the case in recent years, as the national credit policy has moved towards positive interest rates. Thus while the average real interest rate for rural loans in Brazil as a whole was -0.5% in 1985, in the Northeast it was -47.22% (see Table 27).
- 5) To some extent this concentration of credit also reflects demand. Smallholders continue to be wary of taking credit because of risk factors. One of these is indexation linked to inflation, which has been a serious destabilizing factor in planning at the level of the small farm.

CHAPTER 5
SMALLHOLDERS AND DEVELOPMENT
INTERVENTIONS IN THE NORTHEAST

INTRODUCTION

In spite of a general agricultural sector policy which (until the 1980s) tended to severely neglect both small-scale producers and food crops, smallholders in the Northeast **have** been the objects of programmatic interventions designed to improve standards of living. Indeed, the Northeast has been almost the exclusive recipient of development assistance for this purpose. This does not contradict the previous characterization of national sectoral policy. Rather, assistance to small producers in the Northeast has been primarily inspired by regional rather than agricultural concerns: by fears of the national social instability possibly arising from the existence of a huge mass of the desperately poor; and by a desire to achieve a certain equity in the distribution of government development resources among the units of the federation.

The socially destabilizing potential of poverty in the Northeast has been well recognized since the end of the nineteenth century, which saw the inception of infrastructural works oriented to relief of periodic drought and programmes for absorbing regional labour in drought periods. The issue of drought has long dominated thinking about "development" expenditures in the Northeast—and contains within it the essence of the concern making the region a "problem". The drought periods in the Northeast have historically been social "moments" in which the masses of the rural poor have been expelled from their normal isolated and mute poverty to roam the country, carrying their misery to the social and political centres. Drought relief was the means of avoiding this—not the normal poverty, but the infectious ambulant poverty. Thus little attention was paid to overcoming the fundamental causes of poverty; rather the objective was suppression of its periodic, exaggerated symptoms. The classic form of this was massive public employment in critical periods—fixing the population in the region, and contributing very little to amelioration of **smallholder** defences against poverty and the most extreme workings of

a harsh natural environment. It cannot be said that such activities were **developmental** in any meaningful sense, being oriented more towards the immediate **consumption** of the poor than towards enhancement of long-term assets at their disposal for **production**. Public employment schemes have by no means disappeared from the Northeast, indicating, in some measure, the failure of the programmes described below (1) to make changes which could hardly abolish drought, but which promised to change the circumstances which made the poor so very vulnerable to it.

A change in the prevailing approach to the containment of the effects of poverty in the Northeast can be dated to the late 1950s (e.g., the Working Group for the Development of the Northeast—GTDN), which saw the emergence of a perception that the **productive** conditions of the rural poor would have to be improved in order to avoid periodic massive population movements and to establish some measure of control over the large, more or less constant, migratory flow from the Northeast to more dynamic economic areas. Following the dramatic drought of 1970, the First National Integration Plan (PIN) was formulated to encourage migration from the semi-arid areas of the Northeast to the Amazon region via the Trans-Amazonian Highway. The attempt to promote massive migration to the Amazon region was not a success. Neither was the complementary strategy to address poverty in the Northeast, embodied by PROTERRA introduced in 1971.

PROTERRA: Programme for Land Redistribution and Stimulation of Agroindustry in the North and Northeast

The objective of PROTERRA was to address rural poverty and employment problems within the Northeast through two major avenues: land redistribution and agricultural modernization. Land **reform** was to be implemented in those regions where it was in the "social interest" as defined by the Land Statute of 1964, with priority areas being initially delineated in Ceara, Paraiba, and Pernambuco. Land **credit** was to be introduced to finance purchases by the landless, as well as to enable small producers to increase the size and economic feasibility of their holdings. Funds were also assigned to land surveys, demarcation and titling. Agricultural modernization programmes included special credit lines to stimulate the production and use of modern inputs, financing for the reorganization of large estates, and resources for rural infrastructure including marketing facilities, roads and electrification.

The programme's implementation revealed some of the basic problems besetting all development activities in the region: the intractability of the issue of access to land (especially non-marginal land); and a pronounced tendency to target support for production to strata "above" the mass of the rural poor—including a new middle class of farmers, as well as the traditional elite itself. Orientation to these upper and middle strata (on a *de facto*, if not *de jure*, basis) reflected, in part, an inability to properly grasp the possibilities of inclusion of the poor in improvement of productive processes (which, itself, was limited by the land question). It also reflected the ability of the local ruling strata to exercise substantial control not only over local resources, but also those from exogenous sources entering the local system, irrespective of their nominal destination. Thus, land reform under PROTERRA had an insignificant effect on the problem of access to land in the Northeast. Roughly 95% of the land redistributed between 1972 and 1980 (266,400 ha) was acquired with the prior consent of landowners. This land was redistributed in relatively large holdings in an attempt to create "middle-class" capitalized farmers with a capacity to finance on-farm accumulation. In this period, only 2,952 families were settled on land acquired under PROTERRA.

Land credit also absorbed a negligible share of the total resources allocated to PROTERRA. The main credit beneficiaries were agroindustrial firms established to manufacture farm inputs or process farm products, and larger landowners who received heavily subsidized credit to utilize these inputs. Indeed, sugar and cocoa producers, who already enjoyed subsidies under other public credit lines, were major beneficiaries. These industrial projects and large agricultural undertakings also were eligible for fiscal incentive resources under the SUDENE 34/18-FINOR programme. In general, PROTERRA credit lines gave significantly greater impetus to agricultural modernization, notably *peculiarização*, and the expansion of agroindustrial capitals. Much of the livestock lending under PROTERRA financed large-scale projects involving conversion of land to permanent pasture, leading to greater specialization in the production mix rather than diversification, with negative effects on employment and tenancy.

A 1975 World Bank report on rural development issues in the Northeast suggested that the already skewed distribution of rural credit had been further distorted by PROTERRA. Little change was detected in the access of small farmers working holdings under 10 ha to institutional credit. "Although PROTERRA credit policy gave no special

emphasis to investment in the livestock industry, this type of investment eventually came to dominate the programme. The availability of funds at low nominal interest rates in an inflationary environment made purchase of land and (the) building up of investment in livestock herds a very attractive form of asset holding ... As a result, PROTERRA has led to a redistribution of the use of credit toward asset-concentrating activities ..." (World Bank, 1975, ix). The same source also observes that "By restricting subsidized credit to the purchase of machinery, equipment and other modern inputs, current PROTERRA lines discriminate against the small farmer" (ibid, xii). At that time, small farmer credit lines were administered mainly by the Bank of Brazil, but these allegedly were regarded more as welfare or distributive programmes than as vehicles for productivity enhancement and modernization. This phenomenon, of a "welfare" approach to the rural poor, has been a persistent thread running through development activities in the Northeast, and is the corollary of the view that real productive alternatives are viable only among medium- and large-scale farm operators. It is by no means evident that such an approach has helped either the poor or institutions serving them to identify sustainable lines of higher-value activities.

POLONORDESTE: Development Programme for Integrated Areas in the Northeast

The limited impact of PROTERRA upon the poor, and a desire to increase exploitation of higher (potential) productivity zones in the Northeast led to the introduction in 1974 of a new agricultural development strategy, POLONORDESTE. This initiative incorporated the planning concept of integrated rural development projects (IRDPs) developed in Puebla, Mexico, in the late 1960s, and which became the linchpin of World Bank rural development lending from the mid-1970s. The central element of the IRDP strategy is to undertake **institutional** changes which improve small producers' access to credit and modern inputs as part of an overall drive to accelerate their modernization and integration in the market.

The IRDP approach was implemented vigorously in the Northeast, and POLONORDESTE soon became the main instrument of agricultural modernization. IRDPs were initiated in 43 selected "priority" areas extending over almost 50% of the region's total area. Five physiographic zones were chosen: (a) humid valleys; (b) humid uplands; (c) rainfed agriculture; (d) coastal plateaux; and (e) the pre-Amazon area of

Maranhão. However, projects were concentrated in the first zone, humid valleys, which accounted for half of the potential beneficiaries.

POLONORDESTE was to achieve three major aims: improve the efficiency of agriculture, raise rural incomes and increase employment. The latter objective was to be achieved, in part, by promoting greater access to land ownership and redistributing idle land. According to planning documents, small producers with or without land were identified as the target population, and the aim was to reduce or eliminate the limiting factors which prevented these producers from raising their incomes and participating more fully in the market economy. In practice, family-labour production was to be transformed by increasing the use of modern inputs, orientated by the extension service and given economic feasibility by access to subsidized institutional credit.

In the first phase of POLONORDESTE between 1975 and 1979, resources were distributed between IRDPs (41%), settlement projects (11%), irrigation projects (39%) and other activities (9%). At 1980 prices, total planned investment for 1975-82 was Cr\$ 67.9 billion, of which Cr\$ 56.1 billion were released and Cr\$ 45.4 billion actually invested. The main expenditure category, "assistance to producers", was allocated 42% of total programme resources for 1975-79, and individual programmes under this rubric included technical assistance and extension (16.5%), agricultural research (5.5%), input supply (5.2%), and mechanization (5.2%). Land titling was allocated only 2.6% of total resources and implementation fell far short of targets. In the years 1975-82, only 17.6 thousand titles were issued (45% of target) and 45.3 thousand hectares were redistributed (16% of target). Economic infrastructure was allocated 33.6% of total resources, divided between feeder roads (21.4%) and rural electrification (12.2%). In fact, feeder roads constituted the main individual component of POLONORDESTE expenditure in 1975-82, benefiting the more commercially-oriented producers. Planned social infrastructure expenditure was distributed between education (8.8%), health (5.2%), and sanitation and water supply (4.6%).

According to Ferreira Irmao (1983), rural credit was extended to some 6,800 producers in 1975-79 but the high maximum loan ceilings suggest that larger farmers benefited from this programme. This ceiling was reduced sharply in 1979 and again in 1980. Estimates by the BNB indicate that rural credit operations had a much wider constituency, reaching some 120,000 producers in the period 1975-March 1982. However, this figure is not broken down by size of loan nor class or

category of borrower. Resources allocated to POLONORDESTE credit lines fell dramatically in 1982. The loan operations of the Bank of Brazil, the programme's main financial agent, declined from Cz\$ 9.2 billion in 1980 to Cz\$ 2.5 billion in 1982, while the drought in these years reduced demand (BNB, 1985). Credit programmes were dogged by disbursement delays, lags in releasing loans to borrowers, allocational rigidities between investment and operating credit, political interference with loan approvals, and credit misuse by borrowers.

POLONORDESTE created very few direct jobs and its indirect employment effects depended very much on changes in technology and crop mix in specific project areas. Detailed case-studies are therefore required, such as Sampaio *et al.* (1978), who investigate indirect employment creation in four areas. In Parnaíba (Piauí), positive employment effects were overwhelmed by the expansion of livestock activities to give a negative net balance of -8,000 man-days. In Ibiapaba (Ceará), the substitution of livestock and commercial crops, such as passion fruit, coffee and sugarcane, for traditional food staples led to a net loss of 78,000 man-days. By contrast, in Rural Norte (Rio Grande do Norte) 103,000 man-days of indirect employment were created, mainly on small farms, by the expansion of cotton and manioc production. A similar process occurred in Paraguacú (Bahia) despite job losses due to livestock expansion to give a net balance of 441,600 man-days of indirect employment.

There are no reliable quantitative estimates of the impact of POLONORDESTE on output or productivity. Experience has varied between different project areas and crops, and again case-studies provide the only satisfactory way of investigating this question. Nevertheless, discussing eight World Bank IRDPs, Tendler (1988) asserts that "the Northeast projects, on average, did not lead to impressive increases in agricultural production or productivity, and the extension service had no tested technical package that could deliver large increases in yields".

Broader critiques of POLONORDESTE have been directed against its selectivity and uncertain success in raising rural incomes and employment. The implementation of this programme, it is argued, benefited a select minority of small producers, namely, those with a sufficiently high resource endowment, especially land, to respond to incentives to increase their marketed surplus. This selectivity was reinforced by the macro-economic priority given to expanding food production for the domestic market. The vast majority of small producers

— landless workers, tenants and owners of *micro-fundla* saw little, if any, improvement in their access to income-raising resources. (2) This was a major consideration behind the introduction of **Projeto Nordeste** in 1985, and particularly the PAPP.

As in the case of PROTERRA, POLONORDESTE foundered on some basic obstacles: the impossibility of promoting effective change in land tenure; and the lack of serious attention to the poor as potential contributors to aggregate marketed output (giving rise to a relative absence of technical innovations appropriate for smallholder conditions). It also exhibited other failings of an institutional character: on the one hand, the continuing susceptibility of development agencies to influences expressing the interests of large-scale producers; on the other, the costliness and inefficiency of development-cum-technical agencies at the state and regional levels. SUDENE in particular was accused of an extraordinarily high level of absorption of funds in overheads, while state level agencies demonstrated both a low level of coordinating ability and insufficient discipline in assuring that programme resources were actually devoted to activities within the overall programme frame. These phenomena must be linked to both the paternalist character of the intervention in which intended beneficiaries exercised no influence over activities ostensibly developed on their behalf and to the fierce competition for access to all external resources entering the region—it being often alleged that "anti-poverty" activities in the Northeast have the characteristics of an "industry" seeking to **receve** funds on the basis of the needs of the poor, but **distributing** resources in response to quite different concerns. An example of the rather extreme forms that this relative disarticulation between ostensible objectives and actual activities is provided by **Projeto Sertanejo**.

Projeto Sertanejo: Special Programme to Support the Development of the Semi-arid Region

In selecting the semi-arid region and humid valleys as its priority areas, **Projeto Sertanejo** (1976) duplicated two spatial foci of the wider POLONORDESTE programme, reflecting bureaucratic competition and ambiguities in the strategies of federal and regional planning agencies. Irrigation projects executed by DNOCS as part of the Northeast Irrigation Plan also were included and given a central role in **Sertanejo**.

The conception of this programme was influenced by a study of the drought of 1970 and its differential effects on various rural tenure classes (Cavalcanti and Pessoa, 1973). This indicated that the vast majority of drought victims seeking emergency assistance on public work fronts comprised wage labourers, sharecroppers, tenants and owner-operators of holdings under 20 ha. The high proportion (42%) of sharecroppers (**parceiros**) and share-tenants (**moradores meleiros**) also emphasized the links between relations of production and the risk-averting behaviours of larger landowners. However, the "target group" eventually established by Sertanejo was excessively broad, taking in roughly 95% of the region's rural labour force (Sampaio et al., 1979). Moreover, the possibility of benefiting the landless and **minifundistas** was conditional on the vague and unrealistic prospect of "restructuring landownership". In fact, in the first year of the programme in 1977, SUDENE indicated that the modernization of holdings of up to 500 ha would be the main purpose of the programme.

Within the semi-arid area, defined by the isohyet of 800 mm annually, Sertanejo activities were to be concentrated within the vicinity of the irrigation projects administered by DNOCS, as well as nuclei selected by state governments. Formally, the main strategy was to link the irrigated projects and surrounding rainfed agricultural areas within a radius of 30 km in an effort to improve rural infrastructure and marketing facilities, create more stable employment and so reduce the adverse social effects of the drought. Small-scale projects, including the construction of dams, reservoirs, wells and irrigation systems, and investment in drought-resistant pasture and animals (sheep, goats), were to be financed by special subsidized credit lines. The programme also included the formation of special teams in the centres in order to provide more intensive technical assistance and social services. By December 1982, 107 **nucleos** had been established, 61 of these in 1980-81.

According to a recent study, investment projects submitted by some 14,500 producers had been approved by 1982, although 12,880 of these were only submitted in 1980-82. Of this total, 62% of the projects were on holdings of under 100 ha. The land credit programme to finance land sales to the landless was not implemented due to the "unavailability" of resources (BNB, 1985). This source also observes that "the overall results obtained by December 1982 in terms of the public benefited seem limited given the administrative structure already established". If actual and potential beneficiaries in the Sertanejo nuclei are compared, only 1.5% of small producers (under 100 ha) had investment projects

approved, whereas this rises to 11% for owners of holdings between 100 and 500 ha. These producers also enjoyed more intensive technical assistance, which was tied directly to the execution of the investment projects. Projected employment creation is 129,000 jobs, including 99,000 temporary jobs (BNB, 1985). Although the emphasis of this estimate is not given, the creation of temporary employment hardly seems an effective way of attenuating the social impact of the drought. Projeto Sertanejo emerges as a small-scale, ineffectual programme, with a huge gulf between professed aims and achievements.

The indisputable lack of success of Project Sertanejo in addressing the rural poor in the semi-arid zones was paralleled in the sugar areas by the shortcomings of the Special Programme of Assistance for the Poor of the Sugar Zones of the Northeast (PROCANOR). Ostensibly oriented to improvement of access to land, improvement of income and employment, diversification of production, and expansion of the area dedicated to basic food crops (in response to the social pressures revealed by the cane-worker strikes of 1979/80), the programme, in fact, concentrated upon "social" investments (sewers, water supply, electrification, housing, health and education), with minimal impact on employment and income. As in the "backlands", attempts at amelioration foundered on the structure of land tenure — leaving little space for assistance other than "welfare" activities which were certainly beneficial, but largely irrelevant to the roots of poverty. A similar problem was encountered by the Programme for the Exploitation of the Hydraulic Resources of the Northeast (PROHIDRO), which was conceived of as complementing POLONORDESTE through strengthening the infrastructure of water management. Although it did succeed in constructing a number of dams and reservoirs, an early orientation to reservoir construction on private lands (as opposed to public reservoirs or communal wells), and a failure to defend the rights of smallholders in the valleys of rivers subject to regularization of flow, led to a *de facto* limitation of benefits (to the poor) to improved potable water supply — a social benefit, no doubt, but not a **productive** improvement.

Projeto Nordeste

In 1985, the federal government abolished POLONORDESTE, Projeto Sertanejo and other regional programmes and launched an ambitious new integrated initiative, Projeto Nordeste, with the avowed aim of benefiting the families of 2 million poor small producers over a period of 15 years. In many ways, the design of Projeto Nordeste, and especially

its main component, the Programme of Support for Small Rural Producers (PAPP), is a product of the idealism generated by the transition towards democratic government. The key assumption was that this political climate, reinforced by the growing strength of rural social movements, had created favourable conditions for a grassroots, "bottom-up" strategy of rural development (in contrast to the paternalism of previous interventions).

