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PUBLIC POLICIES AND PRIVATE GAINS: INTEGRATED

RURAL DEVELOPMENT IN NORTH-EAST BRAZIL

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ABSTRACT

This thesis considers the pivotal role of the State in the process of agrarian change, through the analysis of a rural development project in North-East Brazil. The analytical model adopted here is *the new institutionalism* approach in development theory. *New institutionalism* emphasises the institutional context within which individuals preferences are determined. In development studies it argues that the capacity of the State to promote equitable development depends, not simply upon the utility maximising behaviour of actors, but also upon the nature of the States own institutions.

To illustrate this argument, this thesis takes as a case study the Integrated Rural Development Project in the Northern Agreste of Pernambuco state. This was one of 43 area-based projects of the larger Programme for the Development of the Integrated Areas of North-East Brazil (POLONORDESTE). It was the major programme implemented by the Brazilian State, designed specifically to raise productivity and income of small farms in the region. This study provides historical information on the way the national and local political environment shapes the State's intervention and its role in agrarian development. In doing this, this study argues that to understand patterns of rural development, scholars should attach greater significance to the capacity for autonomous choice on the part of local level actors, both public and private, in shaping rural development policy.

The information on the policy process and the achievements of the project was provided by unstructured and semistructured interviews, participant observation and informal contacts at project management level and local level, the archival sources of the project and oral histories of participants. The material on household farms was provided by a panel study of 340 sampled farms located in six selected municipalities of the Northern Agreste, undertaken at the beginning and at the end of the project. This analysis examined some of the transformations taking place in the Northern Agreste farming activities under the

impact of State intervention and how the benefits of development policy were distributed among different classes of producers. It also examined economic and political interactions resulting from State action at local level. The limits and possibilities of peasants raising their standard of living are investigated, according to an analysis of their livelihood strategies and the support given by the project.

The main conclusion of this thesis is that integrated rural development projects could result in strong support for the small farm sector, especially for those groups of small farmers with a sufficient resource endowment, particularly land, enabling them to respond to incentives to increase their market surplus. The non-interference of the project in the structure of land-distribution, has left a large segment of the landless rural population and some smallholder farmers without sufficient or secure land, since these groups were excluded from the project's agricultural components. For these peasants, the project led only to an increase in non-farm employment opportunities and access to collective goods provided to some villages. The State's physical presence in rural areas, however, has pluralized power at local level, breaking the former fusion of wealth and power of the local landed elite. Thus, patronage was "democratised" at local level as public goods were diverted to favour some rural poor.

However, we cannot say that the project brought long term improvement to the small sector. When the money finished, the benefits ended. Furthermore, through the conferring of divisible and private benefits, the project served mainly to reinforce individual interests and allowed peasants to seek public policies as a matter of personal self-interest. Therefore, a malfunctioning system of State control, based in distant authority which does not take into consideration local conditions, may be worse in terms of resource management and project sustainability than a strategy which aims to improve local system of rules and collective organisation.

In memory of

my Mother, Marina Ednéa Barreto Monteiro (d. 1989),

with all my love and devotion

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CHAPTER I - INTRODUCTION

1. The Issues Under Study

Despite conceptual and ideological controversies which surround the meanings of "development", the term "rural development" has emerged as "a distinct approach to interventions by the State in the economies of underdeveloped countries" (Harriss, 1982: 15; See also Lea and Chaudhri, 1986). It is defined by the World Bank as "a strategy designed to improve the economic and social life of a specific group of people - the rural poor". However, in a broad sense, it is clear that the World Bank and other international agencies are concerned "with the modernisation and monetisation of rural society, and with its transition from traditional isolation to integration with the national economy"; and that strategy to reduce rural poverty (avoiding the need for more fundamental restructuring of rural property relations) is "to increase production and raise productivity" (World Bank, 1975a:3).

The widespread efforts to "modernise" peasant agriculture - where the goals of production and income were considered to be synonymous - have been the subject of considerable debate. Some evaluations of "rural development" strategies have tended to emphasise the successes of modernisation efforts in terms of increased market production by peasant producers¹ (World Bank, 1975b) or the income gains that can be achieved from the modernisation of

¹ The term "peasant" has been used classically "to refer to the many groups of people who their own land and tools and use their own and family labour, and who are members of 'part societies' defined by their subordinate relations to external markets, the state and the dominant culture" (see Harriss, 1982:21). Although departing somewhat from classic definitions, here I am using a definition of peasant as posed by Ellis (1989:12), in which peasants are understood as "farm households, with access to their means of livelihood in land, utilising mainly family labour in farm production, always located in a larger economic system, but fundamentally characterised by partial engagement in markets which tend to function with a high degree of imperfection." According to this definition, peasants cease to be peasants and become instead family farm enterprises when they became wholly committed to production in fully formed markets. The empirical evidence shows that "small farmers" (up to 50 ha) in the region are essentially family farms, in the sense of the definition above. For this reason I use here peasant and this term interchangeable.

peasant production (Reinhardt, 1987). Others have emphasised the negative consequences of these efforts in terms of increasing rural inequalities, reaching the few and producing new forms of exploitation (Feder, 1976; Payer, 1980; Stryker, 1979; De Janvry, 1981: 234-246; Grindle, 1986: 160-174). In these analyses of the mixed results of rural development programmes and the critiques of those programmes along equity lines, however, limited attention has been paid to the political aspects of the articulation of the State with the peasantry. There has been too little study of the way the national and local political environment shapes the State's intervention and its role in agrarian development and to the political consequences of these actions².

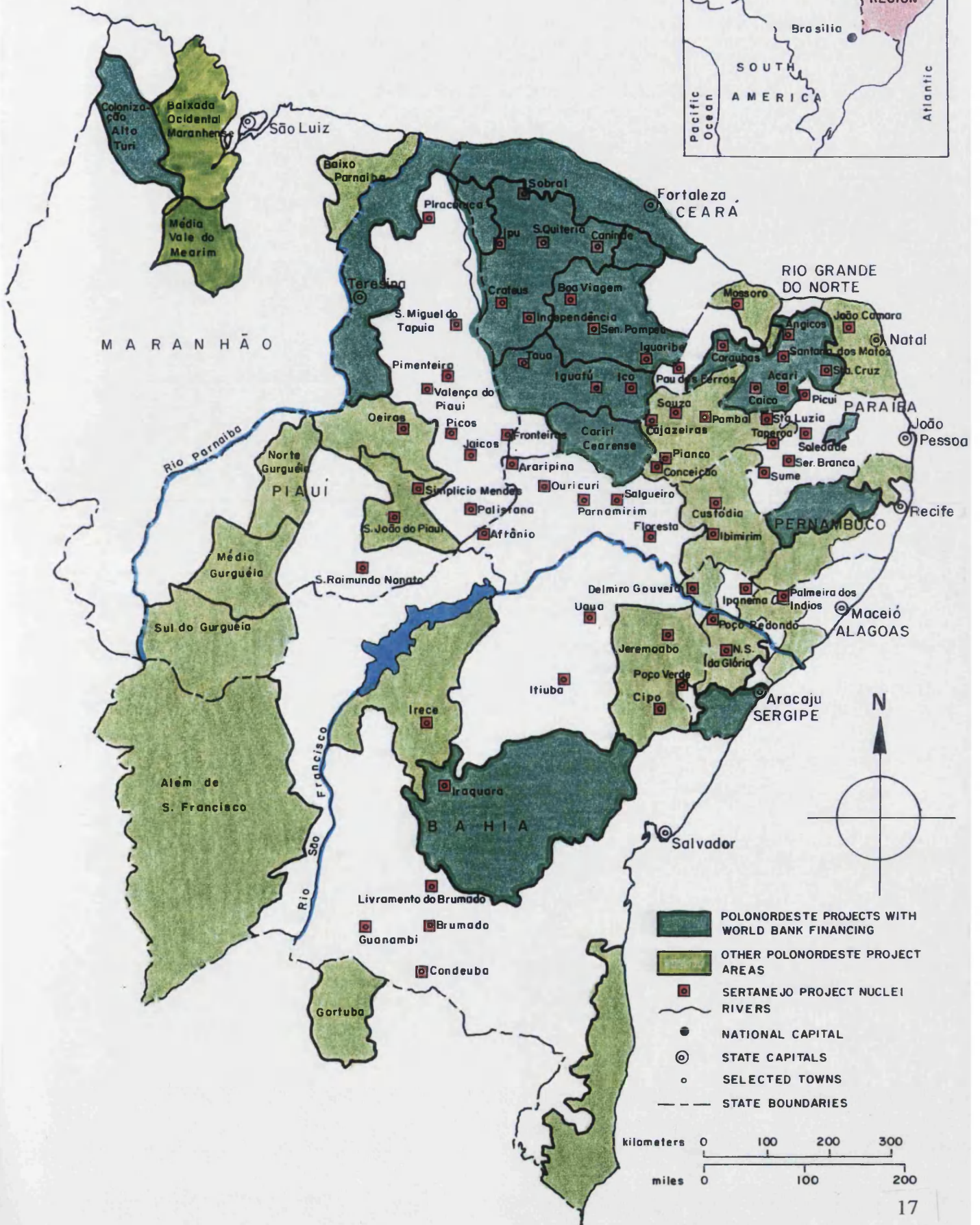
In considering state patronage as central to understanding agrarian processes, the research tries to identify the State's role and limits in the management of reforms and how its policies are likely to influence changes in rural societies in a concrete situation analysis at a micro-regional level. It does this through a case study of the implementation and outcomes of the Integrated Rural Development Project in the Northern Agreste of Pernambuco state (IDRP-AS-PE). This was one of a larger Northeast Programme of 43 area-based projects implemented by the Programme for the Development of the Integrated Areas of (Brazilian) North-East (POLONORDESTE). It was one of ten first generation World Bank funded rural development projects in eight states of the North-East.

The POLONORDESTE was the major programme designed specifically to raise productivity and rural incomes, particularly for small producers in this region. The area of the programme extended over 809 thousand squares Km, or the equivalent of 54 per cent of the Brazilian North-East (see map 1). Although POLONORDESTE is generally considered to have been more successful than previous efforts to help the small producer (World Bank, 1983; Ferreira, 1984; Tandler, 1988), precise quantitative information on POLONORDESTE's impact is not available due to the non-existence of a common evaluation system for the

² In relation to the last point, Grindle is an exception.

MAP 1

NORTHEAST REGION SPECIAL PROGRAMMES LOCATIONS OF PROJECT AREAS



programme. Moreover, its multi-component and multi-sectorial approach, associated with the particular economic and political structures at state and municipal levels, made it difficult to ensure uniformity in its implementation and results, and each project had intermediaries and specific points which can only be understood by means of a case study.

The period under consideration is 1979-1985; the period of the implementation of the IDRP-AS-PE, our case study. The two decades, between the years' 64-84, represent a period of rapid development of the productive forces and changing production relations in agriculture. According to Ferreira (1984), this process in the North-East region has brought with it the modernisation of a predominantly peasant economy and their effective incorporation into a market or capitalist economy. He suggests that the development of the family labour farms and their strength as an economic "middle class", which has been facilitated by their increasing integration in commodity production, has been found in the majority of the areas of the North-East where State intervention was taking place.

In the early 1970s, government planners in Brazil began to call for a new approach to the problem of rural areas, orienting separate policies toward what they had defined as the modern and traditional sectors. With the re-emergence of urban food supply problems, family-labour farms, traditionally a significant source of marketed food surpluses, has become a more explicit target of modernisation policy. As pointed out by Goodman and Redclift (1981:148),

"Although couched in redistributionist rhetoric, efficiency criteria, particularly short-term output expansion, takes precedence at the level of policy implementation. This output response is achieved by measures which intensify the commoditization of small-scale production. They included subsidised institutional credit programmes which capitalise the means of production and so enhance the necessity of marketed surpluses. Indirect measures comprise rural infrastructural investment, especially roads, to bring the "target groups" into closer contact with modern marketing and distribution systems and long-term credit programmes to attract processing firms to areas of small-scale agriculture."

This orientation, which has gained momentum since 1974, with special credit lines for small producers and, more ambitiously, "integrated rural development" programmes, is exemplified by the Programme for the Development of Integrated

Areas of Northeast (POLONORDESTE). This concentrates federal resources in areas of small-scale agriculture selected for their "economic potential".

In fact, the rationale for the creation of the POLONORDESTE comes from the experience of integrated rural development in other Third World countries, rather than the experience of regional planning in Brazil. By the mid 1970s, in several Latin American countries, further efforts to redistribute land had become unlikely given the greater capacity of the State to respond to rural conflict and the growth in the economic and political importance of capitalist sector that had taken place. At the same time, a new consensus emerged among State elites that agriculture had become an impediment to national economic development and rapid industrialisation. Increasing concern was voiced over the national and international ramifications of lagging domestic food output, high rates of unemployment and underemployment, massive rural-to-urban migration, and a constricted internal market for domestic manufactures. Increased production of food thus became a major development priority during the 1970s and, as a consequence, rural development figured prominently in national plans (See Grindle, 1986, especially Chapters 4 and 5).

With the World Bank in the lead, this perspective was strongly supported by international lending agencies³, especially after 1973, when Robert MacNamara, president of the World Bank, indicated the priority that would be assigned to rural development by the Bank. In fact, by 1980, rural development had become the largest loan category of the Bank. Much of this money was directed toward integrated rural development programs.

Within the sphere of development policy making, many critiques of the agricultural sector argued that increases in the production of domestic food stuffs would follow upon the infusion of credit, infrastructure, technology, health care, education, and

³ The donor community rather than developing country governments played a decisive role in promoting integrated rural development (IRD) as an approach to rural development. Lending agencies like USAID, ODA (England) and GTZ (Germany) became advocates of IRD and were soon followed by other agencies.

other amenities in poor rural areas. Poverty was blamed on subsistence peasants' lack of access to productive resources and on unemployment or low-productive employment. As in Schultz's (1976) traditional agriculture, poverty was understood as a separate phenomenon from the functioning of the economic system and the poor are those who lag behind, who were by-passed by progress, and who remained at the margin of society. As a consequence, policy recommendations regarding poverty were directed by idealistic and humanitarian concerns and the policy implication was that the productivity of the poor should be increased (De Janvry, 1983:150).

The integrated approach to rural development is characterised by extensive infusions of development aid in rural areas in order to raise productivity among peasant farmers to address some of the more visible aspects of poverty and underdevelopment. The programme's logic assumed that peasants would not be able to escape from centuries of poverty and exploitation unless they were supplied with access to credit, extension services, green revolution technology, water, roads, markets, health facilities, education for their children, and non-farm sources of rural employment.

Integrated rural development programmes were based on a dualistic perception of the agricultural economy, called by Grindle (1986:162) a "new dualism", which asserted that peasants and large farmers faced distinctive environments that presented them with distinctive incentives to produce particular kinds of crops and to adopt particular kinds of innovations. Accordingly, the rationale for productive activities differed between the two types of agriculture. Capitalist farmers produced for a market and were interested in maximising their long-range and absolute level of profits. Peasant producers sought to maximise short-range security needs and to provide for family subsistence. Both large-scale farmers and peasants were judged to act rationally, given the constraints they faced in achieving their basic priorities. The two sectors were seen as operating in relative isolation from each other, therefore distinct public policies had to be directed towards each sector of the agricultural economy. Thus, new programmes targeted at the rural poor had to be

added, while the State could continue to provide aid and subsidies to large-scale farmers.

This study, however, is not an attempt to evaluate the economic success or failure of "integrated rural development" strategies, nor their suitability or applicability for specific regions or other countries. Instead, our concern is to understand, through a case study of the policy process and outcomes of one of these projects for "rural development" and the "modernisation of small farms", how it was shaped by the pre-existing local and national political and institutional context and to examine some of its intended and unintended consequences. In explore these dimensions it is important to identify interfaces linking local-level institutional arrangements with the larger political-economic system. Thus, the analysis of the exercise of power at different levels of society emerged as a central element of our efforts to understand these connections and to account for the particular form of structural change which is taking place in the micro-region .

The Northern Agreste Integrated Rural Development Project (IRDP-AS-PE) included 36 *municípios*⁴ of two micro-regions of the "Agreste Pernambucano"⁵: 19 municipalities of the Agreste Setentrional and 17 municipalities of the Vale do Ipojuca (see map 2). This area can be taken as a representative zone of food-producing small-scale agriculturalists of the Agreste. It illustrates regional diversity within the enormous variety of agrarian transition in Brazil under the impact of the more centralised economic policies in the post-64 strategies of modernisation implemented by the State.

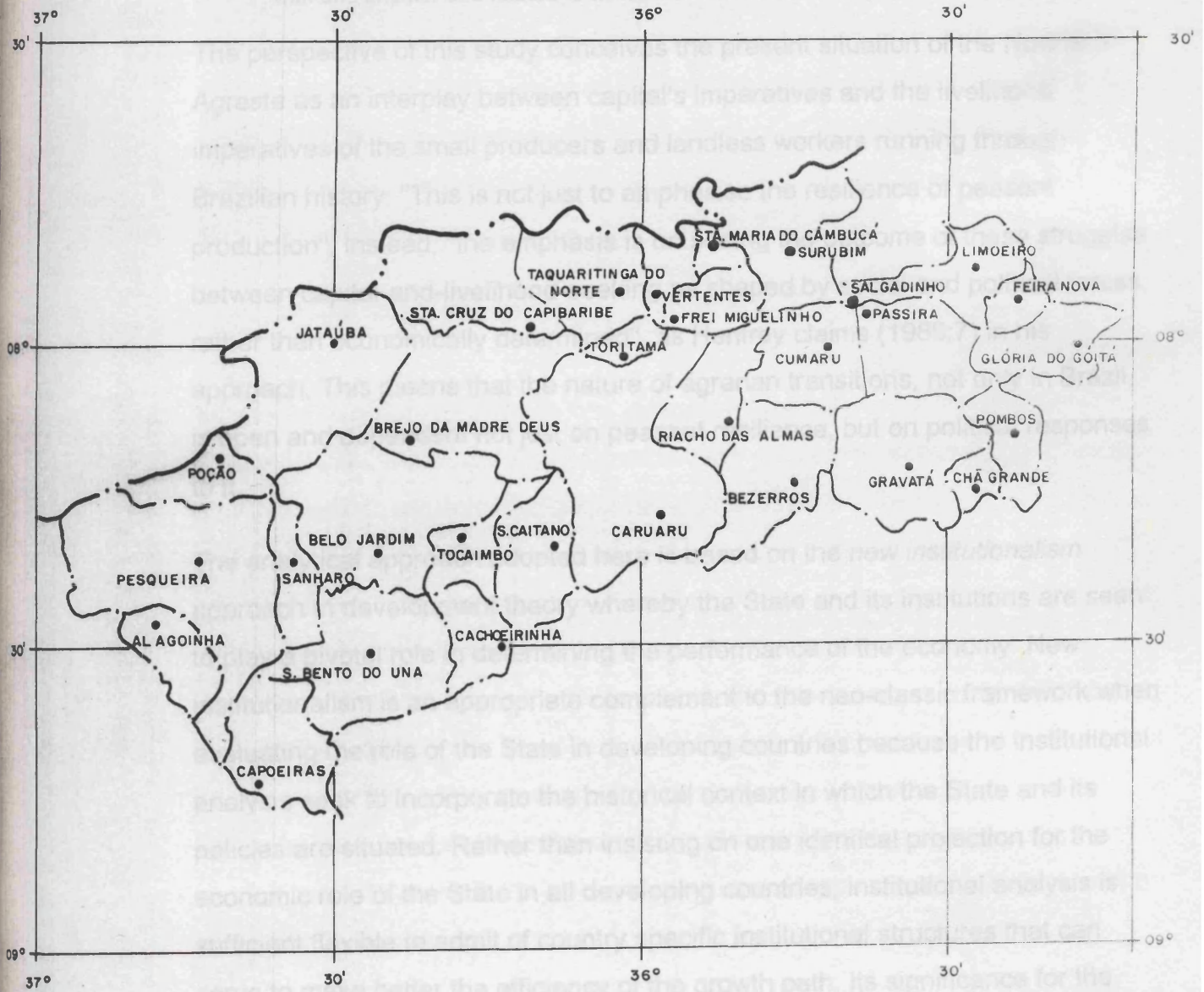
This research is, thus, a theoretical and methodological attempt at bringing the State into the analysis of agrarian processes by looking at rural differentiation

⁴ Municipalities are units of local government with specific power and form. They are composed by the municipal *sede* (referred as "cidades") and their *districts* (subunits of counties called "vilas"). Only Brazil's areas outside "cidades" and "vilas" are considered rural.

⁵ The Agreste is a transitional zone located between the Zona da Mata and the semi-arid Sertão and is characterised by diversity of landscape over short distances. It is almost the North-East in miniature, with very dry and very humid areas.

MAP 2

NORTHERN AGRESTE RURAL DEVELOPMENT PROJECT AREA - LOCATION



Des.: Cláudio Martins

within its specific historical context, and by highlighting "the profound political nature of the *agrarian question*" (White, 1989). Thus, in the sense in which it is understood here, bringing the State into the analysis of agrarian change is not considered to be simply a matter of how the State promotes efficiency or inefficiency in rural development. Rather, as Hart suggests (1989:48)

"it entails understanding how power struggles at different levels of society are connected with one another and related to access to and control over resources and people".

The perspective of this study conceives the present situation of the Northern Agreste as an interplay between capital's imperatives and the livelihood imperatives of the small producers and landless workers running through Brazilian history. "This is not just to emphasise the resilience of peasant production", instead, "the emphasis is on seeing the outcome of these struggles between capital-and-livelihood-seeking as shaped by social and political forces, rather than economically determined", as Henfrey claims (1989:7) in his approach. This means that the nature of agrarian transitions, not only in Brazil, is open and dependent not just on peasant resilience, but on political responses to it.

The analytical approach adopted here is based on the *new institutionalism* approach in development theory whereby the State and its institutions are seen to play a pivotal role in determining the performance of the economy. New institutionalism is an appropriate complement to the neo-classic framework when evaluating the role of the State in developing countries because the institutional analysis seek to incorporate the historical context in which the State and its policies are situated. Rather than insisting on one identical projection for the economic role of the State in all developing countries, institutional analysis is sufficient flexible to admit of country specific institutional structures that can serve to make better the efficiency of the growth path. Its significance for the study of development is related with the fact that it claims to offer a theory of development in terms of appropriate institutional change.

The new institutionalism is important in the context of economic policy in the 1990s because it challenged the dynamic role ascribed to the market by the economic orthodoxies of the last ten years or so, introducing new justification for interventionist beliefs⁶. The reintroduction of structures and institutions to the debate helps to explain why an automatic presumption in favour of free market solutions may not be warranted. Markets themselves are institutions. The State is the primary agent of institutional intervention and it has the capacity to stabilise or transform institutions including markets. The State is also the body responsible for the enforcement and protection of all formal property rights. By virtue of the State's role in specifying and enforcing formal rules, as North (1995) points out, "the nature of the State is bound to play a central role in determining the path of development".

2. Structure of Chapters

Chapter II (*The State and Rural Development: Explaining Public Policy Choices and Outcomes*) will consider a number of approaches to explain policy choices and outcomes on State intervention, giving special attention to theoretical interpretations to the nature of the State. The focus on the character of the State aims to highlight an issue often neglected in the analysis of results of rural development policy, that is the State as a social phenomenon, and its role and limits in the management of reforms. This chapter will provide a broad theoretical framework for the empirical analysis, formulating the conceptual approach for the consideration of the articulation of the State and rural society and the multiple ways in which State action and societal demands and resistance shape and reshape one another.

The purpose in Chapter III (*The National and Regional Context*) is to describe the political and institutional context, at national and regional level, in which the

⁶ See Harriss, Hunter and Lewis (1995).

POLONORDESTE and its integrated rural development projects took place. This chapter will present, firstly, a brief general account of economic and political changes in Brazil between 1964 and 1985; secondly, it introduces a brief historical analysis of State policies in the Brazilian North-East. The aim is to give an appreciation of the political and institutional constraints on political action and the importance of pre-existing institutional patterns in shaping the political behaviour of policy-makers and the policy process.

Chapter IV (*The Northern Agreste Project: The Politics of Policy Making and Implementation*) introduces a discussion on POLONORDESTE's conception, objectives, strategy, targets and achievements. It will also discuss the IRDP-AS-PE in the process of planning and implementation at state government and the political environment within which the local bureaucracy operates. The main focus here is: (i) to examine public policy-making - how decisions are made, the issues involved, and who influences them; (ii) to look at the policy-implementation process by examining the main instruments of implementation: the bureaucracy - its structure and performance; the allocation of resources; and what was in fact the policy implemented by the project.

Chapter V (*Outcomes: Project Impact at the Farm Level*) will introduce the area where the surveys were carried out and will investigate the nature and extent of short-term transformations taking place in the Northern Agreste farming activities under the impact of State policies. These changes will be examined mainly through information based on analysis of a "panel sample" of 340 household farms in the Northern Agreste of Pernambuco. It will try to outline systematically the principal trends observed in the different types of production organisation and household strata and to correlate the observed changes with the State action.

CHAPTER VI (*Public Policies and Private Choices: Political and Economic Interactions at Local Level*) will discuss, firstly, the extent to which the institutional framework provided by the State contributed for the relative

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performance among the categories of farms and in particular the improved situation of small farms. It discusses also the political consequences of the State action at local level. Secondly, through the analysis of household living strategies, it will explore how small farmers responded to the alternatives created by State intervention and sought to fulfil their desires for greater material well-being. Overall, there will be an attempt to identify the limits of the State in the implementation of reforms, and the capacity for autonomous choice on the part of local actors, both public and private. This study argues that to understand patterns of rural development, scholars should give greater weight to the importance of these choices in shaping the impact of State intervention upon the structure of local societies.

Chapter VII (*Conclusions: Lessons from the Northern Agreste Project*) will summarise findings and returns to the broader theoretical question raised here concerning the character of the State and its role and limits in the management of reforms. In this way, close attention must be given to how the pre-existing political and institutional environments shape the strategic political motivations of policy-makers and the policy process and to the importance of choices of local level actors in shaping rural development policy. I will discuss also the economic and political interactions in the main results of State interventions at local level and the long term limitations of the project approach for solving problems of peasant agriculture and rural poverty in the region. I will conclude this chapter by evaluating the relevance of the "new institutionalism" approach to studies of rural development and, finally, I draw out some of the policy implications of the perspective which I have employed.

Amongst the appendices there is an explanation of the methodological basis of this research. The appendix "*Methodology and Source of Data*" describes the methodological procedure followed in the collection of the field research data and the strategy used in the data analysis.