The broad objectives of Projeto Nordeste (developed in 10 state-level programmes with a first-stage target group of 600,000 producers) are familiar, including the elimination of absolute poverty and the reduction of interregional disparities of economic growth. Agricultural modernization also continues to have a central role, notably in the form of PROINE. However, the distinctive features of Projeto Nordeste are to be found in the strategy of PAPP, which is based on the restructuring of land tenure and the mobilization and social organization of the rural poor to establish more participatory, community forms of decision-making. These lines of action were predicated on the productivity and income gains to be achieved by the diffusion of agricultural technologies combining scientific knowledge and accumulated peasant "know-how" of farming in risky, semi-arid conditions.

The PAPP, which is heavily financed by the World Bank, represents an extremely important development in the design of smallholder sector interventions in the Northeast. Noteworthy is a major shift away from viewing Land Reform as a practical basis for extending development benefits in the region. This does not reflect ignorance of the significance of the land tenure issue. In fact, the external source of assistance involved (the World Bank) had recognized the desirability of Land Reform by the late 1970s. Rather, it reflects the experience of the practical impossibility of significant land redistribution, leading to an emphasis on (and very major financial commitment to) clarification of existing land rights—an action promising benefits for a substantially greater number of smallholders than those likely to benefit from dedication of resources to land reform under current conditions.

While a certain social realism has distracted attention from the chimera of Land Reform, it has also led to a partial reorganization of the relation between smallholders and development activities—most notably in the fields of research/extension and community development. In relation to the former, PAPP has introduced (as noted in Chapter 4) a much more interactive producer/extension/ research framework oriented

strongly to the practical problems and possibilities of smallholders (a dimension noticeably absent in "scale-neutral" research). In community development, PAPP involves a major innovation (in terms of large-scale programmes), i.e., the creation of a framework of support for community-initiated projects and investments—establishing thereby the beginnings of some level of beneficiary control over the application of resources and the basis of some relevance to the needs of the sections of the rural poor whose extremely limited resources prohibited effective exploitation of conventional agricultural improvements.

The fact that PAPP embodies a project strategy reducing, in certain dimensions, the structural distance between the producer and the form and content of assistance has not guaranteed success, particularly on the land tenure "front". Partly in continuation of the Project for Landholding Regularization in the Northeast (PRFN), the land tenure strategy of PAPP is embodied in the National Land Tenure Administration Development Programme (PDSFN), whose funding of US\$ 250.5 million was negotiated with the World Bank in 1985. This programme seeks to adjudicate and register land rights on some 31 million ha in the Northeast using aerial photogrammetry and land survey methods, leading to the establishment of a land cadastre data bank. PDSFN was expected "to confirm the titles of up to 300,000 landowners and provide titles to another 700,000 rightful occupants of land in the area adjudicated. It would eliminate a major barrier to the access to official credit for at least 200,000 farmers ..." (World Bank, 1985, 1). Land redistribution is not a direct component of the World Bank project, although it is suggested that about 10% of the 31 million ha to be surveyed might possibly be redistributed to landless workers and owners of sub-family holdings. PDSFN was initiated in October 1985 for three years but has since been extended to 1990 due to implementation problems.

Drawing on MIRAD data for the period October 1985-December 1987, Chalout (1988) emphasizes the slow progress made by PDSFN, particularly those sub-programmes which challenge the **status quo** of land tenure. Aerial photogrammetry had covered 65% of the projected area by December 1987, but land rights had been adjudicated on only 17% of the target area. Only 115,000 families had benefited from land title adjudication and registration procedures, compared to a target of 700,000 rural households. These procedures are also intended to identify idle land to be acquired through expropriation or purchase by state governments for redistribution, amounting to an estimated 3 million ha. Yet by the end of 1987 only 405,000 ha had been acquired and some

10,742 families settled, well below the target of 129,500 and an insignificant number in regional terms. Overall, aerial photogrammetry and adjudication/cadastral procedures have absorbed the lion's share of PDSFN resources. Land tenure "restructuring" in practice has become land titling, foreshadowing the fate of the National Land Reform Programme.

If the Land Regularization component of PAPP has run afoul of the interests that previously put up such a strong resistance to Land Reform, problems have also arisen in the community development field. The programmes of social and community organization implemented under the Small Rural Community Support Programme (APCR) have suffered from excessive fragmentation and bureaucratic unresponsiveness, deteriorating in many cases into instruments of clientelism and co-option. APCR has, in a certain sense, invited interference by virtue of the highly concessional terms of "credits" for community activities—standing in contrast to the general movement towards positive interest rates for official rural credit.

The consequences for rural development activities of insertion within the larger process of political and administrative re-organization as outlined in Chapters 1 and 2 (including growing concern with smallholders, but incoherence and instability in interventions) have become rapidly evident—not only in APCR but also, on a much larger scale, in the overall pattern of development support.

Although Projeto Nordeste and PAPP originally were intended to arrest the proliferation of development programmes, the situation in fact has since worsened. Indeed, PAPP has lost its coherence and identity due to the welter of overlapping lines of authority and the diversion of financial resources into other state government programmes, including general purpose current expenditures. PAPP has also suffered from strong interference at state and local levels and frequent institutional reorganization due to changes in public administration. The process of fragmentation and duplication is exemplified by the introduction in 1986 of **Programa São Vicente** which, like PAPP, is intended to support the organization of small producers and rural communities in order to improve their access to public services. Despite the benefits of small infrastructure works and financing of equipment purchases, including the "typical" **casa de farinha**, this programme duplicates sub-components of the PAPP and aggravates policy coordination. Much the same can be said of **Projeto Padre Cicero**, launched in 1988 to finance the construction of cisterns, wells and small dams and provide water supply in small holdings and rural

communities in semi-arid areas. This new programme uses the same source of financing as PAPP, accentuating the proliferation of small, dispersed policy interventions.

As Brazil enters a period of intense electoral activity, there is an underlying pressure towards a proliferation of projects and programmes essentially expressing interests in creating a rural "presence" involving benefits to the electorate. These create tremendous strains upon service organizations, reducing the likelihood of consistent and sufficient support for any activity. They also create pressures for "one-off" and immediate delivery of material assets on highly concessional terms. Neither of these will be beneficial to smallholder development in the long run. Significant amounts of scarce resources are devoted to this spray-gun approach to rural development without bringing appreciable change in the structural conditions limiting small producers' access to higher, sustainable levels of income. It is sometimes argued that such "welfare" programmes are the second-best alternative in the absence of real prospects for land reform or major technological advance. From this perspective, PAPP, and especially its community component of the APCR, are palliatives which bring some immediate marginal benefit but offer no long-term prospect of a sustained improvement in rural incomes.

Such a "realistic" view, however, obscures as much as it reveals. It is certainly true that PAPP is subject to abuse. However, **what** is being abused is different. The emergence of local communities and producers as agents in decision-making processes represents a very significant change (which, admittedly, has yet to manifest itself in a change in the concrete conditions of life for the large majority of the rural population) in programmes in the region, and one that may provide a base for a significant reorganization of resource flows. Similarly, PAPP has taken important **organizational** initiatives in the field of technology. PAPP gave priority to the development of agricultural technologies adapted to semi-arid conditions and, above all, accessible to small producers. Although implementation again has fallen below projected levels, PAPP has led to significant increases in the number of field trials, distribution of seedlings, and production of certified seed. Nevertheless, progress towards a tested technological package suited to the agronomic conditions and production systems of small producers is agonizingly slow. Regretably, the continuity of PAPP is in jeopardy because of uncertainty about federal funding for activities developed within the framework of state-level institutions, particularly as funds continue to be absorbed by a wide variety of small-scale interventions whose **development** logic leaves much to be desired.

The extremely limited success of **all** development interventions in changing the basic parameters of the conditions of the rural poor in the Northeast were dramatically attested to by the re-activation of the Emergency Programme in the drought cycle between 1979 and 1984—engaging the government in drought relief at huge and unprecedented cost. In the 1983/84 drought 2.7 million families in the Northeast were employed in "work fronts". While this did, in fact, bring substantial relief to the rural population, the very necessity of it attests to the inadequacy of **development** assistance insofar as this had not generated the tenure base or distributed technology to withstand what is, in fact, a regular aspect of the environment. In many ways, overcoming the scourge of drought is the same as overcoming the regular structural causes of poverty. The need for vast work fronts indicated that **neither** had been accomplished.

Conclusion

What is striking about rural poverty in the Northeast is that it has persisted in spite of more than 15 years of development interventions involving large volumes of funds explicitly oriented to the poverty issue. As was indicated in Chapter 4, these ostensibly poverty-oriented interventions must be placed in the context of the much broader range of official measures supporting agriculture in general in the region—most of which were either indifferent or objectively prejudicial to the interests of the rural poor. In some measure, poverty programmes are put in the position of simply compensating for the effects of general programmes, a battle which they are by no means obviously winning.

It must be noted that anti-poverty interventions have been doomed (in terms of their broad objectives) from the very beginning. Not one programme has had a significant impact upon the land tenure situation that is one of the decisive structural causes of the deprivation of the rural majority. While there have been grave failings in orienting agricultural services to smallholder conditions, it is not clear that success in this areas would have had a major impact upon rural poverty—because it is not evident that there is any **agricultural** solution to the misery of the huge mass of the rural poor, given their minimal access to the basic productive resource, land. From this point of view there is a certain harsh logic in, for example, an irrigation strategy which seeks expanded employment opportunities for marginal producers—on the land of others. There is also logic in abandoning the idea of Land Reform to concentrate upon titling

issues standing in the way of access to resources among those who already possess land —albeit this does little to address the problems of the landless and near landless. Neither of these strategies do much to help the marginal, semi-independent producer. But it is not so very evident that there is, in fact, much to be done —given enduring social and political realities in the region.

The structural obstacles persist, but so does the problem of poverty. Modern agricultural development has **not** provided an adequate alternative/supplementary income for the rural poor, and very large numbers of the poor persist in their attempts to gain income from small and untitled holdings. The dramatic consequences of the drought of 1983/84 brought these facts very forcefully to the attention of the political authorities —precipitating a new development effort in the region (particularly PAPP) oriented, again, to the poor. There can be no doubt that this new initiative, emerging in a situation in which the rural population had acquired an expanded social significance (above and beyond the threat of social disorganization posed by unregulated, large-scale migrations), did represent a more serious engagement with the smallholder. The emphasis upon aggregate output gains which had characterized many previous efforts (and ensured that they failed to reach their nominal target population) was replaced by attention to **smallholder** production, giving rise to a significant shift in, for example, the orientation of research and extension. At the same time, however, abandonment of Land Reform implied that this shift would be of marginal significance for many (presumably the poorest of the poor). For the **poorest**, no productive role or assistance has been clearly identified. In this regard, the growing emphasis upon community organization and assistance is somewhat ambiguous. If it provides a starting point for greater integration of the poor into the process of directing activities, it also has embodied a "welfarist" approach —in the form of a relative concentration on social infrastructure and grant transfers. It suggests a desire to indicate to the poor that they have not been isolated from the process of distribution of social wealth, even if little is offered in the way of help to them as producers.

As has been repeatedly indicated, development interventions have become increasingly inter-twined with the political process. In particular, a desire to extend immediate benefits through differentiated lines of sponsorship have contributed to the proliferation of activities and to a certain disregard for both long-term economic viability of interventions and the necessary modifications of the institutional service structure to support

them. Given the major organizational and financial difficulties currently faced by service organizations, this threatens to introduce a prospect of rapid decomposition into a pool of rural patronage with few enduring benefits.

The sad paradox of the Northeast is that precisely the conditions which have spawned increased engagement in spreading development benefits to the rural poor have also created tremendous pressures to breach the boundaries of rational, long-term investment. In the transitional process of democratic reorganization this is perhaps an inevitable phenomenon. It remains to be seen whether the political system will be able to transcend the issue of immediate rural mobilization to address the underlying challenges of the Northeast: the threat to system stability posed by a mobile pool of poverty pressing on the gates of the more developed economic zones; and the economic irrationality of unexploited productive potential among a huge number of farmers located in sub-sectors whose underdevelopment in the 1970s came to constitute a major "gap" in the national accumulation process. The sort of intervention necessary to address these challenges is quite different from the rapid distribution of immediate benefits that has come to characterize many contemporary approaches to the problem of poverty, which revolve very much around how the poor might be mobilized on behalf of other interests, and very little around how the poor may leave their condition behind.

The developments described above reflect the emergent imperatives of the "top", and manifest themselves in the incoherence and unviability of "top down" strategies. However, another much more positive dimension of the democratization process is that it has allowed the emergence of more autonomous activities at the "bottom". The parlous condition of state government finances encouraged improvisation and experiment in hundreds of micro-projects in rural communities affected by the drought. Born of necessity, patterns of "participatory planning" evolved to undertake small public works and activities to benefit the community, which drew on the Church, rural cooperatives, trade unions, community associations, student groups, foreign NGOs and government *tecnicos*, especially extension agents and social workers. This experience of community cooperation and self-help revealed alternative "models" and *caminhos* of rural development, generating debate and uncertainty about future directions for policy. These lessons should not be deprecated, especially the realization that the rural poor can benefit from small-scale interventions, which dispense with cumbersome bureaucracies. The State of Ceara, for example, currently is initiating a pilot project in "participatory

planning" in seven municipalities which builds on this experience. This emphasis on community participation and small-scale interventions is paralleled by the work of NGOs, such as FASE, in the field of appropriate small producer technologies. Although essentially only pilot projects, they have the very considerable merit of demonstrating that measurable benefits can be obtained with production-oriented strategies by working within existing constraints to develop sustainable small farmer production systems.

In the present conjuncture, there is an active questioning of past models of agricultural development policy in the Northeast and a willingness to attempt new paths. Contributory factors to this new climate include the limited results of past strategies; the diffuseness of PAPP, particularly the varied experiences of its APCR programme; the land reform settlement projects, and lessons learned in combating the drought. A major difficulty, however, is to determine whether these "pilot" interventions, although effective at the local level, represent anything more than palliatives at the regional level. That is, do these small-scale interventions, often highly community-specific, "add up" to create general replicable strategies to reduce rural poverty? Their high level of self-reliance and self-direction are extremely positive factors in a situation of limited official resources and unclear policy objectives. The fundamental question is how they might be better articulated with official sources of assistance without losing their virtues.

NOTES CHAPTER 5.

- 1) Irrigation projects will not be discussed in this chapter, the substantive issues involved having been raised in Chapter 4. For Emergency Programmes see Appendix 5.
 - 2) In the case of sharecroppers, improved access to resources also did not necessarily lead to improved producer income due to the action of landowners in expelling producers once investments in improved land use had been made (by the producer). This points to one of the fundamental difficulties of improving the conditions of many of the rural poor posed by the system of rural poverty.
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CHAPTER 6
SMALLHOLDERS AND THE RURAL POOR
IN NATIONAL DEVELOPMENT

INTRODUCTION

Until at least the end of the 1970s, neither the food crop sector nor smallholders were foci of development policy. Impelled by the need to service the import requirements of an expanding industrial sector, export agriculture was privileged —while the sector of agricultural wage goods suffered from attempts to contain prices. These attempts concentrated more upon artificial restraints on prices than upon reducing the costs of production. Smallholders and the rural poor suffered from neglect of their area of commodity concentration and the direction of government resources to large-scale producers, a strategy not only isolating large sections of the rural population from positive participation in development, but weakening them in the competition for scarce resources. This policy was sustainable only as long as foreign exchange was available to compensate for inadequacies in domestic food crop production and a dynamic urban economy was capable of absorbing large contingents of rural labour seeking an escape from rural poverty. While it would be incorrect to assert that government sectoral policy was the principal cause of the prevailing rural poverty (a distinction which must be afforded to the system of land tenure), it did very little to alleviate it.

The 1980s have witnessed the emergence of a different macro-economic framework. The crisis of foreign exchange (precipitated by the huge net outflow of capital to serve the external debt) has made it imperative that imports be contained —a policy that has been pursued to the point of critical reductions in the flow of resources to maintain the core industrial sector. In this context, the issue of food imports and domestic production insufficiencies cannot be ignored as an area of potential further import containment —especially as an incipient shift in economic policy towards heeding the demands of labour involves making wage goods a potentially more important element of national consumption. Under such

conditions, revitalization of the food crop sector of agriculture becomes imperative.

Policy in support of food crop production, however, confronts a contradiction: while domestic food production must be increased, production of export crops cannot be allowed to decrease. Indeed, it must increase at the same time. It cannot be part of policy that the large-scale producers in the export sector shift their resources towards food crop production (any further, that is, than the shift precipitated by the crisis of export prices expressing a global change in relative commodity values). It seems inevitable, therefore, that an answer to the food production problem be provided through an expansion of aggregate production. At this point, however, policy encounters another basic contradiction: aggregate and sub-sectoral production must be increased, but the basis of previous expansion (i.e., free availability of large volumes of cheap capital) no longer obtains. Production must be expanded on a substantially less capital-intensive footing.

In a more uniformly developed agricultural system this demand—to increase aggregate production without major inputs of capital—would be an economic absurdity. Increased production would **necessitate** very substantial capital inputs which, moreover, would be subject to diminishing returns—i.e., expansion would require **more** rather than **less** capital per unit of output. In Brazil, however, there does exist the possibility of responding to the demand—through the mobilization of the mass of hitherto neglected petty commodity producers in the agricultural sector. In principle, this sector allows for the expansion of food crop production without detracting from export production, and it allows for high returns to capital inasmuch as its historic "non-capitalization" and the particular labour characteristics of petty production systems offer all the advantages of the beginning of the capitalization process without the onset of the declining marginal returns characteristic of more mature sectors of capitalist production. The very poor performance of this sector in the past cannot be taken as indicative of its potential role. This has been very much the effect of policy, which has "frozen" the advantages to be gained from development of small-scale producers—but not abolished them.