CHAPTER II - THE STATE AND RURAL DEVELOPMENT: EXPLAINING PUBLIC POLICY CHOICES AND OUTCOMES

1. Introduction

State policies are political projects; plans emerge from a highly complex bureaucratic and institutional context and their implementation is again a political process of some complexity. State policies aim to distribute the benefits in the form of resources, goods and services, or alternatively they selectively penalise, regulate, give permission or withdraw resources. Thus they have distributive or redistributive effects. But in order to understand this allocative process it is necessary to go beyond the interests of those involved in influencing and formulating policy. It is important to distinguish between the top political leadership (State elite) which takes general political decisions, and the hierarchy of agents, the bureaucracy which is supposed to implement those decisions.

The act of implementation itself frequently transforms policy. For that reason it seems important to focus upon intervention 'practices' as they involve and are shaped by the struggles between the various participants, rather than simply on intervention 'models', by which we mean the ideal-typical constructions that planners, implementors or clients may have about the process. Therefore one must look closely at how policy is implemented and at how the relevant actors (both implementors and target and non-target groups) react to it. This study argues that to understand outcomes of development policies scholars should pay more attention to the capacity for autonomous choice on the part of local actors, both public and private and give greater weight to the importance of these choices in shaping the impact of external agents upon the structure of local societies.

A critical issue underpinning the policy-making process is the conception of the State. Theories of the State are enormously varied. For some the State, as an executive apparatus for decision making and control, has identifiable and concrete concerns about the definition and pursuit of national development

(Grindle, 1986), and "relative autonomy" to pursue policies that could engender economic growth, social stability (Skocpol, 1979; Nordlinger, 1981). For others (which includes Marxists and some Neoclassical Economists), the State is largely controlled by ruling classes or passively responds to rent-seeking behaviour of various interests groups and lobbies. For them, the main function of the State "is to extract income from the rest of the constituents in the interests of that group or class." (North, 1981:22).

The issue of who controls¹ the State has therefore emerged as a significant focus of discussion among those who recognise that the State "has a particular importance in setting and policing the rules of the game", or "the institutional framework" in North's (1995, 1981) sense. According to North's (1981: 21) definition, "a State is an organisation with comparative advantage in violence". Since "the essence of property rights is the right to exclude", an organisation with this characteristic "is in the position to specify and enforce property rights". Given its role in specifying and enforcing formal rules and property rights, "the nature of the State is bound to play a central role in determining the path of development" (North, 1995)².

This chapter will furnish a critical assessment of contrasting analytical approaches to understanding policy choices and outcomes on State intervention, giving special attention to theoretical interpretations of the nature of the State. After we have looked at different approaches to the State we will be in a better position to assess which State theory offers the best explanation for elucidating certain key theoretical problems on the determinants of State policies and the role of intervening agents in shaping the outcomes of State intervention. This discussion will provide a broad theoretical framework for the empirical analysis, formulating a conceptual approach for the consideration of the role and limits of

¹ Our use of the concept of autonomy of the State relates to the degree to which the State is able to articulate policies that do not correspond to the interests of powerful economic and social groups in civil society.

² The importance of coercion for the State was stressed by Max Weber who defined the State as an enduring set of executive and administrative organisation whose role is to control a given territory and to make authoritative decisions for society. Although the State, in a Weberian

the State in the management of reforms and how its policies are likely influence changes in rural society.

2. Theories of the State

2.1. Pluralism

Pluralist (or liberal) political theory is, in some sense, "the official ideology of capitalist democracies" (Carnoy 1984:10). Implicit in the analysis of the State is the pluralist view that the government intends to serve mass interests even if, in practice, it does not always do so. Government is the servant of the people placed there by the people to perform that function. For pluralists, the State is neutral, an "empty slate", and still a servant of the citizenry - of the electorate - but the common good is defined as a set of empirical decisions that do not necessarily reflect the will of the majority.

Pluralism views the modern State and bureaucracy as disjointed in structure and blundering in performance. The older version of pluralism holds that after modernisation in the West, and particularly in the twentieth century, political power has come to be increasingly fragmented and diffused. Absolutism marked the growth of centralised State power; however, the subsequent advent of democracies marked the reversal of this process. Accordingly, the contemporary Western and notably the American political system³ is seen as an intricate balance of power amongst overlapping economic, professional, religious, ethnic and other groups or associations. Each group is held to exercise a certain influence on the policy-making process, but none of them is seen as possessing a monopoly or decisive share of power, since the different groups all check and counterbalance each other. Thus, no distinct power elite is discernible and the

definition, is the institution with monopoly of the legitimate use of physical force within a given territory (Weber, 1964: 156), this definition focuses on the means of the State, not its ends.

³ According to Dahl (1967, ch. 1), one of the most striking characteristics of the American political system is the extent to which authority is divided among a variety of independent actors. Many policy issues are placed in the hands of private or semi-public organisations.

government is increasingly subject to pressures from the various interests groups.

In the pluralist tradition, the fragmentation of society into competing groups is a political analogy to the competitive market-place in classical economics. Like the economic efficiency derived through an open and competitive market, the public interest is thought to be best served when policies emerge out of competition among large numbers of political interests (Dahl, 1967). Thus, the pressures of interest groups in the political process are evaluated positively: the political competition of interest groups served not only to protect, but actually to construct, the public interest.

The relative autonomy of the State is not an issue for pluralists. Not only is the initiative for policy linked to mobilisation of interests in society, but the source of policy change must be sought in changes of coalition of interests groups or in their relative power in bargaining, negotiating, marshalling votes, and otherwise influencing the policy makers. Many elements of pluralism have evidently been geared primarily to the analysis of the American political system, and if its analysis partially fits some Western European cases, this is more by chance than by design (See Etzioni-Halevy, 1985, ch. 9). This perspective may be particularly difficult to apply in the case of many peripheral countries, where votes and lobbying activities may not be useful for interpreting societal preferences, and interest groups may not be sufficiently well organised to put effective pressure on policy elites or may not have guaranteed access to them. This is especially the case of authoritarian States where the decision making process is not open to wide participation.

2.2. Corporatism

The development of corporatism in the twentieth century was related to its bifurcation into two types, according to the role and relative power of the State in relation to other organisations. According to Schmitter (1979) one type is that of State corporatism in which the State dominates the corporate groups by repressive imposition of authoritarian political forces (this exists mainly in fascist

or other non-democratic regimes). The other type is that of societal corporatism, in which the dominant relationship is reversed and the corporate groups dominate the State (this exists in Western, capitalist, democratic countries).

The corporatists have something in common with the pluralists in their emphasis on the crucial importance of interest groups, and in their recognition that the modern State has had to adjust to substantive power centres outside itself. But the pluralist approach implies that multiple, voluntary, competitive, and self-propelled groups have a major impact on State policy, while the corporatist approach posits that only a limited number of non-competitive, hierarchically ordered and State-licensed groups have such impact (Etzioni-Halevy, 1983:64).

The concept of corporatism has been applied to a variety of Latin American regimes. Malloy interprets "authoritarian corporatists regimes ... as a response to a general crisis of public authority brought about by the multiple effects of delayed dependent development" in Latin America (Malloy, 1977:5). The resurgence of military rule in South America (Argentina, Brazil, Chile and Uruguay) in the 1960s, occurred in the context of the erosion of earlier expectations of the first two decades of the post-World War era that greater economic and social equality and a more democratic form of politics would emerge in Latin America⁴. They were ruled by the military as an institution, rather than exclusively by individual military rulers, which appeared to adopt a technocratic, bureaucratic approach to policy-making (as opposed to a more "political" approach through which policies are shaped by economic and political demands from different sectors of society, expressed through such channels as elections, legislatures, political parties, and labour unions). In the course of this reassessment, a new term came into use. This approach to policy-making has led scholars to call these regimes "bureaucratic-authoritarian"⁵. As a first approximation, this may be thought as a type of authoritarianism characterised by a self-avowedly technocratic, bureaucratic, non-personalistic approach to

⁴ For an analysis of these expectations see Pakenham, 1973.

⁵ Examples of the initial use of this term are found in Stepan, 1973.

policy-making and problem solving. Beyond this there is some variation among scholars⁶.

There are, at least, two central issues in the analysis of authoritarian regimes: firstly, their ability to instigate and direct social and economic changes that tend toward "modernisation" or development; secondly, their power and autonomy vis-à-vis different sectors of society and their potential for stabilising, institutionalising, and legitimating control. Theories of the corporatist State and, especially, of the bureaucratic-authoritarian State have dealt with both of these issues primarily in terms of the political and social processes accompanying accelerated industrialisation. The evidence of distortions and failures in the execution of development programmes can substantiate the argument that various theories of the authoritarian State may exaggerate both its development potential and its degree of autonomy from the dominant civil sectors. Moreover, the realisation that the "bureaucratic-authoritarian" regimes of the 1960s and 1970s varied widely in their resorting to corporatist-type structures has led to some doubts about the usefulness of the concept in the contemporary context.

2.3. The Technocratic Approach

In the *technocratic* approach, decision makers are the focus of analysis for explaining policy outcomes. Executive and bureaucratic "players" compete over preferred solutions to particular policy problems and use the resources available to them through their positions (hierarchy, control over information, access to key decision makers, etc.) to achieve their goals. State policy is, thus, the result of competing activities among bureaucratic entities and actors constrained by their organisational roles and capacities. Their views on what policy should prevail are shaped by their position within government; that is, the issue position of each player is defined by the bureaucratic position he or she occupies, such that "where you stand depends on where you sit" (Allison, 1971⁷:176)). In this model, the autonomy of decision makers in shaping and pursuing policy is potentially

⁶ See for example O'Donnell, Ch. 1 and 7; Cardoso, Ch. 2; and Collier, Ch. 9, in Collier (1979).

very great. It is constrained only by the power and bargaining skills of other bureaucratic actors and by their own hierarchical position of power, their political skill, and the bureaucratic and personal resources available to them. From this perspective, policy clearly originates in the bureaucratic and policy-making apparatus, not in societal relationships of power and domination.

In this approach States are analytically separable from society and considered to have interests that they pursue⁸. At any particular moment, these State interests may or may not correspond to the interests of particular classes or groups in society. Although State action may lead to policies that favour particular societal groups, this does not necessarily imply that these groups imposed their preferences on the policy elites. Sometimes, in pursuit of its own interests, the State may adopt policies that may be detrimental to the interest of powerful societal groups. The capacity to do so successfully depends on the strength and autonomy of the State, factors that are recognised to vary across time and regimes (Migdal 1988, Skocpol 1985). The State is considered to be, thus, more than an arena for social conflict or an instrument of domination employed by the dominant class or class alliance. It is potentially a powerful actor in its own right. According to Skocpol (1979:27), the State is an institution with "a logic and interests of its own not necessarily equivalent to, or fused with the interests of the dominant class".

In some ways, this approach is akin to the elitist model⁹ which holds that societies are divided into the few who rule and the many who are ruled. The first groups (the elites) effectively monopolise power and are able to enjoy its

⁷ As quoted in Grindle and Thomas (1991:29).

⁸ Interests of the State include, for instance, the maintenance of social peace, the pursuit of national development as defined by policy elites representing particular regimes, and the achievement and maintenance of its own hegemony vis-à-vis societal actors (Grindle, 1986, Stepan, 1978, Skocpol 1985).

⁹ This model of society was originally developed by Wilfredo Pareto, Gaetano Mosca and Robert Michels. After the Second World War it was further elaborated by Wright Mills. Mills saw modern society dominated by power elites which manipulate the masses into accepting its rule. This elite consists of upper political, military and corporate economic personnel whose power is derived from their key position in their respective institutional structures (see Etzioni-Halevy, 1985 Ch. 4).

advantages while the second group (the mass) is invariably in a dependent position, and has no choice but to acquiesce in this arrangement. Most members of the elitist school are concerned with ruling elites or power elites in which bureaucratic-technocratic elites form only one of several powerful components. The technocratic view, however, is concerned specifically with the power of bureaucratic elites, and argues that they increasingly replace other elites in determining State policy.

When applied to the study of State intervention in rural development this approach seems to attribute considerable co-ordinating power to State bureaucracy. There is no appreciation of inter-agency conflict or of the struggles that take place between farmers', organisations and government or private institutions. A related problem is the failure to locate the discussion within an analysis of existing power structures at either regional or national level.

The State centred approach, which conceptualises the State as an autonomous agent of social transformation, may be seen as a mirror image of the pluralist and Marxists view because each emphasises the elements of bureaucracy neglected by the other. While the pluralist and Marxists view has emphasised the fragmentation, vulnerability and responsiveness of the State bureaucracy, the technocratic approach has emphasised its concerted power and distance from public demands. State centred theorists talk about State objectives without relating them to the interests of particular social groups. In their attempt to rid State theory from economic reductionism or interests groups, theorist have gone to the other extreme detaching the State from any form of social determination.

2.4. Class-Perspective Theories of the State

Theories of the State rooted in a Marxist, class-perspective analysis differ fundamentally from liberal theories in that they posit a State that is an expression, or condensation, of social-class relations, and these relations imply domination of one group by another. Therefore the State is both a product of relations of domination and their shaper.

Marxist theorists have long been divided between "instrumentalist" and "structuralist" interpretations of the State in capitalist society¹⁰. Instrumentalist theories tend to treat the State as an instrument of domination, either under the direct control of capitalist classes or subject to deliberate capitalist influences. On the other hand, structuralist perspectives maintain that the influences of dominant classes over the State are at the best indirect. Thus, the State functions independently of narrowly defined class interests in order to perpetuate the capitalist social order as whole. By so doing, the State may necessarily act against the interests of certain dominant classes or class factions.