The economic crisis of the 1980s would suggest that dominant urban interests revise their policy towards small-scale rural production, and begin to exploit its potential to contribute to economic stabilization in the agricultural production process itself. They must abandon the tendency to view the small-scale sector as principally a sector for the production of

cheap labour to be employed in the cities only at its current reproduction (rather than historic production) cost. Such a change is suggested not only by its contribution to the production of commodities as outlined above, but also by the changing usefulness of the flow of labour from the rural areas in a period of low industrial expansion.

In a period of vigorous expansion, the inflow of rural labour is absorbed into the productive urban labour force and contributes directly to industrial accumulation through its own labour and indirectly by containing general wage levels. In a period of low expansion, it is not easily absorbed into the productive labour sector and comes to represent a drain on accumulation through its charge on social services (including that part represented by the maintenance of social order), which are already under pressure by virtue of the fiscal crisis of the government sector. In this situation, the interests of urban sectors must be to reduce migratory flows which, given the relatively free movement of labour, can be controlled only by enhancing the relative attractiveness of conditions in rural areas. Indeed, even if other forms of control over labour mobility were feasible, there would be a need to improve rural conditions in order that labour be effectively "stored" pending a new cycle of industrial expansion within which rural surplus labour could resume its historically positive role relative to accumulation.

The need to stabilize the rural population in the countryside, however, cannot be entirely satisfied through social welfare measures involving simple transfers of income. The shortage of government resources suggests that any support given should be essentially oriented to increasing the ability of the rural surplus population (a broad segment of the rural poor) to maintain themselves. In short, avoidance of the manifold social costs of the entry of un-needed labour cohorts into the urban space must involve some measure of amelioration of their condition as **producers**.

Viewed, then, from the perspective of the economic needs of the dominant system of production in Brazil, the crisis of the development model of the 1970s involves the need to rethink the agricultural question. Specifically, the crisis suggests the need for improved exploitation of the petty commodity sector (within a framework of selective development rather than undifferentiated primary accumulation), and support for the self-reproducing activities of the most marginal elements of the rural population. The factors discussed above are entirely unrelated to the effects of political change, and would have emerged without it. None-

theless, the New Republic has added weight to these factors by introducing the needs of the peasantry into the policy equation —to take their place beside non-rural interests in government approaches to the sector.

Precisely the factors outlined above have been the principal motivating factors in the development of smallholder sector interventions in the Northeast in the 1980s —albeit rational pursuit of the objectives has been hindered by the "capture" of development resources by short-term interests reflecting the need to form new social alliances in the transition towards a stable electoral regime (as well as by altogether more traditional forces whose interests are separate from, and long antedate, urban-based concerns).

It is worth noting that the demands placed upon the "smallholder" sector by the crisis are, in fact, twofold. One demand involves the expansion of the production of surpluses for the national market. The other involves "holding" the population pending an upswing in the urban labour market. While it is possible to blur the distinction (as is, indeed, the typical practice) by reference to the common feature of, for example, raising the income of the rural poor, such is not helpful. The distinction expresses a real difference: between those smallholders and/or elements of the rural poor capable of constituting themselves as independent "farmers", making an acceptable income from the sale of agricultural surpluses; and those who are not. This latter group, which is very large, must be seen as destined for eventual integration into higher productivity sectors as wage labourers. For these, independent agricultural activities can be seen as simply means of supplementing income until such time as more attractive options appear. While their production may make some minimal contribution to alleviation of the imbalance between domestic supply and demand of foodstuffs, its principal structural significance lies in its influence over the offer of rural labour to the urban labour market (especially in times of industrial stagnation).

It can be argued that general agricultural policies (and special development programmes) have not given much sustained support to either group. However, there has also been a failure to clearly conceptualize project interventions and criteria of "success" in terms of the differentiated character of the rural poor. In this respect, observations that the "poorest of the poor" have not benefited from smallholder sector interventions may be beside the point in that this group simply may not be able to benefit from activities designed to significantly increase productivity

and income on the basis of independent production. The conceptual confusion has led to a lack of adaptation of the design of interventions relative to the potential of different groups thrown together under the general rubric of "rural poor" —necessitating a high rate of failure, and tarring all smallholder-oriented activities with the same brush (i.e., of quixotic social welfarism). In fact, there are significant groups within the rural poor that can benefit substantially from interventions oriented to on-farm investment. By the same token, there are other groups that cannot. This, however, does not mean that different types of intervention cannot help the latter group improve either their current conditions or their future prospects somewhat while they await stable integration into other sectors of production. It does mean that both appropriate interventions and the level of expectations must be different.

The dividing line between these two groups must frequently be ill-defined, yet the difference is real. It does not reflect "character" or innate ability. It principally reflects the system of land tenure. Were there to be a truly significant Land Reform in Brazil (particularly in the Northeast), it is conceivable that huge sections of the rural poor would have the potential to become viable farmers making a decent living from their independent production—even in zones with poor natural resources, and notwithstanding droughts. Such a situation appears unrealizable. The fact of the matter is that very many of the rural poor simply have insufficient secure access to land to offer the minimum conditions for the transition to more capitalized agriculture. Some do have such access. These may make the leap to substantially more productive activities. The others cannot. For these people, the means of substantially improving their lives and participating in the overall expansion of national wealth lie elsewhere. In the short term it may be in the interest of this group and of the leading elements of urban society to strive to exploit the limited opportunities for the rather marginal productivity gains afforded by their condition. But this should not be confused with the creation of a viable smallholder sector.

These different realities have very direct implications for those concerned with the alleviation of rural poverty. There is no **single** package for the poor. Those with significant landholdings can absorb quite different sorts of assistance than that relevant to the landless and near-landless. It is inevitable that assistance will lead to growing social differentiation. At present the **Income** differentiation between the landed and the landless may not be so very great—because the former do not have the means of exploiting their assets. The provision of such means

will necessarily give rise to an increasing income gap. Those interested in improving the situation of the rural poor will have to accept this phenomenon. The alternative would be deliberate depression of the income of groups who are currently "legitimate" members of the rural poor. It would also be in direct contradiction to a growing systemic requirement to give assistance to the poor not because of their needs, but because of the needs of the general national growth process. Placing obstacles to this in the name of equity would be misguided, indeed, for it is precisely in the continued expansion of urban sectors that the ultimate salvation of many of the poorest of the poor lies, an economic and social fact recognized implicitly by the nearly thirty million who bade farewell to the countryside in the migration of the 1960s and 1970s.

Agricultural Development and the Rural Poor: A Perspective

The creation of a modern agricultural system based on large-scale production during the 1970s involved a frank inattention to small scale producers (except in the special case of the Northeast). If they are to be strengthened as contributors to national food supply (which a sober economic analysis suggests they should) or as a "holding ground" for labour to be eventually supplied to the urban system, specific steps must be taken to overcome their effective exclusion from the services that contributed decisively in the past to the rapid expansion of capitalist agriculture proper.

Current thinking in government is that the agricultural sector is now "mature" —in effect, that it is no longer composed of "infant industries" requiring special protection and support. Thus, there has been substantial reduction of subsidies (particularly subsidized credit), reflecting the proposition that the sector is capable of competing with other sectors on an equal footing for the resources needed for expansion. While such a view is perfectly comprehensible as a pragmatic response to the severe shortage of government resources available for sectoral assistance, it does not accurately reflect the "state of the sector". As has been indicated throughout this report, the agricultural sector as a whole has become increasingly dualistic, with the "maturity" of the large- and medium-scale sector standing in violent contrast to the undevelopment of the small-scale sector. While it makes eminent sense to reduce support (especially subsidies) to the large-scale sector (which is not only mature but, arguably, "overdeveloped" relative to comparative advantages), for the

maturity of the agricultural sector as a whole to become a fact there should be an **increase** in support to the small-scale sector. This in no way necessitates the continuation of direct subsidies. On the contrary, subsidized services merely serve to draw the attention of more socially influential elements, creating enormous difficulties for effectively targeted delivery of assistance. The point about assistance is less that it be subsidized than it be **accessible**.

This is particularly important in the case of **credit**. Among those sections of the smallholder population with some potential for significant on-farm improvements in production and income, it is inevitable that substantially increased capitalization will be necessary. It does not appear that they have enjoyed the appropriate level of access in the past. The situation may be alleviated by a fall in competition for official credits as subsidies are abolished, but this advantage may be eliminated in the anticipated general contraction of official credit. It seems inescapable that adequate service to the need of potentially "emergent" smallholders will require three types of development in the field of official credit: (a) the designation of specific funds for smallholder development; (b) establishment of criteria of eligibility effectively prohibiting a significant level of appropriation by larger-scale producers or operators for whom agriculture is largely a subsidiary activity; and (c) a system of distribution capable of effectively "reaching" producers with **relatively** small individual finance requirements.

The first two points above essentially involve the creation of a "reserved" area of finance for small-scale producers. The issue of eligibility criteria is particularly important. The greater part of rural credit is channeled through the Bank of Brazil. As indicated in Chapter 3, the Bank of Brazil recognizes four size categories of rural borrowers—including a "mini" category. The mini category is insufficiently precise if it is to be used as a dedicated channel: the gross agricultural income ceiling is quite high, and there is no apparent specification of eligibility relative to **total** household or enterprise income. The criteria for assistance in many Northeast development projects oriented to the poor appears to be a more effective specification for targeting to producers on the brink of a shift into more productive farming. (1) However, the fact that there are a large number of small farmers outside the Northeast (and outside the ambit of development programmes even in that region), as well as the relative instability of special programmes, suggests that these criteria be embodied in regular nationwide activities.

Just as critical as the nominal availability of funds for small-scale producers is the development of a system of distribution. In the Northeast in particular, small-scale operators have received quite a large number of loans through the existing public banking system. It is evident, however, that the high transaction costs involved in small-scale loans have constituted a limiting factor in the provision of services—a phenomenon by no means peculiar to Brazil. While it is conceivable that the problem could be resolved by decree, as it were, an enduring solution must involve reduction of transaction costs involved in individual loans.

As elsewhere, a solution is offered, at least in principle, by the development of low-level credit distribution systems passing on funds from the wholesaler, and engaging beneficiaries in administration on a largely unpaid basis. Credit unions or producer credit associations offer some possibility of providing these services, albeit these have not been well developed in Brazil, particularly among small farmers and the poor (in general, the cooperative system involves quite well developed commercial operators). While such are unlikely to provide a framework for intensive, high level capitalization, they may provide a necessary "stepping stone" between lack of access to formal credit and full qualification as a viable (and welcomed) commercial borrower.

It must be emphasized that the crucial question of credit flow is the organization of access on terms sustainable by lender and borrower. The World Bank may be quite correct in seeking to promote a unified national credit market by reducing or abolishing subsidies (general and particular). The lacuna in this approach, certainly from the perspective of encouragement of petty commodity production, is that it makes no reference to overcoming the distortions in credit allocation arising from differential distribution costs—which constrict the access of the petty commodity producer to capital in spite of the fact that returns to capital in this sector are potentially higher than among larger and already "modern" producers.

Compared to the issue of practical access, the question of interest rates is secondary (especially as it is certain that all official rates are lower than those levied by more accessible "informal" credit suppliers). There can be no argument that those farmers taking significant sums of credit to substantially increase productivity and income should not pay positive interest rates. Indeed, it can be argued that payment of a rate somewhat **above** the prevailing commercial level might be beneficial to small producers if it served to overcome the evident reluctance of formal credit

institutions to engage in small loan operations. It has been observed that small farmers are currently averse to taking indexed loans with a positive interest charge. However, it is almost certainly the case that this represents resistance to the mechanics of indexation in a highly inflationary context rather than to positive interest rates *per se* (which the poor are well accustomed to paying in their dealings with "informal" financial and commercial intermediaries). Recent experiments to circumvent this difficulty through credit in kind and loan indexation to a commodity basket cannot be taken as a particularly viable response to the problems of credit in a context which has verged on hyper-inflation, least of all in relation to the major credit suppliers. A solution to this problem in rural areas must await a general stabilization of the monetary structure.

The general issue of the supply of credit to the "rural poor" must take into account the **internal** differentiation of the group. "Emergent" farmers, whose current income expresses lack of access to the means of productivity enhancement rather than an absolute lack of control over basic productive resources (principally land), may be served by more or less conventional financial institutions and practices. They will require significant amounts of short- and (particularly) medium-term capital, and they will possess collateral to offer as guarantee (see below). The situation of the more definitively sub-marginal producers is different. Their requirements will involve rather small amounts of short-term (seasonal) capital, and they will have few individual assets to offer as guarantees. The difficulties of accommodating this sort of need within regular financial institutions are considerable, and it is inevitable that this group (which represents the "rump" of rural poverty) will be able to gain access to credit in a regular fashion only within the framework of social development activities oriented towards the formation of relatively homogeneous associations.

On a *de facto* basis provision of smallholder credit has tended to be affected as much by regional policy as by sectoral criteria. Thus, the Northeast has benefited from considerable (albeit not commensurably effective) attention to credit provision—but small-scale producers elsewhere have not received a comparable level of explicit attention. A rational approach to mobilization of the small-scale sector would involve a reduction of the level of exclusivity of the emphasis upon the Northeast (where the strong representation of sub-marginal operations has tended to create the image of all petty commodity producer oriented activities as economically unjustifiable). This would involve shifting the grounds of activities away from politically explosive misery (which does not encourage

a long-term perspective on productive development) towards economic potential, which is not greater among the smallholder of the Northeast than elsewhere (and may even be less).

Credit is not the only solution to the phenomenon of rural poverty in Brazil—certainly not for the poorest of the poor. Moreover, its contribution towards increasing productivity and income is conditioned by the limits of **technology**. Just as in the area of credit, research and extension oriented to small-scale producers has not been adequate in the past—at least until the mid-1980s (in the case of extension). While the overall provision of credit is certainly under pressure as the result of the fiscal difficulties of the government, there are indications of the likelihood of **serious** deterioration in the extension area (albeit not necessarily in the case of research). This is likely to affect small producers the most inasmuch as larger scale operators have the possibility of recourse to commercial sources of technical assistance and input supplier support. The prospect of the withdrawal of the federal government from support to state level extension agencies must be viewed with the gravest misgivings, at least in the absence of any coherent alternative scheme for providing technical assistance.

The dramatic reduction of the scope of EMBRATER as a channel for federal assistance to extension services clearly creates the likelihood of increasing differentiation among EMATERs. More importantly, it exposes this technical service to the severe budgetary problems of state governments—and, perhaps, to an even higher degree of administrative discontinuity. None of these developments will improve on services whose record of assistance to small producers is already poor. In the medium and long term, it has to be assumed that some financial formula will be arrived at to maintain some federal support for extension activities—even if only within a programme/project frame. Equally, some sort of discipline will be arrived at in terms of preserving the technical role of extension agents. The need for this is self-evident. Without finance and discipline the extension services in many areas will not constitute even the germ of an effective input into productive activities.

In fact, two major issues confront the extension system: the need for material support; and the need for enhanced relevance to smallholder producers. These are not necessarily separate questions. Financing the extension system directly from government funds involves limited accountability to the producer and, objectively, has exposed the services to transitory policies destabilizing organization and "message". This is

particularly the case for the "poor", who have no access to commercial alternatives, and whose **direct** social influence is minimal. Given these conditions, it seems inescapable that the development of effective extension activities must involve greater formal control by producers over services provided for them. At the same time, the parlous state of government finances, and the extreme vulnerability of all rural services in a period of severe budgetary restraints, suggests that producers contribute to the cost of the services they consume, i.e., the extension service should be partly directly financed by producers, who will thereby exercise a higher level of direct control over assistance provided. (2)

Reference was made in Chapters 4 and 5 to the evolution of pilot activities (principally in the PAPP) linking producers to extension and research services in a more "interactive" system of communication. These are extremely positive developments (in a qualitative sense), but they are, in a sense, "voluntaristic" and, paradoxically, maintain the faults of the existing structure, i.e., they depend upon the decision of **government**. In these activities, improved response to producer interests does not arise out of the effective control wielded by producers themselves. The question of the locus of **control** is fundamental. And control is often determined by the issue of who pays for the service. While it may appear to contradict the prevailing approach to assisting the poor, it seems evident that the best way of helping the poor receive technical assistance is to allow them to pay for it —by creating a structure in which agents **trained** by state level extension systems are paid (for current services) in whole or part by producers. Only such a relation would provide a **structural** answer to the disarticulation between the producer and the extension service (short, that is, of the emergence of a political bloc of the poor capable of imposing answerability at the directive level).

This relation between producer and extension is already enjoyed by large-scale operators (through influence over the formal mandate of the public extension service, through immediate local influence over the extension agent, or through recourse to commercial alternatives). A similar relation should be enjoyed by the poor. In fact, this is precisely the intent within the "smallholder" sections of the CODEVASF irrigation areas, where the devolution of management to producer committees involves, **Inter alia**, responsibility for selecting (and paying) desired extension personnel. The generalization of such a relation among the rural poor would clearly necessitate the formation of locational groups of producers capable of sharing the cost (or receiving assistance for the same purpose). The basis for this in irrigation areas (where common interests

and incomes are relatively high) is less problematic than in other areas. With regard to potentially "emergent" farmers outside the irrigation perimeters (i.e., the vast majority), there is a possibility that future credit organizations could provide a framework for joint acquisition of technical assistance on a commercial basis. In the case of sub-marginal farmers, however, it is likely that the extension relation prescribed could only be achieved within community development activities introducing finance from the outside: the prospects of a self-sustaining and enduring demand-led producer-extension relation are much greater among those with the potential for full-time dedication to farming and a potentially more substantial cash flow.