An example of this view is the *logic of capital theory*, which argues that the contradictions of capitalist development, following universal historical tendencies (derived from Marx's "Capital"), shape the capitalist State and its contradictions. According to this theory the principal characteristic of capitalist development is the tendency for the rate of profit to fall. The class struggle is expressed through surplus extraction and is reflected in declining profits. The State emerges as a necessary response to this tendency and is historically shaped by it. As a class State, its principle role is to provide countertendencies to the falling rate of profit - to maintain and stimulate capital accumulation in the face of its "logical" and unavoidable tendency toward decline. The form of the capitalist State and its functions are derived totally from the general crisis of capitalism, and the general crisis is a function of the overproduction of capital.

One of the best known examples of this approach for understanding agricultural development and State policy is that by De Janvry (1981:1), "a case study of the uneven nature of capitalist development and of the role and limits of the State both in implementing a set of reforms directed at the contradictions of uneven development and in re-creating another set of contradiction in so doing". He argues that the problems of agricultural production and poverty cannot be explained in terms of the characteristics of the agrarian sector or by reference to

¹⁰ The instrumentalist-structuralist dichotomy is often considered the heart of the debate between Ralph Miliband (1969, 1970 and 1973) and Nicos Poulantzas (1968 and 1978) over the nature of the capitalist State.

farm behaviour or processes at the village or farm level. These issues, according to him (1981:8) must instead be related to (a) the nature of class structure of peripheral economies and (b) the process of capital accumulation which "guides the historical development of capitalism". From this perspective, agricultural policy has as its ultimate objective "fomenting the development of capitalism in agriculture". In so far as it has any political purpose it is to "stabilise the social relations of capitalism by changing the class structure in agriculture" (De Janvry, 1981:202-3) .

The major difficulty with De Janvry's formulation is that it interprets the pattern of agrarian development in Third World economies as resulting from the logic of capital accumulation and little attention is given to other factors such as styles of political intervention and ideologies of development represented by State programmes, or the influence of forms of peasant organisation or resistance. The image he gives is that of passive peasantry faced by overwhelming external forces. De Janvry's interpretation of 'reformist' policies demonstrates the similarities in their structural role, but he fails to elucidate the important differences in their means of implementation and context specific outcomes, with no concern to the differential local responses to development programmes.

2.5. The Rational Choice Paradigm

The rational choice paradigm, variously labelled "collective-choice" or "public choice", "the new political economy", "neo-classical political economy" and "the economics of politics", has expanded and altered the theoretical implications of pluralist approaches. As Moore (1990:225) argues ,

"...the analytical core of the rational choice paradigm ... is familiar and simple: the investigation of how far patterns of political action can be explained by making the working assumption that individual actors (persons, political parties, government agencies, governments, etc.) behave as rational choosers between the alternative courses of action open to them in the pursuit of the maximisation of their respective utilities. It is the paradigm of the 'economic man' applied to politics".

According to Moore (1990:226), what is called the rational choice paradigm has not only a range of general labels but a set of sub-fields which are imperfectly differentiated from one another both nominally and substantively, e.g. "the new

institutionalism" concerned with explaining the origin of economic and social institutions; "collective choice" bearing on the conditions under which aggregates of individual agents will undertake joint action to generate public goods and services; and "rent-seeking" analysis which deals specifically with the way in which people combine and compete to determine the way in which governments mobilise and redistribute material resources.

When applied to the study of economics, its parentage lies in micro-economics. However, according to Bates (1983:136) it is important to note the degree to which it represents a critique, both empirical and normative, of this tradition. With the conviction that the conventional paradigm is too narrow, the rational choice approach studies social choices more generally. It recognises that problems of choice and allocation occur in settings other than markets. Political society, like the marketplace, is composed of self-interested individuals who form coalitions and compete to acquire benefits from government. However, that which represents an equilibrium in a market cannot be expected to represent an equilibrium in a non-market setting. If, in the market, competition and self-interested behaviour generate efficiency in the allocation of resources, in the political arena, self-interested behaviour generates negative outcomes for society - a State that is captured by narrow interests, policies that are distorted in economically irrational ways by self-seeking groups, and public officials whose actions are always suspect (Bates, 1981). The approach thus makes it possible to respond to questions such as that posed by Robert Bates (1981:3; 1983:2): Why should reasonable men adopt public policies that have harmful consequences for the society they govern? What influences the selection of these policies?

In this view the State is controlled by ruling groups and its main function is to extract income from the rest of the constituents in the interests of that group. Like the pluralist perspective, the rational choice paradigm assumes that political society is composed of self-interested individuals who coalesce into organised interests. Interest groups, which tend to form around relatively narrow issues of special importance to their members, are created by individuals seeking specific

self-interested goals (see Olson, 1982). Complementing the interests of groups in capturing favoured status in the distribution of resources in society are elected public officials who follow a "strategic calculus" as they seek to use public resources to stay in power, the resources of the State become a "weapon for survival" (Ames, 1987). Politics, then, is the sum total of individuals seeking special advantage through public policy and officials seeking to benefit from public office through reelection and rents.

In this approach, the politically rational goals of private interests and public officials generally lead to ends that are economically irrational. Thus, its assessment of politics stands in considerable opposition to the pluralist assumption that wise policy results from fragmented interest articulation in the political arena. According to Bates (1988: 352), "a major reason is that public officials are frequently less concerned with using public resources in a way that is economically efficient than they are with using them in a way that is politically expedient".

According to Moore (1990:234), "rent-seeking" analysis (a sub-field of the rational-choice paradigm) illuminates the way in which, within Third World States, public resources devoted to agricultural development are allocated among different farm services. As Moore argues (1990:241), the explanatory power of the rational choice paradigm appears to derive from the fact that it very positively draws attention to the variation in the political effectiveness of political actors which derives not simply from their socio-economic status but also from their capacity to organise politically and from the amount of reward they might expect to gather. As Moore points out (1990:226),

"The core imagery here is of people using politics to obtain from the State - via licences, quotas, permissions, and other interventions - the material rewards which they cannot obtain through their own 'legitimate' efforts in economic enterprise. The meta-hypothesis is that the rationale behind State intervention in the economy is the exploitation by public servants, and private beneficiaries of opportunities to make 'illegitimate' profits (rents)."

The class logic version of the Marxian political economy of development is morphologically almost identical with the version of rational choice theory which concentrates on the problematic role of interest groups. Both have political

processes which guarantee economically irrational outcomes. The only important difference is that the former attributes the pressures for economic irrationality to an exploitative class, while the latter attributes it to the activities of self-interested groups. The introduction of rational self-interest as the sole motive of politicians and bureaucrats did not change the neo-Marxist view of the State as an entity merely pretending a real concern for the public interest and national welfare. As Bates (1983: 146-7) points out:

"...politicians select economic policies not out of a regard for their economic merits but out of a regard for their political utility; economic inefficiency can be politically useful. [...] States have their own objectives. They want taxes and revenues and intervene actively in their economic environments to secure them. Politicians want power. And they use the instruments of the state to secure and retain it by manipulating the economy to political advantage. [...] The African case thus compels recognition of the possibility that political forces may be fully autonomous and, as in consequence, may act at the cost of economic rationality and solely in service of themselves."

Rational choice theory offers explanatory insights into the functioning of the predatory State¹¹, which features predominantly in the literature on development countries. In his model of the State North (1981, chap. 3) stresses the widespread tendency of the State to produce inefficient property rights and hence fail to achieve sustained growth. These are produced by two constraints on the ruler. Under the competitive constraint, the ruler will avoid offending powerful constituents. If the wealth or income of groups with close access to alternatives rulers is adversely affected by property rights, the ruler will be threatened. Accordingly, he will agree to a property rights structure favourable to those groups, regardless of its effects upon efficiency.

According to North (1981: 28), efficient property rights may lead to higher income in the State, but lower tax revenues for the ruler because of transaction costs (monitoring, metering, and collecting such tax) as compared to those of

¹¹ The predatory or exploitation theory of the State is held by remarkably varied collection of social scientists, including Marxists analysts of the capitalist State and some neoclassical economists. These views the State as controlled by ruling groups or classes. The main function of the predatory State is to extract income from the rest of the constituents in the interests of that group or class. The predatory State would specify a set of property rights that maximised the revenue of the group in power, regardless of its impact on the wealth of the society as a whole. Such theories have been propounded by those seeking to explain the failure of particular countries to achieve self-sustaining economic growth.

more inefficient set of property rights. A ruler therefore frequently found it in his interests to grant a monopoly rather than property rights which would lead to more competitive conditions. Thus, the property rights structure that will maximise rents to the ruler (or ruling class) is in conflict with that that would produce economic growth. Given the structures of this model, it is clear that only under unusual circumstance does it happen that the ownership structure specified by the ruler is consistent with the kind of efficiency standards implied by the neo-classical model. North refers to the frequent fact that the State, for reasons of maintaining its support structures, may prolong socially inefficient property rights. He shares with other liberal economists a basic distrust of the State, whose unrestrained power and rapacity result in institutional atrophy and economic stagnation.

Under this approach the State is also analysed as an arena in which outcomes result from the pursuit of rational interest by individual politicians, bureaucrats and others actors. Where the interests of rulers and ruled conflict, personally self interested politicians will not make arrangements which secure the legitimate interests of citizens. In the absence of a natural harmony of interest, rulers serve themselves better by using their power to exploit others, and political arrangements which limit rulers' pursuit of self interest are the only constraint on this exploitation. If such arrangements do not exist or have been subverted (which is the scenario in Third World countries), then the adoption of 'good' policies is impossible to achieve.

This cynical view of the State leads to a bleak and deeply contradictory pessimism about the possibilities of progress. In fact, the success of neo-Marxism in discrediting the assumption of the benevolent State paved the way down which the New (neo-classical) Political Economy moved triumphantly in the 1980s¹².

¹² Among academics some have simply abandoned the conceptual vocabulary of neo-Marxism in favour of that rational choice theory, which is considered to furnish a more consistent and powerful explanation about the political economy. Others have tried to combined neo-Marxism with rational choice theory. See Przeworski (1985) and Roemer (1986), as an example of what is called of a school of "rational choice Marxism".

3. New Institutionalism: An Alternative Approach to the State and Third World Development

Observers of the Third World have long been concerned with its typical pattern of government economic regulation, which has appeared inefficient and often corrupt. Scarce economic resources often seem to have been diverted away from the poor, and grand-sounding economic strategies have sometimes appeared as little more than screens for measures which have enriched well-organised groups in both public and private sectors. Although attempts to apply the rational choice paradigm to the Third World have been rare and recent, these sound like the conditions in which this approach, which is essentially a formalised critique of government inefficiency and corruption, might be expected to thrive¹³.

This approach to Development is an economic theory of politics, and uses the assumptions of neo-classical micro-economics – methodological individualism, rational utility maximisation, and the comparative static method of equilibrium analysis – to explain the failure of the State in developing countries to adopt neo-liberal economic policies for growth and development. Consequently, according to Toye (1993: 321), neo-liberalism presents not merely “a body of settled conclusions immediately applicable to policy, but also “an account of *why* its prescriptions over forty years of practice of development have until recently found so little political favour”.

However, we can say that nothing in those assumptions determines the features of the State that have been identified above. Bates (1983:134-5) emphasised three fundamental characteristics of this approach which require clarification: the premise of rational choice; the method of equilibrium analysis; and the role of institutions.

¹³ One can reject the deep ideological bias out of which rational choice paradigm was born. However, as Moore points out (1990:230-231), this does not invalidate the core ideas behind it: the suspicion that the pattern of State involvement in economic affairs is the product of political pressures from organised groups pursuing their material interests. Its emergence was partly an attempt to find a new line of formal, theoretical defence for a simplistic pro-market, anti-state doctrine when a set of research findings suggested that the welfare losses associated with

Accordingly, the assumption of rationally maximising individual agents represents one cornerstone of this approach. Rationality demands that individual decision makers choose their most preferred alternatives, which will be ranked in terms of their value in enabling the individual to secure his or her preferences. Note that rationality says nothing about the content of preference. Nor does rationality require perfect information. It requires only that choice makers order alternative courses of action in terms of their estimates of the consequences for the values they seek to attain and they choose the alternative which they expect to yield the most favourable outcome¹⁴.

Rational choice is characterised by its commitment to the individual as a unit of analysis and the assumption of rational behaviour, but this rationality merely demands that individual decision makers choose their "top" or most preferred alternatives, which will be ranked in terms of their value in enabling the individual choose his or her preferences without imposing conditions on the "content" of preferences. According to Heath (1976:76), "the rational choice theories are about the way in which people choose *given their beliefs* and they do not themselves venture to say anything about the nature of those beliefs". If, as is required by the theory, the individual knows (or believes that) what the outcomes of every course of action will be, all he has to do is rank the outcomes and select the best. Thus, it is a fallacy to say that "it is rational only to pursue one's own self-interest" and the many people who act out of a "sense of duty or friendship cannot be accounted as rational and cannot be brought within the scope of rational choice theory", and that the theory can apply only to the selfish and egotistical.

government regulation of the economy were far lower than many economic liberals had asserted.

¹⁴ Broadly speaking, the rational choice approach as used in exchange theory, game theory and in economics begins with the assumption that people have given wants, goals, values or "utility functions". It then assumes that these goals cannot be equally realised. Men live in a world of scarcity and therefore must select between alternative courses of action. They will, it is assumed, do this rationally, selecting the course of action which is the most effective means to their goal or selecting the course which leads to their most preferred goal (Heath, 1976:3).

As pointed out by Heath (1976:79), "rationality has nothing to do with the *goals* which men pursue but only with the *means* they use to achieve them". When we ask whether someone is "behaving rationally" we are asking, for example, whether he is "choosing the most efficient means to his goal". We are not asking whether he is choosing the "right" goal. Thus, I would argue against the assumption that individualistic and rational behaviour is "an assumption that leads to pessimistic conclusions about the potential for change and the ability of policy elites and citizens to conceptualise and act upon some broader vision of the public interest", as Grindle and Thomas (1991:4-5) pointed out.

The method of equilibrium analysis provides another cornerstone. It is through equilibrium analysis that insight is achieved as to how the choices of individuals result in social outcomes. However, the use of equilibrium analysis does not imply a conviction that the world is "determinate". Nor does the use of equilibrium analysis assume that the world is orderly. By an equilibrium is simply meant a situation in which no party has an incentive unilaterally to alter its behaviour. In situations of chaos, or in the making of revolutions, there may be strong incentives to behave violently, which can represent an equilibrium strategy¹⁵. To apply equilibrium analysis is thus not to imply that there is social order, much less lack of change. However, to move from individual maximising agents to the analysis of social equilibrium requires assumptions about the social and political context of choice making.

The institutional environment provides a third basic element of the theoretical apparatus of the rational choice approach. For, without knowledge of their social and political context, one simply cannot infer social outcomes from a knowledge of preferences and the use of equilibrium analysis. Clearly, institutions help to determine the nature of social outcomes. In moving away from an exclusive preoccupation with markets, the rational choice approach recognises the

¹⁵ Tong (1988) constructed and tested a rational choice model of collective violence, using rebellions and banditry in the Ming Dynasty of Chin (1368-1644) as the empirical reference. This model views rebellions and banditry as a rational response in a subsistence crisis, in the same family of other survival strategies.

importance of a far broader range of human motivations. As Bates (1983:140) states:

"... because it grappled with the complexity of analysing institutions other than markets, the collective-choice approach has learned that the precise specifics of institutional environments count, in the sense that they play a key role in determining the way in which individuals preferences aggregate into social outcomes. Institutional environments offer choosers values in addition to economic values: membership, office, prestige, etc. They provide access to resources other than income or productive technologies: To power, networks, or systems of rights and obligations, And they provide frameworks within which bargaining takes place and strategies are developed. They define, in short, 'the rules of the game' which determine the values of outcomes which can be sought by alternatives courses of action."

Thus, from inside the methodological individualism tradition, Bates emphasises the importance of institutions. His argument is that while rational individuals should constitute the unit of analysis, "they compete within a set of political institutions; and the structure of these institutions shapes their interactions so as to determine the outcome that will hold in equilibrium" (Bates, 1989:10-13).¹⁶ Because this approach is sensitive to the determining power of cultural and institutional settings, it is highly resistant to any effort artificially to 'homogenise' human behaviour and requires the use of a precise and detailed knowledge of cultures, structures and institutional environments.

With a renewed emphasis on social structure by the new institutionalism, the institutions of political life take on an expanded significance. They are no longer seen merely as a set of constraints (unchanging and unexplained) within which individual politicians and bureaucrats rationally maximise their utility. Their role in conferring legitimacy, authority, and power on those who participate in them can be understood, as can the associated concept of institution-building and institutional decay. If the problem is that self-interested behaviour by rulers of developing countries has increased, one must enquire how structures have changed to weaken the institutional constraints on opportunistic self-aggrandisement in the realm of politics.

¹⁶ Cited by Toye (1993: 337).

The new institutionalism is important in the context of economic policy in the 1990s because it challenged the dynamic role ascribed to the market by the orthodoxies of the last ten years or so, introducing new justification for interventionist beliefs¹⁷. The reintroduction of structures and institutions to the debate helps to explain why an automatic presumption in favour of free market solutions may not be warranted. Markets themselves are institutions. Thus, the new institutionalism reintroduces the State and it shows that "neither State nor market is the best way in which to organise the provision of goods and services" (Toye, 1995). Its significance for the study of development is related with the fact that it claims to offer a theory of development in terms of appropriate institutional change.

The new institutionalism rejects a certain very restrictive conception of the market "as an abstract realm of impersonal economic exchange of homogeneous goods by means of voluntary transactions on an equal basis between large numbers of autonomous fully-informed entities with profit-maximising behavioural motivation and able to enter and leave freely" (Harriss-White, 1995), which is central to neo-classical economics. The new institutionalism starts from the reality that information is rarely complete, and that individuals have different ideas (or mental models¹⁸) of the way in which the world about them works.

The recognition that the economies of the developing world are characterised by pervasive market failure enables those armed with the insights of the new institutionalism to attempt to account for a wide variety of social forms that might otherwise appear mysterious and to appreciate the economic significance of apparently non-economic institutions. Focusing on the law, property rights, bureaucracies, and other non-market structures, the new institutionalism seeks to demonstrate how rational individuals might employ non-market institutions to secure (in equilibrium) collective levels of welfare that they otherwise might not be able to attain, given their responses to market incentives" (Bates, 1995: 27).

¹⁷ See Harriss, Hunter and Lewis (1995).

¹⁸ North (1990:37) argues that individuals makes choices on the basis of their mental models, which are in part culturally derived, differ widely, are not easily changed and give rise not to the one determinate position of general equilibria theory but potentially to multiply equilibria.

Thus, it offers ways of understanding the economic significance of features of Third World societies and cultures that market-based reasoning might misunderstand or ignore.

According to Popkin (1988: 246), market economics gave economists a set of tools with which to discuss economic policy, but economists had no corresponding awareness of the economic role of nonmarket institutions. Although some field workers wrote on one or another “traditional institution” and its role in the rural economy, economists were resistant to being interested in rural institutions other than markets. Schultz’s *Transforming Traditional Agriculture* is an example of the assumptions and focus that free-market economists used in examining peasant agriculture. In his discussion of the evidence for economic response to new opportunities and their allocation of resources at the farm level, Schultz emphasised the responsiveness of peasants to market forces. In the worlds of Theodore Schultz, given the right incentives, farmers in the developing world would “turn sand into gold”. “Distortions” introduced into the agricultural markets by governments, he contends, furnish the most important reasons for their failure to do so (Schultz, 1978). However, Schultz’s work is severely limited because of its focus on market forces and a fixed institutional framework. By ignoring the interplay between market forces and national and local institutions, he makes prescriptions that are far too narrow and predictions that are far too optimistic about the beneficial aspects of increased market activity¹⁹.

As Lipton has shown (1968), the conclusion that peasants are production-maximising does not pay sufficient attention to problems of risk and uncertainty

¹⁹ Stiglitz (1993:27) argues that models focusing on fully informed rational peasants working within ‘rational’ and efficient institutions are likely to be not only inadequate, but seriously misleading, just as models that simply hypothesise that peasants are rule (tradition)-bound, irrational, and non-economic are almost misleading. Peasants are rational, but they are not fully informed. And imperfect information (as well as a variety of other transaction costs), besides limiting the effective degree of competition, creates institutional rigidities, allowing the persistence of seemingly inefficient institutions. It may not be possible to affect change in a decentralised manner – central co-ordination, that is government intervention, may be required. Market forces by themselves may not be enough to ensure the success of the development process.

facing the household. The jump from peasant efficiency to village efficiency (or production maximisation for a given level of technology), moreover, assumes perfect markets in land, labour and capital. It fails to take sufficiently into account the problem of nonmarket goods and insurance. Peasants' worries about risk and insurance and the economic benefits of institutional remedies to these problems were ignored by most economists, not just by Schultz.

There are potential contributions of new institutionalis to the analysis of nonmarket supralocal organisations for insuring peasants against risk and uncertainty. One example is provided by institutions that offer "generalised reciprocity"²⁰: institutions in which people invest resources, not in expectation of specific recompense, but rather in an effort to create a general fund of goodwill that can subsequently be tapped should a specific need arise. Families constitute the most striking example of such institutions. In the absence of secure property rights, they mobilise family ties, religious groups or ethnic associations in support of commerce and trade; the richness of information in such environments facilitates calculations of the appropriate level of trust and the density of social ties increases the costs of the loss of reputation, rendering probity of greater value than opportunism in economic transactions. In the absence of effective States, capable of providing public goods, people are likely to join religious associations, fundamentalist groups or revolutionary parties in an effort to secure them²¹.

What makes the new institutionalism approach especially relevant for students of long-run Third World Development it is the focus upon the interaction between

²⁰ " See Bates (1995: 36).

²¹ Popkin's (1979) classic study of Vietnam provided an example, as he examines the role of churches and the Communist Party in providing property rights, public works and changes in political institutions. Through study of four pre-revolutionary and revolutionary Vietnamese organisations, Popkin shows how these organisations were able to gain control of large sections of the country and to channel significant peasant resources into creating new rural societies. By undermining the power of village notables, the organisations provided peasants with mutually profitable sources of insurance and welfare, and helped them to overcome the institutional manipulations of market and bureaucratic connections to give the peasants access to the institutions that had previously kept them at a disadvantage. By doing so, they helped the peasant to tame markets and enter them on their own. But, more importantly, the changes in authority relations engendered new conceptions of identity and self-worth among the peasantry.

institutions and organisations²². Khan (1995) shows how distinct institutional arrangements can shape organisational behaviour and how alternative sets of organisational responses may impact on institutions. Consequently, while it may be argued that to a large extent growth is institutionally path-determined, agents being conditioned by prevailing cultural norms²³ and possibly deflected from behaviour that is optimal or maximising, this does not preclude individual organisations acting as agents for institutional change. Similarly, novel productivity-enhancing institutions, can emerge almost spontaneously, triggered by minimal individual initiatives, and are not invariably rooted in collective behavioural change. This implies a greater recognition of cultural-institutional-diversity and the prospect of positive institutional change resulting from a range of individual actions, presuming that action to be largely driven by optimising rationality.

Both formal and informal institutions and voluntary organisations affect economic outcomes because they condition the opportunities and incentives of agents. State regulation in general creates or attenuates property rights and is therefore part of the formal institutional structure. The State is also the body responsible for the enforcement and protection of all formal property rights. The State is closely associated with the protection and maintenance of formal institutions and the processes through which they are changed. However, as Khan (1995: 72) stresses, "It does not necessarily imply that the State decides which institutions to protect and how. The State or parts of it can under some circumstances act

²² According to North (1995:23) "institutions are the rules of the game of a society, or more formally, are the humanly devised constraints that structure human interaction". They are composed of formal rules (statute law, common law, regulations), informal constraints (conventions, norms of behaviours and self-imposed codes of conduct) and the enforcement characteristics of both. "Organisations are the players: groups of individuals bound by a common purpose to achieve objectives". They include political bodies (firms, trade unions, family farms, co-operatives); social bodies (churches, clubs, athletic associations); and educational bodies (schools, vocational training centres.)

²³ According to Brett (1995: 205), "Culture is not simply a given derived from individual chosen preferences, but an outcome of the interaction between values and institutional and organisational rules and structures. ... For as long as oppressive conditions prevail, individual behaviour will be dominated by opportunism".

autonomously, in others it simply responds to pressures from competing classes and groups”.

Bates (1995) points out that the theory does not discriminate among an infinite number of possible outcomes and shows that the same economic institution can have different consequences in distinct contexts. Thus, what the State can do to promote rural markets, to help small-scale industry, to respond to the pressures of labour unions and women’s organisations, and to address a great number of other tasks depends upon how well the government’s own institutions are working. The reasons for the different outcomes have to do with the political context, or what Khan (1995) refers to as "the political settlement", meaning the balance of power between the classes and groups affected by an institution. This balance crucially influences the net effects of an institution. The new institutionalism emphasises choices, whereas the reality is often that outcomes are determined by constraints which have to do with the political settlement.

The theoretical significance of Bates’s (1980) analysis of the divergent agricultural conditions in Ghana and Kenya is its political interpretation. What he seeks to make known is an appreciation of the fundamental importance of politics to the process of agrarian development. Whether an agricultural economy flourishes or stagnates is seen as being primarily derivative of the operation of political forces or of the political attributes and conduct of the rural population. The interplay of organised interest is thus central to the study of rural development. Therefore development specialists find in the new institutionalism a justification for basing development efforts on community action and civil engagement.

3.1. New Institutionalism and the Rational Peasant: The State as the Object of Peasant Politics

The phenomenon of unequal political mobilisation and the problem of collective action have emerged as a major concern of the literature on institutional analysis. Almost all debates on rural politics take as axiomatic the great difficulties faced by poor, physically dispersed farmers in effectively engaging in

supra-local political activity of any kind. With a few exceptions, peasants seem to attract attention only when engaged in national or social revolution. In fact, this focus on revolution is not only the legacy of myths propagated, social scientists have been amazed by very real, and quite dramatic, twentieth-century social revolutions in which peasants have played an important role. Out of this has emerged an image of the peasant in which they are seen as passive or at most simmering with discontent until they join together or are organised by revolutionary party and overturn the existing social order²⁴. Current research on peasant politics have shown that these images of the peasant obscure much of the political activity occurring in the countryside, and has concentrated in less dramatic but ongoing struggle within peasant societies and in studying every forms of peasant resistance.

Our interest is not in the politics of revolutions but in the political participation of peasants. In this case, it would be possible to employ a restrictive view of political activity, defined as "activity by private citizens designed to influence *governmental* decision making" (Huntington and Nelson, 1976²⁵), because it has contemporary relevance for the study of rural development. Nevertheless, it seems wiser to adopt a broad definition of political activities²⁶, because, especially in the countryside, political and economic power are generally intertwined.