As in the case of credit, the organizational problem of provision of technical assistance can only be addressed through the development of user groups of intermediary associations. Again as in the case of credit, it is likely that such associations will have to reflect lines of differentiation among the poor. The emergent farmers have the possibility of sustaining independent organizations channelling technical assistance. The same cannot be asserted with equal confidence in relation to sub-marginal operators, whose cash income from agriculture is likely to remain minimal and whose (necessarily) limited commitment to investment in productivity enhancement necessarily constrains demand for technical assistance (or what technical assistance can offer). Indeed, for this latter group an economizing approach to technical assistance might well involve such alternatives as using the mass media for dissemination of simple messages—which would be a far cry from the farm system approach necessary to optimize income, but which at least would establish a rough commensurability between extension cost and practically foreseeable productivity and output gains. This approach certainly involves a "triage" among the poor, emphasizing more "in depth" assistance to those with possibilities of real expansion of output. However, it is surely irrational to insist upon equal access to a resource which will necessarily be used unequally—especially as the potentially "privileged" group is itself within the rural poor.

Particularly in the Northeast, development of a form of extension organization creating a structural space for increased producer control must also be paralleled by attention to an improved content. It is certainly the case that the mass of smallholders are engaged in traditional food crop production, and service in this area must be maintained and improved. But it is also the case that in many of these crops there are economies of scale—and that smallholder production for the market will

face increased competition from large-scale producers. This is certainly the case in relation to extra-regional production, but the same case can be expected within the region as the Northeast's own **cerrados** are exploited. In this context support for traditional food crop production must be accompanied by parallel support for crop diversification into activities offering less pronounced economies of scale. Without being overly specific in a large region offering diverse possibilities, it appears that two general sets of opportunities offer themselves for small-scale producers: tree crops in the transitional zone; and more intensive livestock in the semi-arid zones. Both of these will involve significant capital investments in the land, and both will require that producers have firm title for the area worked (which, in the case of livestock, will not be negligible). As such, they are probably more accessible to the "emergent" farmer group than to the sub-marginal producers.

The extension services must disabuse themselves of the general category of rural poor to identify differentiated possibilities and requirements. The possibilities for expanding food crop productivity under prevailing conditions are limited, especially for the group concentrating their activities in this area —i.e. very small, insecure and sub-marginal operators. Some gains can be realized on the basis of improved technique, improved seeds, clean cultivars and selective use of fertilizer —but, to repeat, the potential gains are not great, particularly in absolute terms. (3) Such improvements should be pursued, frequently using "off the shelf" techniques. But these should not be the exclusive focus of concern. Passage beyond "disaster containment" must involve attention to more commercially viable crops, even if these will not be accessible to a large group of the rural poor. Treatment of the Northeast as a zone of subsistence oriented traditional food crop agriculture is a sure prescription for the maintenance of poverty. The vision of the region as a dichotomous structure of dynamic commercialism in irrigation zones, and stagnant subsistence production in the rest excludes a possible "middle way" which will not be available to all, but provides an agricultural alternative for income improvement for some —a failure to exploit which may prove egalitarian, but in the form of a community of underdevelopment rather than a community of progress.

The Tenure Issue. If there does exist space for crop diversification and improvement in the Northeast (but also elsewhere), one of the critical conditions for its realization (over extensive areas) lies in land tenure. Significant improvements will require capitalization, and capitalization will require clear title to land —to obtain credit and to allow fixed investment.

In principle, Land Reform would contribute decisively to opening the economic horizons for the rural poor. But this is not the only tenure measure that could affect the rural poor; land regularization and entitlement also have an important role to play. In the period immediately following inception of the redemocratization process, land regularization was deemed at best a weak alternative to Land Reform—and, at worst, a distraction from it. This was possibly the case when Land Reform was still on the political agenda.

Equity considerations aside, land title regularization represents a critical factor in development of small-scale production. The existence of very large numbers of small scale producers operating on their "own" land without proper title, or with legitimate claims to land ownership by virtue of extended occupation may not have been a decisive factor depressing a **traditional** agriculture with few long- and medium-term fixed investments. However, insecurity of title does present major obstacles to agricultural modernization in the small-scale sector. Without secure title, the incentive for investment in land and fixed assets is low—and access to medium- and long-term credit is problematic. Traditional forms of tenure are incompatible with the development of modern productive forces—representing an obstacle to the realization of potential productivity gains. From this perspective, land regularization is important not only to enforce those aspects of land law granting rights to long-term land occupants (an aspect of the process which is bound to encounter strong opposition at the local level from larger landowners), but also for creating the conditions of increased income on **existing** holdings with less problematic claims to peasant ownership. These measures do not promise to overcome landlessness and the concentration of ownership that is so pronounced in the Northeast in particular. It helps those who, as it were, already have—particularly those who are blocked in the exploitation of the potential of their existing assets.

As was indicated in Chapter 5, Land Regularization has received important external assistance in the Northeast (in association with PAPP), albeit its rate of execution has been somewhat disappointing (even when it is considered that such activities are complex and cannot be implemented rapidly under the best of circumstances). There is no reason why support should be restricted to the Northeast. Indeed, any national attempt to mobilize smallholder production must address this at the national level. At present responsibility for land regularization activities rests at the state level—which presents an interesting paradox: while agricultural credit remains in the hands of the **federal** government (or

regional entities such as BNB), the conditions of effective smallholder use of it (land entitlement and extension) are dominated by state-level institutions.

This situation is clearly contradictory. While credit policy implies that agricultural development is a national priority to be supported by national resources, the organization of land entitlement and extension involves subsuming the attainment of national objectives under purely local interests and capabilities. This is, of course, primarily a contradiction in the smallholder sector, and it must be resolved if the sector is to take a place in national development. On a *de facto* basis, the small-scale sector issue already is a national "problem". And its solution will require national interventions. While the desire for decentralization and a certain level of state autonomy must be respected, the reality of economic and social integration suggests that the federal government play a strong financial and administrative role in land regularization and entitlement—that, in effect, it become a major national programme.

Towards a Core Policy. The economic situation of Brazil necessitates that the untapped potential of the smallholder population be mobilized. For the sector as a whole, basic policy should address the three elements discussed above: access to credit, organization of extension, and regularization of land titles. In these areas the smallholder sector is considerably less "mature" than the large-scale sector. The large-scale sector has unproblematic access to credit, has satisfactory extension support on its own terms, and has secure title to its assets. This differentiated maturity indicates that policy should now direct its attention to the smallholder sector, having already created stable grounds of operation for large-scale production.

In a situation of severe resource constraint, the "addition" of a major sector to the sphere of government responsibility for support appears unrealistic. However, the maturity of the large scale sector would suggest that resources previously dedicated to its support be liberated for application to less developed areas of the rural economy. This is particularly the case with regard to credit. If it is, indeed, the case that large-scale agriculture has made the transition to the normal conditions of modern production, then it is extremely hard to argue that it cannot tap the regular commercial market for its capital needs. Given that the channelling of credit to the agricultural sector through government must be principally defended on the basis of development requirements and commercial access problems, the conclusion must be that small-scale

producers be afforded first priority in official rural credit activities —i.e., the small-scale sector must enjoy (some of) the privileges previously extended to the large-scale sector if it is to emulate the latter's performance.

The issues of extension and land regularization are somewhat more complex. In the extension field, the incipient financial crisis of services (coming on top of a deep-rooted institutional crisis) will require additional funding. It is unlikely that such funding will be forthcoming from state-level authorities in the poorer states. It is also unlikely that states with large smallholder populations (typically the poorer states) will promote the sort of institutional reorganization suggested above to increase answerability to producers. Under such circumstances the lack of an effective federal policy cannot but signify a real evacuation of the field of smallholder development. Precisely the same is true of land regularization/entitlement. In essence, a national level economic concern cannot be left to local instruments if those are wielded to respond to only local interests —not least because it is in precisely the areas where smallholders are concentrated that the greatest (non-smallholder) resistance to dynamic change can be anticipated. Active pursuit of the smallholder mobilization option will, then, require the federal government to strengthen its financial participation in development, a process that will not entirely overcome local obstacles, but may contribute to their reduction given local interests in the maintenance of extra-locally supported resource flows.

Special Programmes for Rural Poverty Alleviation. The policy factors raised above are essentially linked to the task of establishing the conditions for the realization of productivity gains by a large group of small farmers who do possess productive assets sufficient to offer (potentially) reasonable returns to labour, but who are "blocked" by inadequate access to basic agricultural services. These producers are frequently extremely poor, but they need not be. While they may be approached under the rubric of special programmes offering fairly conventional benefits, the "special" status of these activities relates more to their "catch-up" character in the context of past neglect —than to social compensation. Especially in the Northeast, however, this group does not represent the majority of the rural (currently) poor.

It is evident that a very large number of the rural poor have insufficient secure access to land to allow them ever to be conceived of as "farmers". Most undoubtedly engage in some form of independent agricultural production, but the majority are forced to seek to sell their labour to gain a minimum household income —and this dependency will

continue whatever agricultural services become available. Objectively, as has been stated above, their future lies in integration into the labour force of higher productivity sectors. From a long term investment perspective, the single most important intervention that could be made to benefit this population is in education—to facilitate their entrance into more rewarding modern sector operations.

In the shorter term this is not sufficient. At present there are very large numbers of the rural poor who are neither (even potentially) viable independent producers nor stably integrated into modern labour markets. On the one hand, the rate of expansion of the urban sector has dropped (and will continue to be limited for some time); on the other, more traditional rural employment opportunities have been affected by the modernization of large-scale production (or the expansion of extensive livestock activities). Whatever the long-term future, in the short and medium term assistance must be given to them where they are, both locationally and economically.

Leaving aside the issue of equity and the problem of poverty *per se*, there are strong macro-economic reasons for addressing this problem in the countryside. Unlike in the somewhat "better off" group of the poor, this population will not make a significant contribution to marketed agricultural output. It is probable that many (if not most) of these households suffer a food deficit, and consequently any increase in output would tend to simply reduce the deficit rather than give rise to a significant surplus. But there are other strong arguments for assistance, which principally revolve around the high economic and social costs of a population inclined towards pressing upon urban services without prospects of stable integration into the urban productive process. Put in simple terms, it is less costly to maintain an underemployed population in the countryside than in the cities, not least because in the countryside they may contribute towards their own subsistence.

This last point is of some importance: *ceteris paribus* assistance to this group as elements of the rural population is economically justifiable up to the point that the cost is equal to the cost of maintaining them in the cities. To the extent that assistance can improve on levels of local income generation, the social cost of reproducing the population is reduced. However, the general economic calculation involved does not necessitate that assistance "pay its own way". Rather, the imperative is that the cost of creating a certain income (e.g., assistance to production) among the poorest of the poor be less than the cost of a direct income transfer giving

rise to the same household income. The economic calculation of costs and benefits of intervention, therefore, should not be measured against "ideal" development measures, but against the concrete alternatives. It is worth dwelling upon this point lest unrealistic expectations be entertained with respect to a population whose structural location leaves very little room for income improvement from direct production. Economic returns to assistance are likely to be low. This is normally justified in terms of the intangible social benefits arising from claims for "raised consciousness" and "increased social integration". However, such appeals to intangibles are unnecessary (and, possibly, counterproductive). The real point is that the alternatives are few.

Any approach to intervention among this group should be informed by the lessons of the past. It has been extremely difficult to gain acceptance for technological development packages; and administrative overhead costs have been unacceptably high. The reasons for the first factor are various, and are dominated by the general problem posed by the land tenure situation for any form of significant agricultural development. However, it is likely that any attempt to offer packaged remedies for poverty will run afoul of the remarkable heterogeneity of social and natural conditions among the poorest of the poor—a category which embraces a wide variety of combinations of amounts of land held, types of tenure, physical location, access to off-farm income, etc. Assistance oriented to the establishment of viable full-time farm units will necessarily have limited impact on this group—and it should be noted that the more the household falls below the viability threshold in agricultural (own-production) terms the more complex (and unstable) the income-generating strategies, and the more difficult the identification of compatible agricultural development packages. Under such circumstances, conventional agricultural development project approaches ("one problem; one solution") are virtually doomed to failure. Indeed, the optimal strategy would appear to involve allowing the intended beneficiaries to define their own "problems" and to formulate their own "solutions" to reflect their specific circumstances.

The need for effective decentralization of decisions relative to the form and content of assistance directly contradicts the high level of centralization and paternalism characteristic of much rural development activity in the Northeast in the past. Centralization has, in fact, been doubly dysfunctional: on the one hand, it has been extremely expensive (involving constriction of the flow of assistance into the hands of beneficiaries); on the other, it has been a structural obstacle to the sort of

flexibility required in a heterogeneous situation. It is evident that an attempt to generate relevant forms of assistance to the rural poor must abandon existing forms of resource allocation, devolving power to much lower levels.

It is also evident that the extremely limited agricultural resources at the disposal of the poorest must involve polyvalent strategies addressing a variety of structural bottlenecks in income generation and retention. It is extremely unlikely that any assistance strategy oriented to crop production **alone** would have a significant impact on income. A more significant income effect might possibly be attained on the basis of action on a number of levels (e.g., crop production, agricultural processing for market and domestic consumption, commercialization), aggregating small increments accruing from improvements on each level. It must be emphasized that this would **not** be the basis for substantial long-term income growth, but it would help maximize returns allowed by the existing economic parameters —and might mitigate pressures to migrate to a depressed urban labour market.

For the poorest of the poor, then, assistance should be oriented towards a variety of activities impinging on real income, and should, as much as possible, be directed from the local level to respond to differentiated local conditions. Given significant social heterogeneity in the Northeast (as elsewhere), control over local resource distribution would optimally be placed in the hands of associations of the target group, rather than in existing administrative structures which must respond to the interests of a broader constituency. This is not an argument for the dismantlement of supervisory structures of assistance, but, rather, for a change in their relation to the target group —passing from control to advice. Simple transfer of funds to local groups would not be optimal without some means of reviewing the viability of investment proposals (either group or individual), just as attempting to promote productive improvements without improved access to extension would represent an irrational strategy. Services should be accessible, but households and groups must be free to choose how to apply resources within broad limits. In relation to extension, for example, the point should not be the presentation of a narrow selection of production **packages**, but supply of information on simple improvements in a wide range of commodities, which producers could combine according to their own circumstances rather than according to external and preconceived ideas of what constitutes an "ideal" combination for a "typical" producer. As in the case of somewhat more privileged small farmers, provision of assistance of this

sort would be vastly improved if groups of the poor had some role in financing technical assistance, if only through passing on external financial support.

Effective assistance to the poorest of the poor which is "demand-led" will inevitably involve channelling funds directly to households and groups—to allow them to "buy-in" public and commercial services and goods. Households will require access to funds in small amounts (corresponding to real absorptive capacity), while groups will require rather larger amounts, reflecting opportunities for individual benefits accruing from collective investments in, for example, trading and processing facilities. Given the extreme poverty of the target group and the admittedly limited opportunities for incremental income generation, there is a temptation to put this funding within the framework of subsidized credit or grants. While it must be recognized that economic return objectives should be modest when dealing with extremely marginal groups, financial support should be primarily extended on a credit basis (to avoid grossly irrational allocations arising from grant contexts), and positive rates of interest should be sought (not least to minimize competition with more privileged groups for a scarce resource).

It is unlikely, however, that flexible credit for the "poorest of the poor" will ever be directly handled by existing commercial or public financial institutions. The extremely small size of loans to individuals (and lack of loan guarantees) as well as the inherent uncertainties in group loans suggest a certain level of incompatibility with normal financial operations, making the development of special, targeted credit lines an absolute precondition for development of access—as well as a programme-based distribution/evaluation mechanism between financial institutions and ultimate recipients. While it would not be advisable to put financing on other than a credit basis, the likelihood of financial losses in an uncertain environment would have to be anticipated—and this is one of the dimensions of support that might be implicitly subsidized. That is, while individual (or group) borrowers should be held accountable as much as possible for debts they incur, individual borrowers should not be made to pay for the risks involved in lending to the poor as a whole. Given that the marginality of economic existence of the poor is very much owed to social causes, there is a certain argument for having the national economy rather than the poor absorb the risk of financial losses in extending credit to them. While limitations upon official resources raise the general problem of subsidization, the net impact of what amounts to government loan guarantees could be held to acceptable levels by re-allocation of

funds currently heavily committed to the administration of poverty rather than its direct alleviation.

Overview. The problem of rural poverty in Brazil is composed, in fact, of two problems. There is, on the one hand, a large group of small proprietors whose income (and contribution to national food supply) has been depressed by lack of access to "normal" agricultural support services and poor prices for basic foodstuffs—but who represent potentially efficient and viable full-time farmers. On the other hand, there is, in the Northeast in particular, a much larger group of small-scale producers with insufficient secure access to basic productive inputs to allow them (under present tenure conditions) ever to be part of a stable, modernizing farming community. While it may not in some cases be easy to assign any particular farm operator to one or the other category, the distinction is essential. The first category may remain in agriculture in the medium and long term and may be able to respond positively to significant credit and service inputs. Their requirements are fairly conventional, and can be satisfied by a certain reallocation of government credit resources and reorganization of the producer-extension relationship. From a macro-economic point of view, assistance to this group must be considered a high priority in view of the increased need to guarantee national food self-sufficiency.

The second group, who may be termed "sub-marginal" farm operators and the effectively landless, represent an entirely different problem. They will not make a significant contribution to marketed output, and, in the longer term, they will probably not remain in the agricultural sector as (part-time) independent producers. In this area assistance must be offered to counter the social effects of extreme rural poverty—not least the difficulties posed to continued migration to urban areas in times of economic depression. Both their limited resources and the likelihood of a labour transfer to the urban sector in the long term dictate that assistance be low in terms of durable fixed investments, and high in terms of spread across a broad range of activities affecting real income. Unlike in the case of the first group, where there is a possibility of eventual "graduation" to regular service through, for example, regular credit channels, this second group will typically have to be served through special programmes with little realistic prospect of recovery of administrative and service overhead costs.

Although these groups are very different in terms of prospects (albeit they may currently be little differentiated in terms of income) and the

respective rationales for extending support, effective assistance to both will necessarily involve an increase in funding (possibly through reallocation from services to more mature sectors), a reorganization of official services to increase answerability to "users", and a relative "insulation" of activities from very short term electoral considerations. It must be admitted that the immediate prospects for realization of these objectives are not encouraging: there are intimations of a reduction in the overall supply of rural credit from official institutions; the extension services in particular are entering a crisis situation with regard to both funding and management; and electoral competition is intense. If this situation persists it is hard to conceive of any significant agricultural development among small-scale producers —or income stabilization among the rural poor. On the contrary, the prospect is for a frittering away of significant volumes of resources in an incoherent fashion, with none but a superficial and passing effect —simply exaggerating many of the characteristics of previous unsuccessful efforts. In the context of Brazil's current economic difficulties, it is difficult to ask for an incisive set of interventions in the rural areas. It is not clear, however, that the fruits of refusing to address issues which are increasingly linked to urban stability and growth will be any less difficult to swallow —for either the dominant or the marginal systems of production and social organization.

NOTES CHAPTER 6.

- 1) See Appendix 2.
 - 2) This does not exclude the possibility of credit or grants to producers to assist such payment.
 - 3) For agricultural development possibilities, and their limits, see Appendix 4.
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CHAPTER 7
TOWARDS AN IFAD STRATEGY IN BRAZIL

INTRODUCTION

Notwithstanding impressive overall economic development, rural poverty remains an extremely grave problem in Brazil. In the short term, at least, it is likely to become even more serious as a slow-down in industrial and urban development constricts the traditional "escape valve" of migration from rural areas. Poverty is emerging as a problem not only for the poor themselves, but also for the larger economic system. On the one hand, poverty in the rural areas is indicative of under-realization of productive potential in a situation where it is imperative to maximize returns to domestic resources. On the other, the advantages of a flow of inexpensive labour into urban areas have become entirely problematic as the absorptive capacity of urban structures have been curtailed.

The persistence of a large mass of rural poverty through a period of vigorous growth has been attributable, in part, to past economic policy. For a long period, a premium was put upon industrial growth, with agriculture involuntarily assigned the extremely disadvantageous role of source of capital and labour. In the 1970s, this role changed: at least some sectors of agriculture received incentives to expand in order to serve the mushrooming foreign exchange requirements of a dynamic industrial sector. On the whole, small-scale producers did not benefit substantially in the period of incentives. Credit, technology and the marketing system were not oriented to small-scale and marginal agriculturalists —and the prices of the crops they tended to concentrate in (traditional foodstuffs) suffered from attempts to restrict the growth of the urban wage bill. While Government did little (at least until the very end of the 1970s) to introduce new resources into the small-scale production systems, there were also few steps taken to modify the single most important existing factor shaping the extent and depth of rural poverty —the extremely unequal distribution of stable access to land. Overall, Government did little to directly benefit small-scale producers. Indirectly and unintentionally it did

much to harm them, by virtue of strengthening and transforming the large-scale production systems with which the "peasantry" has been forced to compete for basic productive resources.

The 1980s saw the emergence of a new policy environment. On the positive side, there was increased attention to domestic food crops—which offered the possibility, albeit not the necessity, of improved conditions for small-scale production. There was a reduction of incentives for the expansion of large-scale and capital-intensive agricultural activities. And there was a move, especially in mid-decade, towards strengthening agricultural services for the small-scale sector. These represented **potentially** supportive steps for small-scale producers. On the negative side, the atrophy of Land Reform blocked the viability of an agricultural solution to the plight of a large number of the rural poor. Moreover, at the same time as there emerged increased understanding of the rationale for supporting the small-scale sector, the overall resources available for sectoral development came under increasing pressure as a result of government financial constraints—and those resources that were reserved for development interventions to address rural poverty have been subject to growing incoherence of objectives and administration in the early phases of establishment of a more open political order.

A Rationale for IFAD Involvement

There is a huge number of rural poor in Brazil—whose poverty is absolute rather than relative. Moreover, although Brazil registered strong growth in the late 1960s and 1970s, the current availability of resources to address rural development issues has been seriously curtailed by major problems of government finance linked to the external debt situation. From the point of view of the needs of the IFAD target group, and the current capacity of GOB to attend to them, there is a *prima facie* rationale for expanded IFAD poverty-oriented rural development assistance.

The form of such an involvement, however, is extremely important. Given major financial difficulties and lack of clarity about the location of responsibilities, and in a context of a certain level of incoherence among (and within) smallholder development initiatives, great emphasis must be laid upon collaboration with GOB which addresses clear development priorities in a controlled fashion. The size of the rural poverty problem in Brazil signifies that involvement by IFAD can be understood only as a means of helping clarify effective patterns of addressing the issue—rather

than as a solution in itself. This would not be an immaterial contribution to the amelioration of rural poverty —the problem in the past having been only in part limited availability of funds, and to a much greater extent the lack of precision in objectives and means of attaining them.

Directions for IFAD Engagement in Brazil

It has been argued that there exist at least two major groups among the rural poor in Brazil: those that have secure possession of enough land to allow, with suitable agricultural support, an on-farm income sufficient to give reasonable sustenance to the household; and those whose holdings are so small and insecure as to prohibit, under current and foreseeable technologies and relative prices, the generation of an adequate level of on-farm income —whatever the level of support. This latter group may not be completely landless (albeit many are —at least in terms of absolute property). The first group, that of potentially viable full-time farmers, is greatly outnumbered by the second group (the marginal and sub-marginal), particularly in the Northeast.

The distinction made in the preceding paragraph does not refer necessarily to current income, but to future prospects. The first group may be seen as evolving, with suitable support, to form a stable "farmer" group; the second group may not be seen in this light. For them, pursuit of participation in national wealth will necessitate —short of a major and meaningful Land Reform— eventual relocation into other economic activities. Both of these groups are legitimate targets for IFAD project intervention, but the differences of condition and potential between them absolutely necessitate different approaches to assistance —in terms of objectives, means, and expectations of success relative to conventional development investment yardsticks.

The long history of near landlessness in Brazil, particularly in the Northeast, is not a series of accidents or actions with unforeseen consequences. Agricultural marginalism evolved to provide a pool of labour for the large landowners who exercise such a remarkable level of control over the basic non-labour productive resource. The possibility of the emergence of this group as a mass of independent and self-sustaining (as opposed to indigent and dependent) farmers was not envisaged —and, indeed, the conditions for such a development do not exist. This engineered marginality of a very large number of the rural poor has a very specific consequence: the likelihood of developing modern on-farm

agricultural activities which can make a decisive impact upon the standard of living and are also economically viable is constitutionally problematic.

A cold assessment of this situation must involve recognition that economically and financially viable projects that will be sustained (even at the on-farm level) in the long run are not easily identifiable, which is presumably why so many millions of Brazilians left the rural areas in the 1960s and 1970s. This should not be construed as the (anticipated) failure of development interventions, but, rather, the logical consequence of a structure of land tenure which has been oriented to large-scale, rather than small-scale, production and wealth—and which continues to be so in spite of modifications in the larger-scale systems rupturing that (unequal) symbiosis of land and labour which allowed the near landless a marginal existence for centuries.

In Chapter 6 it is argued that, from a national perspective, acceptance of a low rate of return on rural development activities oriented to the rural poor is by no means economically irrational. The real economic and social threat of continued mass migration into a (hopefully temporarily) saturated urban labour market is clearly perceived in Brazil—as is the rationale for seeking to avert it by significant investments. While external development institutions rightfully seek to avoid drawing governments into unsustainable investments in unviable sectors, they must also be aware of the larger social and economic balance which may well involve the possibility that a certain level of net social transfer in development activities is one of the less (even economically) costly real alternatives in the situation. Naturally, it is best if all rural development interventions can obtain "reasonable" economic and financial rates of return; but that objective should not obscure the fact that it is sometimes better to accept low returns than to do nothing at all.

In approaching future collaboration in rural development in Brazil, IFAD should be informed by two fundamental characteristics of the situation: first, the *de facto* division of the poor into potentially viable and unviable farming groups; and second, the difficulty of gaining reasonable returns on investments (and long-term self-sustainability) oriented to the unviable (marginal/sub-marginal) farming group. The corollary of this is that IFAD should adopt different strategies (and projects) for the different groups. There is an economic rationale for support to both groups of the rural poor (quite apart from equity considerations), but this does not imply either that they be dealt with in an identical fashion, or, indeed, that they be equally addressed within any single development project.

It is argued in Chapter 6 that the requirements of potentially viable farmers and the marginal/submarginal group are different. For example, the former will require substantial amounts of medium- and long-term capital for agricultural purposes, the latter will typically require small amounts of capital on a relatively short-term basis for diverse activities; the former may enter formal credit structures, the latter may require more innovative organizations; the former may need (and justify) quite intense technical assistance in agriculture, the latter not; the former may be the basis of self-sustaining institutions, whereas this may be problematic in the case of the latter. These differences have important implications for project design —specifically, that any project designed with a "bias" towards the satisfaction of one "set" of requirements will typically fail to satisfy the other set. This is not a theoretical likelihood. Quite the contrary, the global experience of agricultural development projects oriented to the rural poor is that they do **not** succeed in reaching the **whole** (internally differentiated) target group.

Conventional projects oriented to the "full time" farmers typically do not reach marginal farmers —they add to rural social differentiation. This is frequently a cause for self-recrimination. It should not be. Objectively, it is quite obvious that activities oriented to the strengthening of full-time farmers can do very little to satisfy the requirements (and fit the conditions) of those who must move backwards and forwards across the farm boundary in extremely complex strategies of diversification of activities to secure an aggregately sufficient income. The lesson to be learned from this is not that it is necessary to develop forms of intervention that serve both interests but that the difference in condition should express itself in differentiated forms of assistance. It is not inconceivable that diverse forms of assistance could be combined within a single project or programme frame, but this raises the spectre of incoherence and the lack of unified objectives and measures of success. In very practical terms, it also gives rise to a proliferation of "collaborating" agencies, coordination among which —in Brazil, as elsewhere— is frequently problematic in the extreme. In the case of IFAD's future operation in Brazil, the limited size of likely individual projects, and the need to reduce the burden of inter-agency coordination would suggest the wisdom of a strategy which approaches one set of requirements at a time.

Areas of Attention

While an appropriate strategy must address "typical" groups, it must also address typical conditions; projects which are designed to enhance income on the basis of interventions reflecting specific conditions must address "specific conditions" (not least physical) which are in some measure representative of the circumstances of a much larger population than the project target group (if projects are to be conceived of as models for replication). Moreover, some account must be taken of the activities of other development agencies—so as to direct energies to areas in which smallholder development issues (and potentials) remain unexplored.

In terms of broad geographical areas for IFAD intervention, there is no doubt that the Northeast is an appropriate location for activities oriented to the marginal/sub-marginal smallholder group. On the one hand, this is clearly the zone of concentration of this population within Brazil. On the other hand, there have been few coherent and cost-effective attempts to come to terms with the group. While rural development expenditures in the region have been very substantial, there are few indications that they have served the marginal/submarginal stratum well, if at all (see Chapter 5). From the point of view of making an important innovative contribution to the generation of replicable models of addressing this particular section of the rural poor, an IFAD operation in the zone must be considered a high priority.

While the poverty of the larger part of the rural population of the Northeast is certainly great enough to justify (and absorb) development investments many times greater than the amount IFAD will have available for operations in the whole of Brazil, a strategy oriented to the generation of models of development must attempt to diversify, to address the variety of typical target groups. In this regard, IFAD should also seek to address the potentially viable small farmer, whose cash income may not be greater than the landless or near-landless.

There is certainly a large number of farmers in this category in the Northeast (albeit the number pales against the mass of "smallholders" who manage or own 5 ha. or less in the Agreste and semi-arid zones). However, IFAD operations in support of this group **In the Northeast** cannot be considered the highest priority. The reason for this lies in the distribution of existing development activities conducted and supported by other agencies. In the brief review of development activities in the Northeast presented in Chapter 5, it was pointed out that they had

negligible impact upon the most marginal farmers. It is arguably the case that their design typically precluded success in the area, but this has not prevented a certain level of success among emergent or potentially viable farmers, a large number of whom have been integrated into the formal banking system and have received technical assistance adapted in some degree to their conditions of production. It is not at all clear that IFAD can add substantially to exploration of means of addressing this group in the Northeast, particularly given the turn in PAPP to increased responsiveness to producers. It is, of course, possible that assistance can be improved, but it is not evident that the innovation that IFAD might introduce would be comparable to that attainable in other areas.

With regard to the potentially viable farmers, IFAD should pursue innovation by locating activities in a different geographical zone which has not benefited from smallholder development activities, but which still represents a major area of smallholder operations. Here IFAD would have the opportunity to establish a clear identity and generate activities which do not merely replicate (to a greater or lesser extent) projects already executed by much larger international donors. It is recommended that IFAD engage itself in the development of small (viable) farmer production potential in the Cerrado zone, which stretches in an enormous arc from northern Minas Gerais, through Goiás (including the Federal District of Brasília) and to the West of the arid zone of the Northeast (including substantial areas of the West of Bahia).

The Cerrado zone (which is described in Appendix 4) is not as "obvious" a choice for IFAD assistance as the Agreste and Semi-Arid zones of Northeast. While it is as subject to extreme concentration of landed property as the Northeast, it is not a zone of dense smallholder concentration. Rather, it has been characterized by the expansion of large-scale, capitalized agriculture (making a heavy contribution to national soy production) without the presence of a large, dependent peasantry, a phenomenon in part determined by the difficulties in using the acidic soils of the region prior to the availability of technology for soil improvement and the capital for its exploitation (the characteristic problem of the Cerrado being not water—as is the case in the Northeast—but soil). To a large extent, then, the Cerrado is a frontier area, albeit one in the process of rapid closure from South to North.

Although the "density" of the smallholder population is relatively low, the aggregate number of small scale producers in the zone is large. No statistical data are disaggregated for the Cerrado zone, but some

impression of the relative position of smallholders is offered by data for the Centre-West, where (in 1985) farm operations of less than 10 ha accounted for 22.5% of farm units, and operations of less than 50 ha accounted for 49.3% of units (but only 2.25% of land in farms).

There are very few extremely small units in the Centre-West, but data on farm size can be extremely misleading: although farms in the 10 - 50 ha range cannot be considered small in terms of area, they are associated with low incomes in as much as they have not benefited from appropriate research and credit support. In identifying the IFAD target group in much of rural Brazil, the issue should be less farm size than income—and it is well established in the Northeast at least that there is no incompatibility between farm units of up to 50 ha and household incomes of less than two minimum salaries (with 0.25 minimum salaries per capita being taken as the poverty line). Throughout the Cerrado zone it is difficult to conceive of less than 150,000-200,000 farm units falling within the less than 50 ha range.

Unlike in the Northeast, IFAD's suggested intervention in the Cerrado zone would be directed to farmers who are currently poor, but who have secure access to reasonable areas of land and have the potential to become stable, full-time farm operators. It would be directed to the emergence of a viable independent group of what locally would be considered small farmers, seeking to make available to this population the benefits previously available to larger farmers (credit, technical assistance, and suitable adapted research)—on the basis of which the latter group have achieved a major increase in the area's agricultural production. The specific rationale for activity in the area is that the target group is poor, but that there also exists a clear possibility for significant increases in on-farm income.

Support for this group would have a double purpose: on the one hand, it would offer a model of development for the small farm sector; on the other hand, success in promoting economically and financially viable development among a group which has the potential to add substantially to the marketed supply of foodstuffs would contribute positively to an ongoing policy dialogue with Government about inclusion of the small farmer within the national food self-sufficiency strategy. It should be clear in this regard that not all poor, small-scale producers can be represented as making a significant contribution in this area. However, it does no dis-service to the rural poor if internal differentiation is recognized at the policy level. This may be the basis of a more secure, long-term commitment to

the development of the group with higher productive potential —and of more relevant forms of support for the marginal and sub-marginal.

The essence of the proposed strategy for IFAD is a pragmatic response to the actual state of things. If the large mass of the rural poor do not have the basic means to become full-time, surplus-producing farmers, then they should not be treated as if they are in project design. If a smaller group of the poor have the capability to absorb significant agricultural assistance, then they should be given it —irrespective of whether this represents *de facto* differentiated treatment. Naturally, in any given case the line between viable and non-viable must be specific to the circumstances, corresponding to the nature of potentially exploitable commodities, physical conditions, etc., but, in principle, differentiation is clear, as is the need to reflect it in assistance rather than to maintain the illusion of the homogeneity of the poor.

There have, of course, been attempts to change the existing conditions of some of the rural poor —through limited Land Reform (relating to conditions of tenure) and some irrigation development (transforming the productive potential of small holdings—and shrinking the size threshold of farm viability). However, there are no immediate prospects of further distribution of land, and irrigation development cannot be considered a solution to the plight of the poor in large areas of the arid and semi-arid zones —either because of insufficient water resources or because of insecurity of tenure. Nonetheless, there is a certain logic in developing a third, lower-priority, strategic line for IFAD in Brazil, and the Northeast in particular —a line which supports existing Land Reform settlements and explores ways in which irrigation opportunities could be better exploited to the advantage of small-scale operators.

Given the current constitutional limits on effective Land Reform, it is evident that Agrarian Reform settlements will not represent a characteristic solution to the problem of rural poverty in Brazil. However, the future prospects for even limited expansion are prejudiced by a severe lack of agricultural development support to established settlement areas, a problem which will become more acute with the abolition of MIRAD, and the devolution of responsibility for settlement activities to the level of the states. From the point of view of development institutions serving the rural poor, for whom endorsement of further Land Reform must remain an essential policy posture, it is illogical to simultaneously espouse the general cause of settlements and fail to give some support to established settlement areas. Equally, there are some opportunities for small-scale,

relatively low-cost surface water irrigation development, exploitation of which urgently requires viable models of development. Given that new settlement areas represent zones of relatively socially homogenous and secure smallholder occupation, these represent, in principle, promising zones for experimentation in small-scale irrigation. Consequently, it is recommended that IFAD seek to identify a number of settlement areas in which irrigation development is possible, with a view to development of schemes with substantially lower cost than the CODEVASF models, and with considerably greater capacity to absorb a meaningful number of smallholder units. Although such opportunities are scattered throughout the Northeast, particular attention may be paid to southern Piauí and Maranhão —zones of pronounced smallholder poverty which also have significant irrigation potential. While emphasis may be placed on new official settlement areas, consideration might also be given to the development of activities on lands leased from large landowners, which might contribute to the replicability of the exercise.