²⁴ Despite the fact that peasants have always had difficulty making their voices heard, there has been no shortage of people inclined to speak for them. According to Brown (1990:1-2), such volunteers have created two myths about the peasant: The first evokes a peasantry that is "repository of authenticity and national virtues, quick to defend their own rights and the rights of their people". The second myth is that of a peasant imbued not with revolutionary vigilance but with "submissiveness and political stupor", a peasant characterised by "backwardness, ignorance, and passivity".

²⁵ As cited in Brown (1990:4).

²⁶ Brown (1990:6-7), identifies four basic forms of political activity: (i) *Atomistic action* - which comprises the political activity of individuals and small groups. Specifically, this form of activity may include banditry, uprooting of crops, arson, cattle poisoning, and attacks by individuals or small groups on officials and landlords or their agents - all of which are considered to be political crimes; (ii) *Communal action* - Also a form of direct action, in which peasants, acting in large groups or communities, take matters into their own hands to enforce their will. Examples of this are land invasion, strikes, and attacks by large groups on landlords and officials; (iii) *Legal and institutional action* - which comprises actions viewed as legitimate by central authority and institution - that is demands articulated through regular channels, such as voting or jointing

Previous studies, although often focused on revolution, provide some answers to the question of *what* makes peasants act politically. A large body of literature on structures that inhibit or facilitate peasant action presupposes that peasants require more than a common viewpoint to resist, especially when co-operation and co-ordination are required. For some, the system of agricultural production affects peasant politics in two ways: it determines the material conditions of the peasantry and affects whether peasants face problems in groups or as individuals²⁷. For others the crucial factor for political activity is the open ("outward oriented") or closed ("inward oriented") nature of the village²⁸. The State also appears as a sort of social structure which affects not only rebelliousness but also tendencies towards other forms of political activity. Here we will review previous interpretations of the effects on peasant society of the growth of central States.

The structuralist approach emphasised the repressive and inhibiting character of the State. In this view (see for instance Paige, 1975), the State often stands as little more than the accomplice of those elites who derive their livelihood from the control of land. Yet others attribute such importance to the State that the State, not the peasantry, becomes the determining factor in rebellion. For Skocpol (1979, 1982), peasants rebel only when allowed to do so by a State already weakened by internal divisions or foreign wars. In this State-centred approach, the question should not be when peasants decide to rebel but when the State allows them to. In normal times States are strong enough to prevent rebellions and to prevent open forms of political activity which they consider illegitimate. A

political parties; (iv) *Revolt and revolution* are the final form.

²⁷ The impact of agricultural production on peasant social organisation is not a recent recognition. It forms the basis for Marx's analysis of the French peasantry. Yet the effort to describe the relation between production system and political activity remains controversial. Wolf (1969) and Scott (1979) argue that the peasants most prone to revolution are village-dwellers who possess landed property. In contrast, Paige (1975) argues that smallholding peasants are normally conservative and quiescent, whereas propertyless labourers - cultivates who earn income from wages not land - are more likely to become revolutionary.

²⁸ Migdal's (1974:87) basic argument is that peasants in the Twentieth-century Third World have been undergoing a disruptive economic transition from predominant "inward orientation" - marked by subsistence and agriculture and strong communal and patronage controls - to greatly increased "outward orientation" - marked by substantial involvement of individual peasants and households with extra-local "multiplier mechanisms: markets, cash, and wage labour".

strong State, thus, should be a politically atomising force, because it arrests and punishes those who organise or actively protest against its purposes. Only in favourable political circumstances is the insurrectionary potential of peasants - whether traditionalist or commercialising, landed or landless - able to propel revolutionary transformation, and presumably to take political action.

As an answer to the question of *what* makes peasants act politically, a large and consensual body of literature has also emerged focusing on the political outlook of peasants. The "moral economy perspective"²⁹, articulated by James Scott (1977, 1979), has a structural and microeconomic dimensions as well as a cultural or moral one. The microeconomic dimension is based on Scott's view of the centrality of the existential struggle for subsistence to the peasant's life and behaviour. Continually battling just to maintain themselves, peasants are forced to work to meet their minimal needs before attending to other concerns. This is the "safety first" principle - peasants will avoid risks that could threaten their subsistence, however great the potential payoff. In microeconomic terms they are risk-averse. This engenders what Scott calls the "subsistence ethic", according to which peasants judge claims on their crops not by how much is appropriated but by what remains for them to eat (Scott, 1979:5, ch. 1 and 2). Claims on the peasantry that endanger its subsistence are viewed as more than economic threats, they are moral violations of peasants rights.

Scott portrays the village in pre-capitalist peasant society as a key institution, characterised by a variety of social arrangements designed to insure village members against a subsistence crisis. Implicit in the moral economy analysis is the proposition that the longevity and success of a lord and his role rests on the quality of the subsistence guarantee he provides his clients. For elites, the peasantry's subsistence ethic means that they must not invade the subsistence reserves of the poor and that, furthermore, they have a positive moral obligation

²⁹ According to Popkin (1979:2) "the moral economy is an economic approach not because it uses the methods of modern economists, but because it addresses important issues about markets and other economic institutions". It is moral not because it assumes peasants and elites were more moral and less calculating in pre-capitalists settings, but because it assumes that, under earlier institutions, the calculus governing behaviour leads to moral outcomes with respect

to provide for maintenance needs in time of scarcity (Scott, 1979:33). To the extent that the village elite respects this principle by protecting poor members of the community against ruin in bad years, their position is considered legitimate; they are leaders of a moral community. Thus, it is the subsistence ethic which provides the perspective from which peasants view claims on their resources, and the moral economy unifies peasants in the face of threats. According to a Popkin's (1979:15) account of the moral economy perspective, in this approach

"The growth of the central State, the commercialisation of agriculture, and the growth of population all serve ... to shift the terms of exchange against clients. (...) When the multistranded ties to patrons who provided all the essential services, insurance, and credits necessary for agriculture erode and the bonds dissolve, peasants will attempt to form new patron-client relationships with moneylenders, shopkeepers, and so forth. But whether there are multistranded ties to one patron or singlestranded ties to numerous patrons, a peasantry that can meet short-run subsistence through such ties will be effectively demobilised by virtue of its dependence links. Without a short-run subsistence crisis, then, peasants will not engage in political protest (Popkin, 1979:15).

The major alternative to the perspective of moral economy is the view, articulated by Popkin (1979, 1988b) who stresses that organising to supply themselves with public goods is precisely what peasant villagers find very difficult to do. Arraying himself against Scott, Popkin point out the difficulties of collective action at village level and the limited abilities of peasants to generate village insurance or welfare arrangements. Following Olson (1982), this new school recasts this individualistic peasant behaviour as rational rather than backward or dysfunctional. This is the rational-peasant approach³⁰, the core of which Popkin (1979:31) describes as follows:

"By rationality I mean that individuals evaluate the possible outcomes associated with their choices in accordance with their preferences and values. In doing this, they discount the evaluation of each outcome in accordance with their subjective estimate of the likelihood of the outcome. Finally, they make the choice which they believe will maximise their expected utility. (...) It is clear the case that, at different times, peasants care about themselves, their families, their friends, and their villages. However, I do assume that a peasant is primarily concerned with the welfare and security of self and family. Whatever his broad values and objectives, when the peasant primarily takes into account the

to peasant welfare than under the social arrangements and institutions of modern capitalism.

³⁰ Following Brown (1990), I have used the title of Popkin's book to characterise this approach rather than the term *political economy*, which Popkin and others seem to prefer, because the term *rational peasant* is equally descriptive and probably more precise.

likelihood of receiving the preferred outcomes *on the basis of individual action*, he usually will act in a self-interested manner".

The rational-peasant school stresses the entrepreneurial individualism of peasant life. According to Popkin (1988a:11-13), peasants are self-interested and that means that they are concerned with individual benefits, not group benefits, when contemplating cooperation. In particular, whether a self-interested person will contribute to a collective action depends on individual - not group - benefits. Thus, collective benefits from action do not necessarily provide individual reasons to participate. Rational egoists are interested in the benefits that their participation in the collective brings to them individually. If an individual's benefit does not exceed the cost to the individual of participating, then the individual will want to be a "free rider" - to benefit from the collective action of others while making no contribution. The common usefulness of organised activity was not sufficient to induce participation. As long as the only results of contributing to common goals were common advantages, peasant left the contributions to others and expended their scarce resources in pursuit of private interests. They opted for individual interests over common interests. They would take part in organisations only when there were benefits contingent upon participation³¹. According to Popkin (1988a:12), any attempt to organise for group action must recognise the distinction between individual and group benefits and must provide sufficient incentives to engage in collective action.

As Olson stated (1982:2) "unless there is coercion or some other special device to make individuals act in their common interests, rational, self-interested individuals will not act to achieve their common or group interests". The unorganised group - the group that has no lobby and takes no action - fits the main argument of Olson's and illustrates his central point: "that large or latent groups have no tendency voluntarily to act to further their common interests". The rational individual in the large group in a socio-political context will not be

³¹ According to Giap and Truong Chinh (1974: 23³¹) peasants "have the mentality of private ownership". Traditional peasant organisations "are all characterised by individual profit for each member of the group. None have a social nature, i.e., a common advantage for the entire group or for society ... We have yet to see peasants spontaneously organise societies which have a common usefulness".

willing to make any sacrifices to achieve the objectives he shares with others. There is accordingly no presumption that large groups will organise to act in their common interests. Only when groups are small, or when they are fortunate enough to have an independent source of selective incentives, will they organise or act to achieve their objectives (Olson, 1982:166-7).

Olson's "logic of collective action" can be understood as variants of the Prisoners' Dilemma (although Olson himself does not use it in his exposition). The well-known parable of the Prisoners' Dilemma has a great appeal for social theorists because it appears to provide a solid basis for a profoundly disturbing conclusion – that rational individuals cannot achieve rational collective outcomes. It seems to be applicable to all situations in which it is possible for some to co-operate while others are willing to co-operate. Where Olson and other collective action pessimists are surely right is the need for some coercion to back agreements. According to Wade (1988: 209), their emphasis on difficulties of strictly voluntary collective action – that proceeds from moral commitment, or habit, or a calculation of the benefits to each if each complies – is a useful counter to the optimism of those who believe that collective action and co-operation are a matter of teaching people what are their real common interests or a question of changing values in the direction of less individualism. On the contrary, as Wade's study on collective action in South India provides evidence, "the ability to make people do what they may not immediately want to do, by means of sanctioned rules, is a necessary ingredient for any arrangement for common pool resources".

Institutions which give people the assurance that if they do comply with the rules they will not be victimised – that those others who do not comply will be punished – greatly increase the chances of voluntary compliance. This is important because the law as mechanical barrier – whether local law or national law – can be effective when only a tiny minority of the population is likely to break it. Most of the observance of rules has to be more voluntary, because the cost of enforcement when large numbers of people comply involuntarily (through a calculus of evasion and punishment) is likely to be prohibitively high (Wade,

1988: 203). Olson leaves open the question of whether the source of selective punishment or inducement is inside the group or outside. One can interpret his argument in the way that he is simply saying that negative selective sanctions are an essential part of the design needed to sustain collective action. But he can also be suggesting that the sanctions must be organised from outside the group itself, specifically by the State.

According to Brown (1990:20-1), the moral-economy perspective suggests a strong hostility between peasants and the State for two reasons. First, the State represents an alien political force interested not in serving peasants but in remoulding, transforming or developing them. Peasants should not be expected to sympathise with (or even understand) the political agenda of their rulers. Peasants clash with the State especially when it is more intrusive. For example, the implementation of development policy provokes a high degree of resentment and alienation. A second reason for peasant resentment of, and alienation from, the State is material. States tax peasants and sometimes demand their labour as well. Whether for the purposes of development (as defined by ruling elites) or of support for a political structure that serves a landed class, elites rarely return to peasants much of obvious or immediate value. Less ambitious States may desire taxes and labour from peasants, more ambitious States may wish that the peasantry adopt different techniques, live in different places, and redirect its political loyalties to the State. Such official ambitions can be expected to provoke a resentful and alienated political outlook. Thus, peasant political activity is also often motivated by hostility towards the State.

However, the rational-peasant perspective questions the reasons for hostility between peasants and the State. With regard to cultural alienation, this perspective would cast doubt on the existence of such alienation and, more importantly, on the relevance of such alienation to political action. Peasants should be more interested in securing individual livelihood than acting against enemies of community values. With regard to the structural opposition between peasants and the State, Popkin (1979:34) focuses on the possibility that States will ally with peasants against landed elites. Enterprising peasants will therefore

regard the State not only as a structure for taxation but also as a potential ally in local struggles. Accordingly, central States can sometimes increase their own revenue by overthrowing patrons and raising total production enough to benefit both themselves and the peasantry. New institutionalist theorists does not discriminate among an infinite number of possible outcomes. What the State can do to promote rural markets and to help small-scale farmers will depend on how the government's own institutions are working. The new institutionalism emphasises choices, whereas the reality is frequently that outcomes are determined by constraints which have to do with the political settlement.

3. Conclusion

The aim of this chapter was to furnish a critical assessment of contrasting analytical approaches to understanding policy choices and outcomes on State intervention, paying special attention to theoretical interpretations of the nature of the State. The focus on the character of the State aims to highlight an issue often neglected in the analysis of results of rural development policies, that is, the State as a social phenomenon, and its role and limits in the management of reforms.