General Project Concepts

The strategy recommended to IFAD thus embraces three major lines of development to establish innovative models addressing more or less typical smallholder situations:

- (a) conventional agricultural development interventions oriented to poor rural households with significant and secure access to land —preferably in areas which have received little development assistance of this type (e.g., the Cerrado zone);
- (b) more diversified and institutionally innovative activities oriented to marginal and sub-marginal producers —preferably in the area of their greatest concentration, the Semi-Arid and Agreste zones of the Northeast;
- (c) investment in low-cost irrigation development in areas of relatively homogeneous smallholder development with significant irrigation potential —possibly in southern Piauí and Maranhão.

It is, perhaps, symptomatic of a lack of experience in consistent smallholder assistance and current uncertainty in the assignment of institutional responsibilities and resources in Brazil, that the Special Programming Mission was not presented with developed proposals for

collaboration in smallholder assistance within a project frame. Suggestions were typically programmatic in character, oriented to a limited number of aspects of the smallholder production system (e.g., the plethora of proposals for support for a variety of types of irrigation which concentrated almost uniquely upon increasing the supply of water over as large an area as possible) without due reference to the organization of the necessary total framework of services, to the sustainability of activities, or to issues of economic viability. Such a situation is clearly consistent with the Mission's analysis of the short-term social problematic guiding many approaches to development thinking in Brazil, where the emphasis inclines towards rapid and widespread distribution of tangible benefits within a (sometimes competing, and very frequently overlapping) variety of programmes under separate and clear institutional and personal patronage.

It is not recommended that IFAD participate in such programmes, many of which give the appearance of ephemerality and practical unviability as means of establishing a secure framework for smallholder development. Emphasis must be placed upon a project frame which offers some possibility of articulating the activities of agencies which often fail to give due recognition to the need to engage the cooperation of other institutions in pursuit of their own particular objectives and programmes. With regard to project proposals, the only very concrete suggestion offered to the Mission by locally responsible authorities was an activity in the Federal District of Brasilia, which had been under tentative discussion with IFAD (PL) for several months. This proposal will be briefly reviewed below in the context of a project proposal for the Cerrado zone. Because of the relative lack of concrete proposals to the Mission, the projects outlined below should be taken as guides for further project identification and preparation rather than as definitive statements of composition and location.

Project for Viable Small Farmers in the Cerrado Zone

As noted above, prior to the Special Programming Mission to Brazil, IFAD had been presented with a proposal to support a project for low-income rural communities in the Federal District of Brasilia. On preliminary review, EE was of the opinion that the project was unlikely to be successful in establishing sustained small-scale income-generating activities (in the context of its peri-urban location); that its location was by no means representative of the conditions of the rural poor in Brazil; that

too much attention was being paid to sophisticated irrigation techniques; and that it was laden with "community" elements of doubtful relevance to the issue of enhancing income. Moreover, it was unclear that sufficient attention was being paid to the problem of appropriate technology development to facilitate cost effective investment in production on difficult soils.

Notwithstanding its reservations about the precise content of the original project proposal, EE was favourably impressed by the commitment of the Agricultural Secretariat of the Federal District to small farmer development, as well as the possibility of developing activities in the region with substantially greater significance for the IFAD target group. Specifically, the Special Programming Mission felt that the initial contact established with the Government of the Federal District could be capitalized upon to provide one of the institutional bases for a re-oriented project which would directly address a number of basic smallholder development issues in the region of which the Federal District is a part (the "Regiao de Entorno" —encompassing northern Minas Gerais, southern Goias and the Federal District). It was further felt that the development of viable forms of smallholder agricultural development in this region (the Southern Cerrado), would provide a model for services throughout the Cerrado zone, smallholders in which, because of a very heavy concentration of smallholder development efforts in the "traditional" Northeast, have received very little special assistance, indeed.

It is worthwhile repeating that the Cerrado zone as a whole does contain a large number of rural poor, but that "micro-fundia" are relatively uncommon. The issue of rural poverty, therefore, is very much connected to the under-exploitation of existing landholdings, which are, in principle, sufficient to support full-time farming activities producing a significant surplus for commercialization.

The objective of the proposed project would be to raise agricultural incomes among rural poor with secure access to adequate land areas in the Regiao de Entorno and Goias, thereby providing a model of sustainable smallholder development for much of the Cerrado zone.

The basic means to be employed involve:

- (a) identification of commodities for viable smallholder production (not excluding non-traditional crops);

- (b) assistance in the development of lower cost means of treating the Cerrado soils, and input recommendations appropriate to the typical scale and financial capabilities of smallholder units;
- (c) assistance in the development of improved systems of technology dissemination;
- (d) assistance in the provision of credit for acquisition of means of production by small farmers; and
- (e) assistance in the development of commercial linkages for small farmers.

The project can be conceived in terms of three major elements: identification of promising crops for relatively small-scale operations and elaboration of lower cost input packages that those used in the past by large scale operators with access to cheap credit (on the assumption that these alternatives are technically feasible, but have been relatively unexplored because of the past low financial cost of capital); strengthening the official supply of required inputs (particularly technical assistance and credit); and organization of producers to strengthen links with official input suppliers and to improve linkages to material input and output markets.

For crop identification and adaptive research, the project can draw upon the support of the EMBRAPA Centre for the Cerrados, which is located in the proposed project area. Taking the project as concentrating upon the Goias/Federal District region, the project would draw, for technical assistance, upon the resources of the respective EMATERs of the Federal District and the State of Goias, while the respective State banks would be used as channels for credit. The only element of organization which does not yet exist is the organization of the producers themselves.

It is recommended that the organization of producers be a major component of the proposed project. It has been argued above that smallholders have had particularly poor linkages with the technical aspects of extension services, and that, in some areas at least, commercial linkages have also been poor. In the current context, it would be unwise to place the entire responsibility for strengthening these connections upon official institutions, necessitating a higher level of positive action by producer themselves. In much of the Centre-West cooperatives have played an important role in the development of medium-scale agricultural

operations, and this organizational form should be extended to smaller-scale operators—who may require **separate** organizations because of their different technical and commercial requirements.

The Brazilian context suggests two major roles for cooperatives of small producers: strengthening relations with suppliers of technical assistance; and developing more advantageous commercial linkages. It has been argued that the EMATERs have had difficulties, and have not been responsive to the technical requirements of small producers. In Chapter 6 it was suggested that the solution to this problem lies only in part in providing the EMATERs with more official funding. As, and perhaps more, important is the establishment of greater level of producer control over extension services. It is suggested that small-scale operator cooperatives could play an important role in this: by acting as the basis for organized representation of small producers in the extension bureaucracy; and by directly contributing to at least part of the cost of the local technical assistance they require (perhaps in the form of direct employment of extension personnel). The latter function is extremely important: if small-scale producers are to be introduced to more capitalized agriculture in agriculturally "difficult" zones, they **must** receive adequate technical assistance. If provision of assistance through the normal "free public good" channels is problematic, then provisions must be made for a "private" buy-in of services. This is the intention in the CODEVASF irrigation perimeters (for small farmers); and the same objective should be pursued in an IFAD project serving relatively homogeneous groups of small-scale producers.

There is a further role of cooperative development in marketing, which is reported to be a major problem for small-scale operators (not least in relation to access to Government reserve purchase schemes). It is suggested that cooperative capacities in commodity storage and grading be developed to improve prices received—albeit this should be approached on a pragmatic basis according to the level of development of "open" local handling capabilities for larger producers.

The project would, therefore, involve a significant investment in cooperative development: in training for management; and in physical capital. This would necessitate the opening of special lines of credit specifically for cooperative entities. However, it is not initially recommended that a group credit approach be adopted for individual on-farm investments. The objective of the project must be to facilitate small-farmer entry into the normal credit system (capitalizing upon smallholder

ownership of land or—in the case of the Federal District— possession of long-term leases), avoiding as much as possible *ad hoc* and exclusively project-based forms of credit organization.

The rationale for the specific form of smallholder development proposed is that forms of organization of medium-scale farmers (cooperatives, individual commercial credit) are **not** inappropriate to small-scale producers (as identified in the Cerrado), but represent a reasonable and viable response to circumstances and possibilities. The objective should not be institutional innovation as much as placing the small scale producer in a position to take advantage of these existing forms—which is basically contingent upon raising production and marketed output. Small-scale farmers have not received much assistance in this regard. Technology has an important role here, and the project would help capitalize upon existing basic research (an increase in the general orientation of which towards small farmers would appear to be indicated by developments in discussions about the third major World Bank loan to EMBRAPA). Credit is also a factor. Indeed, official credit played a crucial role in the expansion of the large-scale production complex. The project would help official institutions to supply credit—not, however, through an "exceptional" credit structure, but, primarily, through provision of resources channelled conventionally on the basis of normal entitlement criteria, with special "earmarking" to ensure that smallholder requirements are, in fact, met.

A Project for Marginal/Sub-Marginal Producers in the Northeast

The operating assumption behind the Cerrado project is that a significant group of small, poor farmers in Brazil have the ability to become dynamic commercial farmers, drawing upon existing services and sustaining their own organizations directed to functional gaps in the official service system. Their poverty is attributable to the fact that few resources (in the Cerrado, at least) have been devoted to assisting them to realize this potential. The project should serve to demonstrate that conventional support activities are economically viable and attractive—from the perspective of tapping a relatively unexploited source of marketed foodstuffs—and that inclusion of this group within normal government sectoral planning is a necessary element of more rational utilization of resources and opportunities in agriculture.

The sort of project suitable for potentially viable farmers, however, is definitely not suitable for the vast mass of marginal and sub-marginal agricultural producers in the Northeast—a group who may be called farmers only at the expense of definitional exactitude. This group, with (more or, typically, less) secure access to below 10 ha of land in extremely precarious productive conditions, are usually agricultural producers, but they are not farmers in terms of full-time dedication to their plots. On the contrary, they are principally dependent labourers of one sort or another, who have resource to very small-scale independent production to supplement their off-farm income. This is not a matter of choice: their income generating strategies are dictated by the complete inadequacy of their agricultural resources to the task of household reproduction. Their holdings are typically too insecure to allow stable access to regular credit; the potential productivity of their holdings is insufficient for them to define their investments in purely agricultural terms; their surpluses are too meagre and erratic to sustain even collective marketing institutions; and their agricultural interests are too limited to justify significant expenditures on technical assistance. This *de facto* marginality from even the possibility of focused agricultural enterprise development is the principal explanation for their effective exclusion from the majority of agricultural development activities in the past.

The extreme poverty of this stratum indicates a strong need for assistance to raise income. Furthermore, although it is unlikely that any expanded agricultural production by the group will significantly contribute to an increase in marketed foodstuffs addressing the national food self-sufficiency issue, the national economic interest in averting the costs of an excessive supply of unqualified labour to the urban sector in a period of industrial slow-down and public financial difficulty has raised the issue of enhancing local income at the policy level—a development further spurred by the opening-up of the political process to popular influence. It is evident, however, that conventionally defined agricultural development projects are not successful in significantly raising income, nor are they sustainable.

It is strongly recommended that IFAD develop a project in the Northeast exploring the possibility of extending meaningful assistance. Unlike in the case of the project for the Cerrados, however, the Special Programming Mission was unable to pin-point an area in which there was sufficient pan-institutional commitment to rationally organized and sustained activity to justify confident pre-identification of a clearly institutionally "located" project. Consequently, the Missions's suggestions

are limited to the **type** of project that might be pursued according to possibilities opened up by the evolution of the political, administrative, and financial situation in the Northeast.

Given that incremental income to be gained from support of any one component of the total income generating strategies of the marginal/sub-marginal producer is likely to be low, and given that this group is also widely differentiated with regard to access to the land resource, assistance to this group must not be composed of a fixed package of benefits oriented to a very narrow range of productive activities. On the contrary, the heterogeneity of conditions in which any single activity (e.g., crop agriculture) is pursued, and the variety of activities themselves dictates that assistance to this group: a) embrace a wide variety of productive activities (by no means restricted to crop agriculture); and b) be extremely flexible with regard to the composition of assistance to allow maximum fit with varied requirements and capabilities. This "diffuseness" of assistance should be conditioned by an understanding that there is no self-evident area of independent productive activities in which the rural poor may establish themselves on a clear comparative advantage basis, and that support must seek to take advantage of local economic niches as more or less transitory opportunities arise —it being further understood that many of these activities may prove to be unprofitable or unsustainable in the medium and long term. Maximum responsiveness to local opportunities may be facilitated by a high level of local beneficiary control over resource allocation.

In terms of directly productive activities to be assisted, both agricultural and non-agricultural pursuits should be addressed, including: crop and livestock production; output storage and processing; output commercialization; artisanal transformation of local raw materials; and general services.

Agricultural Support. With regard to direct agricultural activities, emphasis should be upon the provision of services and inputs directed to improvement of production on the basis of seasonal inputs. Unlike the case of the Cerrados producers, the marginal and sub-marginal producers of the Northeast are typically characterized by insecure tenure, signifying that although there may exist technologies offering substantially improved productivity on the basis of fixed investments, these are not very relevant to the target group —a reality amply reflected in the poor uptake of agricultural improvements by this population in a variety of development programmes and projects in the region. Emphasis must, therefore, be

upon dissemination of inputs such as improved seeds which are viable within an unimproved overall farm context. While there is certainly room for improvement of technical recommendations within a farming system frame, the heterogeneity of farming conditions, and the necessarily limited interest in the dedication of effort to farm improvement (in a context of low marginal returns) must dictate emphasis upon dissemination of proven off-the-shelf technologies relating to elementary inputs and cultivation practices.

It should be noted that the prospects for a **substantial** increase of productivity within such a low-cost, low-attention input frame in a semi-arid environment are not great. The realization of even this slender potential would involve assistance in the supply of small amounts of seasonal credit, as well as the effective delivery of technical assistance. It is clear that the inclusion of such credit within normal commercial channels would be extremely difficult: the small size of individual credits, and the lack of loan guarantees on the part of the farmer eliminates any interest in involvement on the part of commercial institutions. Consequently, any project oriented to such support must envisage the formation of intermediary credit mechanisms guaranteeing repayment of loans to higher-level financial intermediaries, and acting as low-level distribution and collection agents. This stands in marked contrast to the appropriate organization of credit for potentially emergent farmers in the Northeast (and the Cerrados).

Just as the "normal" relation with financial institutions is not viable, so forms of technical assistance would have to be modified to the context. From an economic point of view, the potential output (and relatively homogeneous production mixes) of emergent farmers may justify more or less traditional forms of extension contact—with an attempt to establish extension linkages with **Individual** farmers by agents who are capable of offering "tailored" advice on all components of the productive process. However, an attempt to deal with marginal and sub-marginal farmers **in this way** is not so justified: their actual and potential economic surplus is insufficient to justify the massive expenditures necessary for an effective individual contact scheme to be mounted.

In effect, this reality is well reflected in extension activities: irrespective of formal mandates, the level of individual coverage of very small-scale operators by extension agents in Brazil (as elsewhere) is extremely low. Consequently, an imperative within the agricultural component of a project for the agriculturally marginal of the Northeast is

the development of extension relations which: a) offer a range of extremely simple "messages" relating to utilization of low labour and capital cost inputs and practices; and b) are disseminated not through individual on-farm contacts, but through "mass media" in the broad sense of the term (with individual contacts largely restricted to trials or an individual demand connection).

In concrete terms, the type of project recommended to IFAD would involve, in its agricultural component:

- (a) identification of on-the-shelf recommendations for simple agricultural improvements in basic, traditional crops;
- (b) training of extension agents in these recommendations;
- (c) attachment of extension agents (with incentives) to the project (thus allowing direct supervision of activities);
- (d) development of simple training manuals and simple media presentations (for meetings, radio, television, etc.);
- (e) formation of target group associations (not community associations) which would receive finance from higher level, conventional credit sources —and distribute them in the form of small seasonal credits. (1)

With regard to credit, while it is recommended that associations of the marginal and sub-marginal be formed, and that these receive earmarked credit funds, caution should be exercised in choice of the appropriate form of liability. The extremely marginal conditions of many of this stratum are such that a certain level of default must be anticipated *ab initio*. Given that simple group liability in this context would involve the **probability** that the continued access to credit among the more viable would be restricted by the capabilities of the weakest members of the group, some sort of limited liability would be more appropriate —with losses being made up from an explicit social transfer from government rather than from a punitive rate of interest which would make the poor responsible for their own historic social marginalization.

Exploitation of limited low-cost, low-fixed capital opportunities for the expansion of the agricultural production of the marginal/sub-marginal group can, however, be only part of a strategy of assistance. Given that

direct, independent production can satisfy only a part of household income requirements, assistance should also be given to other areas of income generation and/or expenditure saving.

At the on-farm level, special attention should be given to the possibilities of reducing post-harvest losses. It is often argued that a constraint upon the income of the poorest is the lack of regular commercialization facilities for output. This is almost certainly the case. It is not clear, however, that this can be addressed within a project frame. The typically small and erratic characteristics of the surpluses of small-scale producers suggest that it is not cost-effective to develop specialized handling facilities for the group's marketed output —and that greater economic savings may be effected by improving on-farm storage facilities, which would both increase effective on-farm food availability and reduce pressures to sell output at disadvantageous prices.

Non-Agricultural Production and Training. Pursuing the opportunities for loss/expenditure reduction, provision might also be made for the development of local processing of output for local consumption, e.g., small-scale maize or cassava mills. On-farm processing requires considerable expenditure of time, while commercial processing typically involves selling the raw material cheap and buying the processed product dear, suggesting that there might be a niche for development of local capabilities. It is conceivable that such an activity be developed on a communal basis, albeit the advantages of such an approach (as opposed to development in individual hands) would have to be analyzed in the light of the challenge to economic viability of a situation where consumers may have significant influence over pricing structure.

The basic challenge of a project for this group is the improvement on non-agricultural incomes, which are potentially derived from two sources: independent, petty production; and sale of labour. With regard to petty production of commodities, it should be noted that the extremely concentrated nature of income distribution in Brazil has specific effects. On the one hand, the disposable income of the majority is limited; on the other hand, the minority with significant disposable incomes have sufficient resources to afford quite sophisticated urban goods. The market "space" for artisanal products is correspondingly small. In terms of even local markets, then, the possibility of expansion of artisanal income generating activities would appear to be greater in the case of "non-transportable" services than broadly traded material goods. However, the rural market

for both types of activity is small, necessarily giving rise to sale of labour to others for insertion into larger-scale production processes. (2)

It is suggested that an IFAD project squarely confront these basic characteristics of income generation among the marginal and sub-marginal agricultural producers. In addition to agricultural and agriculturally-related activities such as improved and simplified extension, expansion of small-scale seasonal agricultural credits, improvement of on-farm storage, and provision of better local processing facilities, IFAD should also devote a substantial proportion of assistance to the development of rural vocational (not exclusively agricultural) training oriented to the rural poor, and provide seed money on a credit basis to individual or small group petty commodity production and service supply.

Specifically, then, the proposed type of project would:

- (a) identify local and regional markets for particular labour skills and artisanally produced goods and services;
- (b) strengthen local-level capabilities dedicated to provision of targeted training services to the effectively landless rural population; and
- (c) create credit mechanisms to facilitate initial financing of individual and small group artisanal production and services.

Overall, then, the project would present a diversified profile of components reflecting the diversified actual and potential basis of target group income generation. It would require two sorts of technical assistance input (agricultural and non-agricultural), and would necessitate the formation of a flexible locally directed credit structure capable of extending support to non-conventional activities without the conventional guarantees (i.e., some sort of low-level credit association). It is evident that support for training unqualified rural labour is not without its problems. The vitality of the off-farm labour market over the next few years is uncertain (albeit the Mission does not subscribe to theses of the inevitability of reduced industrial and urban growth), and demands for specific skills are variable. However, two fundamental propositions are indisputable: (a) the income of the poorest of the poor has become heavily dependent upon wage labour opportunities (and this dependence is likely to increase); and (b) education and training have a decisive influence over wages and employment. In this context, support for preparation of labour

for off-farm activities would appear to be a necessary element of strategy oriented to the rural poor, without prejudging whether this labour will find a viable niche as small-scale independent producers or, what is statistically more probable, as wage labour — an issue that will be determined by the overall trajectory of the Brazilian economy, which has not provided a clement environment for either individual or cooperative activities of the very poor in any sector. (3)

It should be noted that this sort of project would involve a number of rather unconventional dimensions. It is likely that aggregate increases in agricultural output of the target group would be limited; there are legitimate doubts that the sort of flexible and exploratory credit operation required would either be financially self-sustaining or susceptible to eventual "graduation" into the regular commercial structure; and there would be substantial outlays on overheads (particularly training) whose benefits would not be expressed in the private output of beneficiaries, but in the production of their employers (hopefully being reflected in salaries received for more qualified labour) —who may not be in the agricultural (or even the rural) sector at all.

The economic rationale for such a project must rely heavily upon the "externality" argument. While projects are typically developed within a location-specific framework, their true costs and benefits should be considered within the frame of their total implications for the fundamental unit of economic account —the national economy. Thus, while the financial viability of a flexible credit scheme may be problematic in narrow terms, losses must be discounted against any benefits to the urban/national economy arising from a reduction in the migration rate (high levels of which have very tangible social and economic costs in a period of low economic dynamism). Equally, while returns to investments in training may not immediately appear in the local economy (especially in agriculture), they may well be significant in other regions and sectors.

The fundamental issue cannot be the local costs and benefits of a particular project, but what constitutes a viable strategy of assistance for the mass of marginal and sub-marginal rural producers of the Northeast. Objectively, their agricultural potential is extremely limited. No project will be able to significantly improve their income on the basis of agricultural development activities. Nor is it likely that many attractive income-generating activities will arise in most rural areas in low productivity zones. Exploitation of existing agricultural and non-agricultural opportunities will reduce immediate pressures towards migration, but, in the long term, their

income will be determined by the terms of their integration into larger scale production processes. The project strategy conforms exactly to these real possibilities: exploitation of the limited local opportunities of the present, while preparing the grounds for superior exploitation of non-local opportunities in the future.

In Chapter 5 it was argued that most rural development interventions in the Northeast had failed to address the needs of the marginal/sub-marginal population. As suggested above, part of this failure must reflect the limited ability of the stratum to respond positively to largely agricultural initiatives. More recently, however, there has been a major, albeit not concerted, attempt to increase the flow of benefits to the poorest —not least by delivering material goods into the hands of local communities and producers. These efforts take two forms: a) a plethora of programmes oriented to distributing agricultural inputs such as irrigation pumps and seeds —without any clear sustaining organizational framework; and b) more organized community development activities such as the APCR component of PAPP. The proposed IFAD project would steer clear of the heavy (and, perhaps, ill-considered) agricultural emphasis and the institutional unconnectedness of the first set of operations, which do not promise to be reliable, long-term factors in the development situation. By contrast, there are advantages to be gained by association with PAPP.

Given that any project in the Northeast will involve inter-institutional co-ordination, and given that such co-ordination is not easily achieved, there is a strong pragmatic argument for developing an IFAD project as part of the PAPP, drawing upon the financial importance of the programme as a whole to achieve a level of institutional co-ordination that might be difficult for IFAD to achieve on its own. However, it is not suggested that IFAD finance a further phase of APCR, which, with its strong "communal" and "grant" orientation, gives the appearance of being a nominal (but not consequential) concession to the poor (and local systems of public patronage) while the main-line agricultural development programme continues with its work of dealing with higher-potential farm operators. A reasonable compromise might be insertion of an IFAD project/programme in the place of APCR within a continued PAPP frame, thus enjoying the benefits of close articulation with PAPP financed services (such as extension and research), without assuming the drawbacks of the APCR approach, which has no clear vision of a strategy for addressing the income potential of the near landless.

The proposal for IFAD differs from both the APCR "line" and some proposals received from state institutions (notably in Bahia) in the Northeast. The latter, because of their association with EMATERs, who have a vested interest in agricultural initiatives and a more conjunctural concern with "community development", tend to be overly concerned with somewhat speculative agricultural potential and group means of achieving it. The Mission was sceptical about both, and recommends strongly that much greater attention be paid to training and individual non-agricultural enterprises, even if this involves delaying activities until a more favourable planning climate oriented to long-term requirements emerges.

Low-Cost Irrigation Development in Homogeneous Areas of Smallholder Production

As explained above, the Special Programming Mission received few proposals that could easily be fitted with a project frame. Nonetheless, a very cogent argument was made that settlement areas under the Land Reform programme required external support if productive potential was to be attained. The logic of responding to this need was elaborated above. Similarly, though irrigation does not present a general solution to the production problems of smallholders, it is clear that models should be developed for more cost-effective and "absorptive" irrigation development in areas where opportunities exist—lest the entire option be discarded on the basis of the high cost of previous schemes.

Given the rather general nature of the arguments put forward for support to Land Reform settlements, and a certain lack of clarity about the institutional location of responsibility for small-scale irrigation development, the Special Programming Mission refrains from detailed elaboration of relevant project, limiting itself to the observation that it would not be inappropriate to address both objectives within a single project—in as much as Land Reform areas present ideal conditions of social homogeneity for targeted surface water development schemes.

Ideally, the project would be located in a region with some potential for quite widespread smallholder-oriented irrigation development, possibly Southern Piauí or Maranhão, and would be oriented to intensive production—preferably of higher value rice varieties. Support to livestock production would be offered through fodder improvement and the supply of rice crop residues. Unlike in the majority of programme proposals for smallholder irrigation received by the Mission, the project would involve

simple gravity irrigation, would receive adequate technical assistance and credit for working capital, and would be user managed. In this regard, the approach to the project would be similar to that adopted in the project for Cerrados —i.e., the development of a conventional agricultural support activity minimizing dependence upon existing official services for farm functioning, but predicated upon the viability of the farm enterprise as a full-time operation (albeit on the smaller areas allowed by greater intensity of land utilization).

Overview

IFAD strategy in Brazil should be oriented to the development of reasonable models of development for typical groups in typical circumstances —without which the possibilities for replication and a demonstration effect are minimal. Taking the long view, there are two distinct groups among the rural poor in Brazil: the minority who possess sufficient resources (principally land) to enable them to become viable farmers with incomes comparable at least to semi-qualified urban workers; and those (the majority —in the Northeast at least) who do not. The task of IFAD with regard to the potentially viable farmers is straightforward. It is to demonstrate viable means of tapping their productive potential on an institutionally and economically viable basis, with the goal of "graduating" them as soon as possible into the orbit of conventional agricultural institutions and policy deliberation. This is the goal of the proposed project for the Cerrados, which is a more or less conventional project expressing the fact that conventional projects have not failed with this group, but have not yet been tried because of a long history of bias towards larger producers and concentration of smallholder development efforts in the Northeast.

The other, greater issue is the fate of the vast mass of marginal and sub-marginal farmers. For most of these, it is inconceivable that agriculture will provide the basis of development in the sense of the emergence of viable modern small-scale systems of production offering a reasonable return to full-time effort. In the long term the able elements of this group will leave agriculture, as they have done in the past. In the short term, this option is not as open as it was —creating the difficult task of providing rural support in full knowledge that as soon as the urban economy revives strongly, the incentives to migration will outweigh any minor benefits arising from the improvement of small-scale, semi-arid agriculture. Faced with the need to provide more or less short-term

support to the smallest producers, but recognizing that the income of this population will be determined outside of the confines of their holdings in the long term, meaningful assistance must be bivalent: it must look to the past, by exploiting all possibilities for increases in petty agricultural production (and reduction of losses); but it must also look to the future by preparing the rural semi-proletariat (for that is, indeed, the nature of the poorest of the poor) for integration into the wage labour force on better terms. Given that the principal asset of this population in facing income generating opportunities is labour, emphasis must be placed upon the development of human capital rather than upon endowing them with physical capital inadequate to the task of competition with the established large-scale capitals of the Brazilian productive system. This is the strategy behind the proposed project for the Northeast, which is based upon the premise that truly helpful interventions will not seek to divert the long-term economic relocation of the poorest of the poor, but will facilitate new forms of economic integration offering possibilities that small-scale agriculture on the basis of insecure tenure and poor natural conditions cannot.

The diversity of conditions in Brazil is such that there are grounds for a wide range of "special" projects potentially benefiting particular groups—and it is in response to such possibilities that the Special Programming Mission offers small-scale irrigation development as an attractive option. However, the significance of an IFAD presence in Brazil will be judged on the extent to which it grasps the big issues. This would take it onto unfamiliar grounds. The poor viable farmers of the Cerrado are not "small" holders. And the thrust of the project of the Northeast must bear some of the benefits outside of the agricultural (and rural) sector altogether. These projects would represent "innovations" to IFAD. The alternative would be to cling to the mythology that has informed much smallholder development assistance in Brazil: that marginal smallholdings are the focus of poverty, but may be the basis of (relative) prosperity. The experience of smallholder development interventions in Brazil is not uniformly supportive of this vision. The innovative challenge to IFAD is not the (impossible) task of building a material bridge between two mythical shores, but of dispelling the myth to form viable objectives consistent with the real present and the likely future.

The dominant vision in Brazil was long of an agriculture with no place for the small producer, with rural assistance constituting little more than an unproductive social transfer. An extremely valuable innovation in this context would be the demonstration that "landed" poor producers have a

role in the dynamic expansion of the sector, and that assistance to the poorest of the rural poor can lay foundations for better future earnings free of more or less hidden transfers and subsidies. Such innovation **does** lie within the sphere of competence of sources of external assistance such as IFAD. Realization of the long-cherished dream generalized agricultural prosperity for the rural masses **does not** lie within the competence of international assistance —being not a problem of strategy of project design, but of Land Reform.

NOTES CHAPTER 7.

- 1) It is particularly important that the development of on-farm activities among the poorest of the poor take cognizance of the needs and possibilities of female producers. Given that a large part of the income of the poorest households derives from off-own-farm labour, women assume broad responsibility for on-farm production, storage and processing. In the provision of support within a project frame attention should be paid to relevance and access to female producers, who represent a significant source of small farm labour and management. While the report has not dwelled upon gender differentiation in rural society in Brazil, gender issues are relevant at the farm level —albeit much less so at the level of the structural factors determining the general form of smallholder development.
 - 2) It is conceivable that there are some localized opportunities for very small-scale non-agricultural enterprise development in rural areas, but rural development efforts along these lines should bear in mind that large-scale Brazilian capital is extremely dynamic and fluid (in the industrial and service sectors, as in agriculture). The conclusion may be that the historical process of economic expansion involves not a displacement of small-scale production from agriculture to industry and services, but a generalized reorganization of production relations in which the mass of the population emerges as wage labour.
 - 3) Cooperatives do play an important role in some agricultural sub-sectors (particularly fruit and horticultural products) in the South and Centre-South. It should be noted, however, that this typically involves rather highly capitalized producers.
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STATISTICAL ANNEX

SECTION I: RURAL POVERTY AND PRODUCTION RELATIONS

Table 1. Distribution of Rural Households in Terms of Per Capita Family Income Measured by the Minimum Wage in 1970.

	Average Family Income	Median Family Income	Gini Coefficient	Shares of:		
				Lowest 50%	Top 10%	Top 5%
Brazil	0.491	0.245	0.594	14.0	49.9	39.0
North	0.428	0.276	0.480	19.5	38.5	27.7
Northeast	0.272	0.175	0.511	17.8	40.6	30.1
Southeast*	0.576	0.286	0.587	14.5	50.1	38.9
São Paulo	0.975	0.476	0.594	14.7	52.0	41.6
South	0.698	0.363	0.582	14.5	48.7	37.6
Centre-West	0.653	0.313	0.604	13.8	52.0	41.0

* Excluding São Paulo

Source: Hoffmann (1988) based on FIBGE, Demographic Census, 1980.

Table 2. Measures of Poverty for the Rural Population in Brazil in 1980.

	(1) Rural Population Below the Poverty Line (%)	(2) Income Shortage as a Percentage of the Poverty	(3) Sen's Poverty Index	(4) % Distribu- tion of the Rural Poor
Brazil	0.513	0.437	0.300	100.0
North	0.456	0.368	0.230	6.16
Northeast	0.688	0.487	0.438	59.00
Southeast*	0.444	0.380	0.227	13.93
São Paulo	0.202	0.280	0.080	3.12
South	0.345	0.370	0.176	11.83
Centre-West	0.407	0.368	0.205	5.96

* Excluding São Paulo.

Source: Hoffmann (1988) based on FIBGE, Demographic Census, 1980.

Table 3. Trends In Rural Employment by Region, 1970-1985.

Region	Rural Labour Force ('000)				% Contribution to Change		
	1970	1975	1980	1985	1970-75	1975-80	1980-85
North	934	1 413	1 782	2 230	17.3	45.1	21.3
Northeast	7 569	8 739	9 333	10 375	43.3	72.7	49.4
Southeast	3 959	4 146	4 312	4 740	6.7	20.3	20.3
South	4 192	4 832	4 392	4 463	23.2	-53.7	3.4
Centre-West	928	1 217	1 345	1 465	10.5	15.6	5.7
Brazil	17 582	20 346	21 164	23 273	100.0	100.0	100.0

Source: Martine (1987) based on FIBGE Agricultural Census.

Table 4. Changes in the Number of Farm Establishments 1975/1980 and 1980/85.

Region	1975/1980		1980/1985	
	Number	% Change	Number	% Change
North	70 966	21.0	91 602	22.4
Northeast	96 097	4.1	370 396	15.1
Southeast	12 185	1.4	108 038	12.1
South	-11 032	-0.9	56 366	4.9
Centre-West	-1 617	-0.6	48 537	18.1

**Changes in the Number of Farm Establishments
under 10 hectares**

North	-4 221	19 514
Northeast	12 913	331 626
Southeast	12 711	68 270
South	-8 864	52 370
Centre-West	-16 380	16 042

Source: Mueller (1987), based on FIBGE, Agricultural Census.

Table 5. Land Distribution In Northeast Brazil, 1975-1985 (percentages).

Size of Farm Establishment (ha)	1975		1980		1985	
	Number	Area	Number	Area	Number	Area
Below 5	58.7	3.2	55.7	2.8	59.4	3.1
5 – 10	11.2	2.3	11.9	2.3	11.1	2.3
10 – 20	9.2	3.8	9.9	3.7	9.0	3.7
20 – 50	10.0	9.2	10.8	9.2	9.9	9.3
50 – 100	4.9	10.1	5.3	10.0	4.9	10.2
100 – 500	5.0	29.7	5.1	28.4	4.5	27.6
500 – 1 000	0.6	12.5	0.6	12.0	0.6	11.7
Over 1 000	0.4	29.2	0.4	31.6	0.6	32.1

Source: FIBGE, Agricultural Census.

Table 6. GINI Coefficients of the Distribution of Farm Establishments in Brazil and the Northeast (1975-1985).

	1975	1980	1985
Brazil	0.850	0.853	0.854
North	0.865	0.830	0.795
Northeast	0.858	0.858	0.865
Southeast	0.754	0.763	0.744
South	0.725	0.735	0.744
Centre-West	0.851	0.840	0.836
Northeast by State			
Maranhão	0.924	0.923	0.920
Piauí	0.895	0.895	0.892
Ceará	0.777	0.772	0.811
Rio Grande do Norte	0.858	0.846	0.850
Paraíba	0.841	0.823	0.840
Pernambuco	0.824	0.819	0.825
Alagoas	0.841	0.842	0.856
Sergipe	0.849	0.843	0.854
Bahia	0.806	0.821	0.836

Source: Mueller (1987) based on FIBGE, Agricultural Census.

Table 7. Number and Area of Farm Establishments by Tenure Groups (1975-1985).

Tenure Group	Number		Area		Number		Area		Number		Area	
	('000)	%	%	('000)	%	%	('000)	%	%	('000)	%	%
Landowners	1 336.7	56.9	92.3	1 440.8	58.9	91.4	1 549.0	55.0	90.6			
Renters	380.6	16.2	2.0	390.1	15.9	2.4	375.3	13.3	1.8			
Sharecroppers	98.7	4.3	0.8	123.7	5.1	2.3	221.2	8.4	1.3			
Squatters	553.3	22.7	4.9	492.9	20.1	4.1	655.7	23.3	5.1			
Undeclared	—	—	—	—	—	—	23.4	0.6	1.2			

Source: FIBGE, Agricultural Census.