The approach adopted here differs from those theorists who see the State as separable from society and considered to have separate interests that it pursues, as defined by policy elites, detached from any form of social determination (Grindle, 1986). The approach adopted here should be distinguished also from what may be called *the logic of capital theory*, which suggests that the main role of the State is to maintain and stimulate capital accumulation in face of its "logical" and unavoidable tendency toward decline (De Janvry, 1981). The approach adopted here accepts the pluralist view of the State in that the formulation of State policy can be understood in terms of competition among organised interests groups in society to influence the decision-making process. However, we could doubt both the benign pluralist view, in which the public interest is thought to be best served when policies emerge out of competition

among large numbers of political interests (Dahl, 1967), and the rational choice pessimist view in which self-interested behaviour generates negative outcomes for society – a State that is captured by narrow interests, policies that are distorted in economically irrational ways by self-seeking groups, and public officials whose actions are always suspect (Bates, 1981).

The analytical approach adopted here is based on the new institutionalism development theory whereby the State and its institutions play a pivotal role in determining the performance of the economy. The State is considered to be “the primary agent of institutional intervention” as it has the capacity to stabilise or transform institutions, including markets (Stein, 1995: 129). The new institutionalism is an appropriate complement to the neo-classic framework when evaluating the role of the State in developing countries because the institutional analysis seeks to incorporate the historical context in which the State and its policies take place. Rather than insisting on one identical projection for the economic role of the State in all developing countries, institutional analysis is sufficiently flexible to allow for country-specific institutional structures that can serve to improve the efficiency of the growth path.

Furthermore, the State is seen invariably as a reflection of the hold over power within a society, representative of the dominant interest group. The institutions of a society - formal and informal - are created to serve those in possession of bargaining power, and the effort to uphold these institutions, even in the face of changes in transaction costs, information flows and their increasing disutility, leads to the formation of dominant interest groups (Harriss, Hunter and Lewis, 1995:10). However, in this view the “State can also play a crucial role in the assignment or reassignment of property rights according to society’s preferences for equity and justice” (Handoussa, 1995:136). Analyses of institution-building essentially have to deal with the exercise of political power and manipulation of economic advantage.

The problem of collective action has emerged as a major theme in the body of literature on institutional analysis. State intervention often has to be prompted by

campaigning interest groups, which are hard to organise for reasons explained by Olson (1982). Popkin's (1979) analysis of peasant politics (recasting individualistic peasant behaviour as rational rather than backward or dysfunctional) fits the main argument of Olson (1982), that a lack of organisation does *not* imply an absence of common interests, and people with common interest - *especially* if there are large numbers of them - do *not* automatically organise to further these. Incentives and sanctions are necessary to gather the resources to maintain an organisation, to prevent people from free-riding on collective benefits. Assuming that peasants are self-interested, Popkin (1979) analyses co-operation in peasant society based on task-specific incentives and calculations. He shows how enlargements of Olson's approach to "free riders" and collective goods help to explain the considerations whereby peasants will be able to organise successfully. But there is evidence of others factors are also at work when collective action is successfully organised³².

The selection of views about the question of what makes peasants act politically demonstrates the dangers of mounting generalisations about "peasantry" as a social type. Rural societies in developing world are marked by greatly varying features and tendencies both in their internal ecology and cultures, and in their connection with markets, State institutions and other external influences. If we must seek generalisation it should be less about the essential nature of peasant society than about these internal and external factors which influence peasant behaviour. In so doing we must expand the proportion of social structure which can be explained in terms of universal human nature acting in different contexts and facing different kinds of situation. Social, political and, indeed economic structures have to be reintroduced into the analysis. However, it is very important – and this is one other important contribution of the new institutionalism – not to do so to the exclusion of individual agency and the single person's power of self-determination. As Toye points out (1993: 332), "a structuralism which treats people only as determined by structures is no less objectionably reductionist than an individualism which treats society, polity, and economy only as the aggregates of self-determined individual action".

³² See for instance Wade (1988).

CHAPTER III - THE NATIONAL AND REGIONAL CONTEXT

1. Introduction

The purpose of this Chapter is to describe the national and regional context in which the POLONORDESTE and its integrated rural development projects took place. The central issue of this chapter is to give an appreciation of the political and institutional constraints on political action and the importance of existing institutional patterns in shaping the political behaviour of policy-makers and the policy process. The first important question is why the policy reform was undertaken or what political conditions lead to a decision to implement policy reform. This political and institutional context helps also to explain why the policy met the fate that it did.

On March 31, 1964, a military coup overthrew President Goulart and inaugurated the longest period of ostensible authoritarian rule in Brazil. The chapter will present, firstly, a brief general account of economic and political changes in Brazil between 1964 and 1985. Although our focus in this chapter is mainly political and institutional, we must note as well the economic legitimization strategies of the post-1964 regime. After 1974, with the gradual political opening of the regime¹, the influence of the technocrats declined and the military began to cultivate its regional and social bases more systematically. When the deteriorating economic situation undermined the resources and therefore the power of the State itself, the Brazilian regime also began seriously addressing the underlying economic difficulties. In these circumstances, it may be political considerations, and in particular the desire to restore State control and authority which induce a programme of policy reform. According to Ames (1987:148-149), the survival strategies available to the regime

¹ Here, I am using Collier's definition of "regime", which "comprises the formal and informal "rules of the game" for political succession (coups, coups within coups, election, military selection, etc.); political decision making (open-competitive, closed-bureaucratic); basis of support (inclusive or exclusive); and dominant modes of social control (repression, co-optation, formal-legal). The "regime" is typically distinguished from the particular incumbents who occupy government roles, the political coalitions that supports these incumbents, and the public policies they adopt. A change of regimes is thus identified by a major disjuncture in the nature of the rules of the game for political succession, decision making, representation, and control (Grindle, 1987:60; see also Collier, 1979:402-3).

implied a strategic coalition, and each coalition required a distinctive pattern of policy outputs. The goal of all these survival strategies was "popularity" for the military; the strategies themselves answer the question: "Popularity with *whom*?"

The second part of this chapter introduces a brief historical analysis of federal government policies in the Brazilian North-East. The strategic political motivation of the military regime to deal with two of the biggest problems of the rural North-East through POLONORDESTE – poverty and lack of agricultural modernization – was its search for legitimacy and political support. The electoral support from North-East elites was critical to the electoral cycles of 1978 and 1982. We should note that this period coincides with the elaboration and implementation of the programme and this fact is important to explain its outcome.

2. The National Context: Transition to Democracy and Decline of Bureaucracy Control Hegemony

Brazil has the physical size (8.5 million square kilometres), the population (150 million) and the natural resources to become a major power². Even though it is still viewed as an underdeveloped country, its economy was the eighth largest in the western world at the end of the 1980s. Brazil's potential for eminence has been evident for a long time, but the fulfilment of that potential has constantly been frustrated. According to Bruneau (1982:56) this unfulfilled potential provided justification for the military take-over in 1964, as the military was persuaded that the government of João Goulart was leading the country to ruin.

The aim of the coup according to the swiftly issued First Institutional Act, was "the restoration of internal order and the international prestige of the country". That constitutional rupture represented an ending of the era of democratic politics that

² This potential was recognised, for example, in a 25 page article on Brazil (The Economist, April 25, 1987), where Brazil was considered to be "the unstoppable colossus of the South; a major power already; the first big Third World Country knocking on the door of the club of developed democracies; and a potential United States in the next century".

had begun in 1945. The coup and its proposal for an authoritarian regime found its ideological postulates in the Doctrine of National Security³ and Development. As Bruneau (1982:59) puts it:

"The doctrine assumes the presence of internal enemies working in conjunction with international communism to subvert the state; considers economic development vital in order to create national power; emphasises the nation and therefore is intolerant of 'unreliable' elements within it; sees power as indivisible; and firmly believes in Brazil as a future world power".

The economic goal was to establish an irreversible process of capitalist development in the country, based upon the political alliance of three internal groups which supported the military: large sections of the national, industrial and agrarian bourgeoisie, the traditional rural oligarchies and the middle class. A dynamic of total control, in which the internal security apparatus assumed a commanding role, led to an abuse of power, arbitrary imprisonment, widespread torture, and the suppression of freedom of expression. The military arrested activists on the left, such as student leaders, labour union leaders, organisers of Catholic groups, and rural union and peasant league organisers. The repression was most severe in the North-East, where the peasant leagues and the recently legitimised rural labour unions were cracked down upon. Some peasant organisers suffered torture, while others simply disappeared, victims of summary execution.

The democratic experience of 1945-1964 was, from the time of Brazil's independence in 1822, somewhat unusual⁴. No long tradition of democratic participation had to be rolled back, since the country had been accustomed to authoritarian regimes of one sort or another. Further, there is no tradition in Brazil of autonomous groups and movements challenging the power structure; civil society

³ The conspirators shared a strongly anti-Communist view developed in the military's Escola Superior de Guerra (Higher War College), modelled on the U.S. National War College. The Cuban Revolution stimulated the Brazilian military to apply the theory of "internal war", where the primary threat was defined as coming not from external invasion, but from leftist labour unions, intellectuals, peasant unions, clerics, and university students ((Skidmore, 1988:4).

⁴ The anti-Communist view was not new in Brazil. In 1954 President Getulio Vargas had been driven to suicide by a military conspiracy similar to that against Goulart. Vargas, who had earlier been Brazil's president from 1930 to 1945 (the last eight years in authoritarian regime) had returned to the presidency by popular vote in 1951 with nationalist and populist policies.

was weak and largely unstructured, so few strong groups or associations had to be disbanded in 1964.

Historically, one of the reasons for Brazil's lack of social mobilisation is the fact that, before 1964, its political parties only slowly broadened their base of support.

According to Martinez-Alier and Boito Junior (1977:155), this lack of interests in party politics, which is clearly related to the history of local politics in Brazil, seems to have been reinforced by the growing limitations imposed on the political process by the post-1964 governments and their repercussions at the local level. The growing restrictions on local autonomy and budgets had a consequence that many mayors belonging to the opposition party, once elected and dependent thus of the generosity of the appointed state governors, switched to the government party.

However, from the late 1950s until 1964 there was a growing awareness among some politicians, including President Goulart and many in the opposition, that institutional impediments to mobilisation and democratisation had to be eliminated. As Bruneau (1982:57) stated, they strove to encourage political participation by mobilising the working class in the rural and urban areas to change the institutional structures. They hoped that this mobilisation would result in a broader power base for Goulart and strengthen the power of the president. The church also participated in this mobilisation by means of the CNBB (National Conference of Brazilian Bishops), the universities, rural unions, and the Basic Education Movement (MEB). However, mobilisation and agitation undermined the established institutional order without having the capacity to change it.

The military, with a great deal of civilian support, moved in to rule provisionally until it could be sure that populism, "demagoguery", and general agitation had been laid to rest and that Brazil was safely on the road to economic stability and a continuation of the existing socio-economic structure. In effect, the military came to occupy the State apparatus and consolidated its powers throughout that apparatus and the whole of society.

After the 1964 military coup, the problem for economic planners in Brazil was to bring about the rapid recovery of an economy which had been operating far below its potential. The absence of any tradition of macroeconomic planning in the bureaucracy, combined with this growth imperative necessity, did not permit the adoption of decentralisation which might have led to a slow process of relaxing institutional rigidity. The scarcity of people with experience of such policies demanded that the available personnel be concentrated in a few of the most crucial organisations in the official set-up, and these became the decision-making centres. The conflicts between the objectives and goals of the various proposed policies could not be resolved between social groups and regions without threat to the political regime. It was therefore necessary to train technical staff to make decisions on what the stability of the economic system would be in the long run (Hadded, 1978).

In the period 1964-1974, we are dealing with what O'Donnell (1979) calls a "bureaucratic-authoritarian" regime. The bureaucracy is, thus, the most dynamic element of the centralised State. In conditions where most mobilisation is discouraged, the new role of the bureaucracy is to promote a surrogate mobilisation around the bureaucratic goals of the ideology of national economic growth and national security. According to Foweraker (1981:230), "planning, regional and sectoral agencies practise the ideology of development, while the military apparatus and specialist police and investigatory organs practise the ideology of national security"; and, the two practices were "conscientiously linked". In practice the civilian and military bureaucracies in Brazil after 1964 "cannot be distinguished".

In economic terms the military has succeeded spectacularly in attaining for the country the status of a major power. With the exception of the first three years (1964-1966), the post-1964 governments gave enormous impetus to modernisation. The Costa e Silva (which replaced Castelo Branco in 1967) and Medici (1969-1974) administrations implemented a brutal repression, but they also presided over the beginnings of Brazil's economic "miracle". According to Ames (1987:143), during this period, growth rates were enough to grant the regime an important claim to

legitimacy. With the gross national product increasing by more than 10 percent annually, the government appeared to enjoy considerable popularity, particularly among the rapidly growing middle and upper middle classes constituting its primary clientele. Regime propagandists had no difficulty linking rapid economic growth with social peace.

The government pursued an essentially capitalist approach in which it fortified markets, improved the functioning of the price system, and increased the State's role in the economy. The State played an enormous role in the economy as a manager by means of fiscal measures or outright regulations, as an economic agent through the ownership of banks and other financial institutions, and as a producer in the steel and petroleum industries. If there is some debate about whether the post-1968 growth was really attributable to government policies or was merely a continuation of the boom-and-bust⁵ syndrome of Brazilian economic history, there is no debate at all, concerning the huge role of the State in the economy.