SECTION II: AGRICULTURAL CREDIT

Table 1. Value of Agricultural Output and Total Credit to Agricultural Producers and Cooperatives (1969-1987) (constant 1986 Cz\$ billion).

Year	Total Rural Credit	Credit as a % of Agricultural Output
1969	46.7	45
1970	55.6	54
1971	64.8	54
1972	79.7	61
1973	112.4	69
1974	139.0	74
1975	203.0	102
1976	207.9	95
1977	185.5	70
1978	188.7	73
1979	235.1	85
1980	224.8	70
1981	195.0	71
1982	180.8	80
1983	142.6	48
1984	87.1	27
1985	124.1	36
1986	179.8	
1987	145.9	

Sources: World Bank, 1982; Central Bank, Anuario Estadístico de Crédito Rural 1986; Bank of Brazil, Anuario Estadístico 1987; unpublished Central Bank data; and Rezende, 1988.

Table 2. Rural Credit by Type 1969-1987 (constant Cz\$ billion).

Year	Total rural credit	Working capital		Investment credit		Marketing credit	
		Cz\$	%	Cz\$	%	Cz\$	%
1969	46.7	21.7	46	13.1	28	11.9	25
1970	55.6	24.8	45	15.1	27	15.7	28
1971	64.2	28.0	44	18.9	29	17.3	27
1972	79.7	33.2	42	26.3	33	20.1	25
1973	112.4	48.0	43	37.2	33	27.2	24
1974	139.0	62.6	45	42.1	30	34.3	25
1975	203.0	89.0	44	63.4	31	50.6	25
1976	207.9	87.7	42	67.4	33	52.8	26
1977	185.5	87.7	47	45.0	24	52.8	29
1978	188.7	90.0	48	47.1	25	51.6	27
1979	235.1	118.2	50	58.7	25	58.1	25
1980	224.8	127.2	57	42.2	19	55.4	25
1981	195.0	114.3	59	30.1	15	50.5	26
1982	188.8	121.5	64	24.7	13	42.6	23
1983	142.5	88.6	62	23.8	17	30.1	21
1984	87.1	61.4	70	10.7	12	15.0	17
1985	124.1	88.3	71	16.1	13	19.8	16
1986	179.8	99.7	55	59.3	33	20.7	12
1987	145.9	102.9	70	24.9	17	18.9	13

Source: Rezende, 1988, based on Central Bank data; unpublished 1987 Central Bank data, deflated by IGP-DI (Fundação Getulio Vargas).

Table 3. Distribution of Agricultural Credit by Region (by value of loans) (per cent).

Region	1976	1984	1985	1986	1987
North	1.73	1.60	1.32	1.82	1.61
Northeast	13.57	13.69	14.62	14.20	13.69
Southeast	35.70	30.96	26.24	28.23	27.10
South	37.43	40.75	41.57	37.63	39.08
Centre-West	11.62	12.99	16.26	18.12	18.50
Brazil	100.00	100.00	100.00	100.00	100.00

Source: World Bank, 1984, p. 55; Central Bank, Anuario Estatístico do Crédito Rural 1986, p. 358; and unpublished Central Bank data.

Table 4. Rural Credit and Agricultural Output in the Northeast (in constant 1986 Cz\$ 1 000) (per cent).

Year	Northeast share of rural credit	Northeast share of agricultural credit	Credit/Output Ratio	
			Northeast	Brazil
1970	10.77	23.69	20.86	45.88
1971	12.98	30.17	19.32	44.93
1972	12.21	26.69	22.23	48.58
1973	11.45	29.99	20.85	54.60
1974	11.59	24.44	28.56	60.25
1975	12.71	24.48	43.53	83.84
1976	13.57	24.17	39.18	69.80
1977	12.74	20.16	32.55	51.50
1978	13.07	23.78	34.50	62.77
1979	14.01	25.74	40.72	74.81
1980	16.63	24.87	46.62	69.73
1981	18.51	27.42	47.68	70.65
1982	14.39	36.00	32.02	80.12
1983	14.25	23.78	28.96	48.30
1984	13.69	29.34	12.82	27.47
1985	14.62	28.24	18.82	36.35

Source: Vieira, 1987, p. 458.

Table 5. Distribution of Crop Credit by Region, 1977, 1979 and 1986 (per cent by value).

Region	Type of Credit															
	Production			Investment			Marketing			Total						
	1977	1979	1986	1987	1977	1979	1986	1987	1977	1979	1986	1987				
North	1	3	1	1	3	5	1	2	1	1	1	0	2	3	1	1
Northeast	12	12	14	12	18	22	17	25	10	11	10	6	12	14	14	14
Southeast (of which: São Paulo)	33	30	27	31	34	26	31	19	35	41	22	17	34	32	27	27
South	44	45	41	37	36	34	32	31	50	41	54	66	44	42	41	41
Centre-West	10	10	18	19	10	13	20	22	4	5	14	11	8	10	18	18
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: World Bank, 1984; and Central Bank, Anuario Estatístico de Crédito Rural 1986 and unpublished Central Bank data.

Table 6. Distribution of Rural Credit by Source and Function: 1976, 1986 and 1987 (per cent).

Type of credit Institution		Total credit	Operating (working capital)	Investment	Marketing
Total	1976	100.00	100.00	100.00	100.00
	1986	100.00	100.00	100.00	100.00
	1987	100.00	100.00	100.00	100.00
Federal banks	1976	64.90	76.91	67.54	41.52
	1986	62.74	72.54	37.90	83.48
	1987	81.77	81.58	76.28	90.16
State banks and others	1976	11.90	8.55	17.06	10.91
	1986	11.62	10.24	17.20	4.02
	1987	6.06	8.94	10.02	1.31
Private banks	1976	23.20	14.55	15.40	47.58
	1986	25.59	17.22	44.74	12.95
	1987	10.08	9.51	13.69	8.36

Sources: World Bank, 1984, p. 52; Central Bank, Anuario Estadístico de Crédito Rural, 1986, p. 20; unpublished data from Central Bank.

Table 7. Northeast Rural Credit by Source 1964-1986 (constant 1986 Cz\$ billion).

Year	Bank of Northeast (BNB)	Bank of Brazil (BB)	Other banks	Total	% BNB	BB	Combined % BNB & BB
1964	0.3	3.2	0.9	4.5	7.2	71.2	78.4
1969	2.2	5.1	3.1	10.4	20.9	49.2	70.1
1975	5.5	28.9	4.4	38.8	14.2	74.5	88.7
1979	6.1	35.9	3.2	45.2	13.5	79.4	92.9
1980	6.1	33.5	4.9	44.5	13.7	75.3	89.0
1981	6.3	29.5	3.6	39.4	16.1	74.8	90.9
1982	5.7	23.7	2.4	31.8	17.9	74.6	92.5
1983	4.9	12.9	1.9	19.7	24.8	65.4	90.2
1984	3.8	7.7	1.1	12.6	29.7	61.2	90.9
1985	2.3	10.7	1.7	14.7	15.4	73.1	88.5
1986	1.5	13.2	2.0	16.7	8.9	78.9	87.8

Source: Vieira 1987, p. 440; based on data from Central Bank BB and BNB, reflat by IGP-DI (Fundação Getulio Vargas).

Table 8. Official Agricultural Credit by Source (1986-1987) and Projected Changes (1987-1990) (current prices).

	1986 (Cz\$ million)			1987			Projected Real Change 1987-1990 (In %)		
	Comput- sory appli- cations	Govern- ment resources	Total	Comput- sory appli- cations	Govern- ment resources	Total	Comput- sory appli- cations	Govern- ment resources	Total
Banco do									
Brasil									
Seasonal	10 478	59 967	70 445	51 202	175 195	240 697	-10	-15	18 -12
Invest- ment	4 282	11 697	15 979	2 854	7 110	46 584	-80	-80	24 2
Marketing	4 387	14 254	18 641	3 237	50 406	53 643	-10	-15	0 -15
Other Federal									
Banks									
Seasonal	183	1 034	1 217	1 364	1 137	2 501	-10	-15	- 5
Invest- ment	292	790	1 082	756	3 698	4 454	-80	-80	- -31
Marketing	35	0	35	168	7	175	-12	0	- -12
Other Banks									
Seasonal	20 251	2 317	22 568	49 687	1 851	51 538	-10	-15	0 -10
Invest- ment	20 234	248	20 482	11 516	6 316	17 832	-80	-80	0 -80
Marketing	371	2 786	3 157	3 317	49	3 366	-10	-20	0 -10
Total	60 513	93 093	153 606	124 101	245 769	420 770	-19	-19	27 -14

Source: World Bank, 1988, p. 24-25.

Table 9. Evolution of Real Interest Rates for Rural Loans in Northeast and Brazil.

Year	Average Real Interest Rate (% per annum)	
	Northeast*	Brazil**
1964	-42.78	-41.7
1965	-30.85	-29.2
1966	-21.47	-19.6
1967	-15.37	-13.5
1968	-13.15	-8.5
1969	-4.86	-5.9
1970	-4.13	-4.3
1971	-5.84	-4.5
1972	-5.37 (-3.24)	-2.7
1973	-3.58 (-1.23)	-0.9
1974	-13.38	-11.3
1975	-13.32	-10.5
1976	-22.30	-19.0
1977	-21.58	-19.0
1978	-18.54	-16.4
1979	-21.05	-24.1
1980	-35.20	-34.6
1981	-37.20	-37.3
1982	-31.48	-30.5
1983	-47.32	-24.0
1984	-56.83	-3.0
1985	-47.22	-0.5

* BNB interest rates deflated by IGP-DI (Conjuntura Económica).

** 1964-1980 figures from da Mata, 1982; 1981-1982 based on Nogueira *et al.*, 1984; 1983-1985 figures from Rezende, 1987. All deflated by IGP-DI (Conjuntura Económica).

Source: Vieira, 1987, p. 443; Rezende, 1987, p. 147.

Table 10. Distribution of Rural Credit by Farm Size 1970-1980.

Area (in hectares)	% of Rural Credit (by value)			Product/Loan Ratio (constant Cz\$ March 1986)		
	1970	1975	1980	1970	1975	1980
0 — 5	2.3	1.3	2.0	26.0	23.5	15.3
5 — 10	3.2	1.9	2.8	14.8	13.6	9.4
10 — 20	7.0	5.1	6.5	10.4	8.3	7.0
20 — 50	14.3	12.5	13.7	7.4	5.2	5.4
50 — 100	11.7	11.0	11.6	5.3	3.7	4.3
less than 100	38.5	31.9	36.6	9.0	6.4	6.2
100 — 200	30.8	32.1	30.6	4.2	2.8	3.5
500 — 1 000	11.0	12.4	11.5	4.4	2.9	3.4
1 000 — 5 000	14.2	16.6	15.2	4.0	2.5	3.5
over 5 000	5.4	6.9	6.2	3.5	1.7	3.0
over 100	61.4	68.1	63.4	4.1	2.6	3.5
Total	100.0	100.0	100.0	6.0	3.8	4.4

Source: Passos and Khan, 1988; data from IBGE "Censos Agropecuarios."

Table 11. Bank of Brazil: Distribution of Crop Credit by Size of Producer in Brazil and Selected Regions (per cent).

Region	Year	%												Total No. of Loans	Total Value of Loans
		Mini		Small		Medium		Large		Total No. of Loans	Total Value of Loans				
		Number	Value	Number	Value	Number	Value	Number	Value						
Northeast	1983	80.55	35.35	15.93	22.96	2.97	22.00	0.55	19.69	625 268	52 855 451				
	1984	74.21	28.61	21.36	33.40	3.53	19.68	0.91	18.31	336 365	34 829 531				
	1985	74.36	28.57	19.64	20.44	4.56	19.24	1.45	31.75	323 334	48 888 337				
	1986	74.10	23.44	17.54	18.24	6.47	22.31	1.90	36.01	317 143	79 416 851				
	1987	82.57	25.51	11.90	15.15	4.13	20.96	1.40	38.38	612 186	63 632 049				
Centre- West	1983	22.40	4.05	43.99	24.85	28.67	45.45	4.95	25.65	85 370	44 197 496				
	1984	16.60	2.29	50.97	29.67	23.00	29.69	9.42	38.36	59 001	34 274 974				
	1985	18.00	2.19	35.49	13.58	33.51	35.91	13.01	48.31	62 367	59 996 187				
	1986	15.79	1.51	29.61	10.02	36.37	29.70	18.23	58.76	87 320	106 375 517				
	1987	12.16	1.17	29.52	7.87	37.47	29.72	20.85	61.24	90 027	88 081 105				
Brazil	1983	62.06	16.71	27.02	26.65	9.28	32.50	1.64	24.14	1 593 257	321 700 215				
	1984	48.08	11.12	38.42	32.01	10.29	26.61	3.20	30.26	1 033 363	239 729 787				
	1985	50.42	9.35	30.90	17.31	14.08	28.00	4.61	45.34	1 090 629	401 586 949				
	1986	47.31	8.84	29.99	16.47	16.77	25.81	5.94	48.87	1 457 425	630 664 991				
	1987	48.78	6.97	28.82	16.46	15.84	28.41	6.55	48.16	1 579 334	463 795 341				

Source: Bank of Brazil, Departamento de Estatística, unpublished data (based on figures valued at constant December 1987 cruzados).

Table 12. Bank of Brazil: Distribution of Total Rural Credit (Crops and Livestock) by Use and Size of Producer, 1987 (percentages).

Size of Producer	Operating		Investment		Marketing		Total	
	Number	Value	Number	Value	Number	Value	Number	Value
Mini	50.42	8.12	28.45	8.68	4.19	0.56	47.34	7.19
Small	29.13	18.13	32.68	21.65	23.46	7.67	29.33	17.16
Medium	14.90	29.46	26.93	44.92	40.53	20.15	16.59	30.02
Large	5.54	44.29	11.94	24.75	31.82	71.62	6.74	45.64

* Figures above do not add to 100% due to exclusion of cooperatives and associations. They are accounted for in the totals.

Source: Bank of Brazil, Departamento de Estatística, unpublished data.

Table 13. Bank of Brazil: Distribution of Rural Credit by Use and Size of Producer — Northeast (percentages).

Year	Operating		Investment		Marketing		Total	
	Number	Value	Number	Value	Number	Value	Number	Value
Mini								
1986	74.54	27.51	56.86	21.38	10.35	0.82	71.44	22.93
1987	81.84	27.57	55.36	16.20	15.72	0.44	80.15	24.00
Small								
1986	17.45	18.65	27.47	27.70	24.34	10.20	19.11	20.17
1987	12.52	16.40	23.28	16.52	18.97	4.40	13.20	16.10
Medium								
1986	6.27	22.65	13.12	30.67	26.98	12.28	7.46	23.68
1987	4.36	21.12	15.66	28.56	30.62	9.25	5.08	22.63
Large								
1986	1.74	31.19	2.55	20.25	38.33	76.71	1.99	33.22
1987	1.27	34.78	5.59	38.54	34.69	85.37	1.56	37.12
Total*								
1986	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1987	100.00	99.87	99.89	99.82	100.00	99.46	99.99	98.84

* Figures above do not add to 100% due to exclusion of cooperatives and associations. They are accounted for in the totals.

Source: Bank of Brazil, Departamento de Estatística, unpublished data.

Table 14. Bank of Brazil: Distribution of Rural Credit by Use and Size of Producer – Centre-West (percentages).

Year	Operating		Investment		Marketing		Total	
	Number	Value	Number	Value	Number	Value	Number	Value
Mini								
1986	16.81	1.71	16.88	2.94	3.20	0.47	16.40	1.76
1987	13.49	1.35	7.75	0.93	2.47	0.11	11.74	1.17
Small								
1986	31.22	8.62	33.31	14.47	17.26	17.55	31.21	10.91
1987	31.86	8.37	26.36	8.17	22.38	6.29	30.25	8.16
Medium								
1986	35.04	32.33	35.93	37.07	42.26	10.62	35.45	30.17
1987	35.71	30.82	41.68	30.85	48.03	20.01	37.58	29.96
Large								
1986	16.94	57.34	13.88	45.52	37.28	71.36	16.94	57.17
1987	18.90	59.39	23.75	59.58	27.13	73.60	20.31	60.57
Total*								
1986	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1987	99.95	99.93	99.54	99.53	100.00	100.00	99.88	99.86

* Figures above do not add to 100% due to exclusion of cooperatives and associations. They are accounted for in the totals.

Source: Bank of Brazil, Departamento de Estatística, unpublished data.

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SMALLHOLDERS AND STRUCTURAL CHANGE IN THE BRAZILIAN ECONOMY: OPPORTUNITIES IN RURAL POVERTY ALLEVIATION is the third in a series of studies planned by the International Fund for Agricultural Development (IFAD) in collaboration with the Inter-American Institute for Cooperation on Agriculture (IICA), with the goal of defining strategies for alleviating rural poverty in Latin America and the Caribbean. This series is designed to broaden understanding of the generation and persistence of rural poverty in the region, and of how the political and macro-economic contexts directly affect the rural poor. The series also presents examples of policies and strategies designed to ameliorate factors causing poverty, to tap the productive potential of the rural poor, and to promote the greatest possible participation in the benefits of a project by the poorest stratum of the rural population.

Brazil represents an important case in Latin America, combining the persistence of poverty in a very large group of rural small-scale producers and landless with dynamism in medium- and large-scale sectors of agricultural production. The issue is how small-scale producers can participate in the process of economic expansion, a question which has become particularly pressing with the weakening of some of the factors that led to the growth of large producers. The response involves an understanding of how agricultural modernization has given new dimensions to the processes generating rural poverty, as well as of the changing structure of opportunities faced by small-scale producers and the landless. Exploitation of these opportunities will require reflection by government upon sectoral policies, as well as upon the design and implementation of development interventions directed to the poor, interventions which, in the past, have involved significant resources, but have produced relatively few significant returns.



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