This regime change also had important implications for the rural sector. It inhibited, because it was no longer politically necessary, any structural transformation in the pattern of land use. Within the new regime a carefully planned, but ineffective, land reform programme appeared: the Land Statute of November 30, 1964, was the agrarian reform legislation. It provided means by which the State could expropriate unused, privately held land in return for indemnification. The programme of land redistribution, although adequately legislated, staffed and funded, did not enjoy sustained support and was opposed by the landed elites of the coast and *sertão*.

Although adequately legislated and staffed since the "Land Statute" of November 1964, reform had not enjoyed sustained support and was rejected by the landed

⁵ The old view of Brazil was as a boom-or-bust commodity producer. That view originated in the sixteenth century, when sugar boomed, opening up the country's North-East; sugar dwindled as an export earner over the next couple of centuries when faced with fierce competition from the West Indies. Gold came next, being discovered in the southern state of Minas Gerais in the eighteenth century. As the gold ran out, coffee took over, accounting, by middle of the nineteenth century, for half of Brazil's export earnings. By the end of the century Amazon rubber was all the fashion, symbolised by the rubber baron's extravagances. The boom fizzled out when an English botanist smuggled a seedling from an Amazon rubber tree to Malaya, where it thrived much more cheaply than in Brazil (The Economist, 1987:4).

elites. However, if the legislation and institutional framework were rarely used to change the structure of landholding in the North-East hinterland or other rural areas, it provided the means by which the State could respond to specific instances of rural protest with gradual land expropriation and entitlements of land, especially in State-sponsored colonisation projects on the Northern frontier in the Amazonia.

According to Martins (1990:249), the coup of 1964 and the land tenure policy of the military regime struck down the peasant movement, the revolt in the countryside.

The message sent to Congress by General Castelo Branco proposing constitutional reform to allow approval of the Land Statute clearly established what the aim of the land reform would be under the military: to decapitate the peasant movement. That is, to separate rural workers from left-wing political groups such as the Communist Party (PCB) and the Peasant Leagues, which were deeply and actively involved in the conflicts, providing them with political leadership and a sense of historical perspective. The dictatorship gave a new military and geopolitical direction to the struggle, in an attempt to by-pass the rural workers, while at the same time via fiscal incentives, transforming those who control large-scale capital into landowners.

For the rural proletariat, minimum wages, social security and other labour legislation provide the legal apparatus and institutional rationale for solving problems of working conditions and wage disputes. Similarly, access to credit, infrastructure projects, extension services, and rural amenities such as education and health services for rural small holders, all placed resources in the hands of the State to manage rural protest and co-opt rural dissidents. Thus, there was an increasing belief that the State was becoming the "new patron" (Grindle, 1986; Soifer and Howe, 1982; Dias, 1978).

Two principal objectives of modernisation strategies were to transform rural technology and production relations in such a way as to reduce conflict in the countryside and, at the same time, to remove agricultural bottlenecks to rapid industrialisation (Bicalho and Hoefle, 1990). The benefits of subsidised

technological innovation and capital investment were heavily concentrated in large-scale enterprises, reinforcing the inequitable distribution of rural income and wealth.

The strong bias of modernisation policies towards export crops and large enterprise was modified slightly in the 1970s with the re-emergence of severe urban food supply problems. Special credit and investment programmes were introduced to capitalise production and intensify commodity relations in small-scale family agriculture, traditionally a major source of domestic food staples. In the 70s, the discussion on the land tenure system and the need or appropriateness of political structural reforms was put back: the agrarian problem was no longer the existence of the "latifundio" but the inefficiency of the "minifundio".

The "conservative modernisation"⁶ strategy embodies the view that the productivity of traditional producers can be increased by developing and inducing the adoption of new industrialised agricultural technology, regardless of their size or conditions of access to resources, because of the assumption that technology is "neutral" to scale. Based on this assumption, both "latifundio" and "minifundio" can potentially benefit equally from technological innovation, transforming themselves into modern capitalist enterprises. The implication of this strategy is that agrarian reform is unnecessary on economic grounds, thus preserving the conservative alliances between the authoritarian military state and "latifundio" landlords. Indeed, the so-called "conservative modernisation" government policy, has been understood to have concentrated holdings and forced people off the land⁷.

⁶ This approach, in which subsidised institutional credit was the main agricultural policy, predominated from 1965 to 1979 (See Kageyama and Graziano da Silva, 1987 and Martine, 1989).

⁷ In 1984, according to the Movement of Landless People, 4 percent of the people owned 67 percent of the cultivable land, while the poorest 71 percent of people were squeezed on to 10.9 percent of the land. These small farmers feed Brazil. Of the food staples, they provided almost 28 percent of the rice, over 55 percent of the maize, over 66 percent of the beans, and almost 78 percent of manioc. But over two-thirds of them live below the poverty line, receiving only half of the statutory minimum wage or less. Although Brazil is the world's second largest agricultural exporter, malnutrition causes almost seven out of every ten deaths among children under five years of age (MacDonald, 1991:3). See also Graziano da Silva (1982 and 1987).

In 1973 and 1974, Brazil's military regime experienced two shocks. The first blow was the dramatic increase in oil prices following the Arab-Israeli conflict. The oil crisis exposed the vulnerability of the "economic miracle" that had legitimated the military and made Brazil the toast of the developed world. The second blow was the regime's electoral defeat at the end of 1974⁸. The stunning electoral defeat suffered by the military government signified a growing rejection by Brazilians of the military regime itself. The 1974 electoral campaign was the first time the opposition was able to make its case about the gap between rich and poor, the deterioration of urban health conditions, the rights of workers, and other issues. Civil society also began to stir. The dualistic expression "State versus civil society" became quite common in Brazil, by virtue of the struggle against authoritarian rule during the 1970s.

The years 1974 to 1985, are what Stepan (1988) calls the "democratising period" in which new movements within civil society presented challenges to the authoritarian State. For Stepan (1988:4-5), "civil society" means "that arena where manifold movements (such as the church, women's groups, neighbourhood associations and intellectual currents) and civic organizations from all classes (such as trade unions, entrepreneurs, the press, the Association of Brazilian Lawyers) attempt to constitute themselves in an ensemble of arrangements so that they can express themselves and advance their interests".

However, Stepan explicitly treats "civil society" and "political society" as distinct categories. For him, "political society" in a democratising set means "that arena in which the polity specifically arranges itself for political contestation to gain control

⁸ As part of the measures geared to controlling the free play of the country's political forces, the military government by the Institutional Act No. 2 of 1965 abolished all previous political parties and increased considerably the power of the executive. Although the later constitutions contained the principle of a multiple-party system, the new electoral laws established norms for the creation of new parties which in practice only permitted a two-party system. Thus, in the 1974 election the electorate had the choice between two institutional parties: The Aliança Renovadora Nacional (ARENA), the government party, and the Movimento Democrático Brasileiro (MDB). Despite the formal restrictions and the pressures exercised and privileges enjoyed by the government party throughout the electoral campaign, the MDB obtained an impressive victory in the most important states. Not only did the MDB obtain the legislative majority in these states but it succeeded in winning federal deputies and senators in areas in which the ARENA had never thought it would lose (Martinez-Alier and Boito Junior: 1977:148).

over public power and the State apparatus". Thus, a full democratic transition must involve political society, and the composition and consolidation of a democratic polity must entail serious thought and action about those core institutions of democratic political society - political parties, elections, electoral rules, political leadership, intraparty alliances, and legislatures - through which "civil society" can constitute itself politically to select and monitor democratic government. As Stepan (1988:6) points out:

"In this [democratising] period civil society almost never came to the defence of political society. The regime's strategists were understandably happy with this pattern of behaviour of the opposition that supported *liberation* more than *democratisation*".

In this process of controlled liberation directed towards a conservative democratic system, there have been tremendous vacillations and ambiguities as the military sought to remove itself from direct power (and thus from blame), while maintaining its prestige. According to Bruneau (1982:64-65), the causes of the opening are varied and interact with one another in very complex ways indeed. For him, legitimacy, and its loss, is at the forefront, since it is a problem for any military regime which cannot base its right to rule on the interests of the people as reflected in elections. Besides questions dealing directly with legitimacy, there are those related to the increasingly difficult problem within the military, as an institution, of maintaining unity after sixteen years in power. These are related in turn to the tremendous changes which took place in Brazilian society during the period of military rule. By the early 1980s there was a large middle class, a highly qualified industrial working class, even a large entrepreneurial group worried about the huge State role in the economy and society. The modernisation of society has resulted in illegal strikes by workers, protests in the media and by entrepreneurs through whatever political channels they can find, and the formation of groups, where the church has been active.

During the most severe repression, the Catholic Church defined a new role for itself as spokesman of the ignored and repressed majority of the population and was involved in the protection of political prisoners and the denunciation of State

violence. According to Bruneau (1982:67), because few other groups or organizations have been allowed to exist, the church, with its elaborate structure, was sought out and by and obliged to become involved with elements such as protest groups, students, and political parties, which sought protection and legitimacy. In the Geisel years, it began to achieve both tighter co-ordination at the top, in the National Conference of Brazilian Bishops (CNBB)⁹ and at the grass roots level through its Base Christian Communities (CEBs - Comunidades Eclesiais de Base)¹⁰.

Land tenure was a vital area of concern and of the church's involvement. Since other institutions of civil society were either absent or unable to function effectively, the church offered the only resource for many of the landless and their would-be organisers. The church first became involved in the Amazon region, where land was rapidly becoming concentrated, and the people being evicted had no means of defence and no one to raise a protest except the church. In 1971, Dom Pedro Casadálga, Bishop of São Félix do Araguaia in Mato Grosso, described and analysed the situation in his diocese in a 125 page document ("A Church in the Amazon in Conflict with the Latifundia and Social Marginalization"). Once attention was drawn to the land tenure issue, it became clear that the same problem was endemic throughout Brazil. In 1975 a Comissão de Terras (Land Commission) was founded linked to the CNBB for the purposes of assessing reform programmes and publicising and denouncing cases of injustice, and to encourage diocesan groups to organise legal assistance and undertake information campaigns aimed at peasants and pastoral agents. In 1977 the commission, now called the Comissão Pastoral de Terras (Pastoral Land Commission), convoked the First National Assembly on the Land Pastoral in order to develop further strategy.

⁹ The National conference of Brazilian Bishops, founded in 1952, is a church organization that acts socially and politically to implement the conclusions reached in the periodic synods of bishops.

¹⁰ The Base Christian Communities are small groups of local people who organise around an urban or rural parish. Stepan (1973:144) describes the CEBs as "Church grass roots communities which have been not only an alternative form of cultic organisation but also 'schools' for educating the exploited in their inalienable human rights"

The bishops, assembled for the eighteenth General Assembly of the CNBB in February 1980, overwhelmingly approved a scathing critique of Brazil's land tenure structure and government policies which, in their view, aggravated this situation. The bishops' position, as reported in this document and as supported by their institutes and publications, brought them into direct conflict with the regime. By the early 1980's, the political opening on the national level emboldened some landless peasants and their leaders to organise and demand land redistribution. These groups were often linked to the radical Catholic clergy, who in the late 1970s and early 1980s, were especially active in the Amazon basin, the Centre-West, and the North-East (Bruneau, 1982:85. See also Martins, 1990).

After 1974, the influence of the technocrats declined. With its shocking defeat in the 1974 election, with civilian pressure for liberation mounting, and with the increase in oil prices threatening the "economic miracle", the regime embarked on a gradual political "opening" (abertura). The newly installed administration of General Geisel (1974-1978) had already committed itself to a gradual democratisation, but after these twin shocks it was plain the military would need a new claim to legitimacy if it wanted a significant role in a pluralistic political future. Since formal withdrawal from power was never intended to end military influence in policy making, the military began to cultivate its regional and social bases much more systematically. Clientelistic practices increased sharply (Ames, 1987; Cammack, 1982).

By 1975, Geisel began talking about social policy. According to Ames (1987:147), the president went on to link socio-economic liberation to the post-oil crises economic difficulties, and boasted of his success in avoiding recession and unemployment and even continuing to innovate in social policy. In a televised speech in August 1, 1975, the president left little doubt of his intention:

"Relaxation should not be only political, nor even predominantly political. What we seek for the nation is an integrated and humanistic development, capable of joining all sectors of the national community - political, social and economic (Cited by Ames, 1987:147).

Policy was inseparable from partisan activity. In a speech to the leadership of the government party in October 1975, the president emphasised his desire for an

electoral victory by the party. Three elements, according to Geisel, were crucial for an ARENA triumph¹¹: the programme of the party, its leadership, and the deeds of the government. The president's commitment to social "abertura" was widely accepted by Geisel's successor, João Figueiredo (1979-1984). Even more than Geisel, Figueiredo's speeches stressed wage increases, expansion of education, programmes to reach the poor (especially in rural areas), and the central role of agriculture (Ames, 1987:148).

Starting with Geisel's administration and continuing through Figueiredo's government, the Brazilian "opening" had a strong element of deliberate decompression (later rebaptized normalisation and eventually redemocratization). According to Lamounier (1990:90), it amounted to a recognition among the regime's power holders that an indefinite monopoly of power by means of hegemonic party would not be viable. The opposition seems on the whole to have evaluated the situation correctly and to have sought to explore the political spaces that appeared at each moment. The formidable impact of the 1974 elections helped it to organise under the label of the Partido do Movimento Democrático Brasileiro (PMDB) for electoral purposes, while at the same time establishing bridges among a variety of social movements and associations then increasingly (re)politicising. As pointed out Lamounier (1990:90), the government also benefited in many ways:

"Decompression helped [...the government] to contain the growing autonomy of the repressive apparatus, which had seriously compromised ... the country's image abroad. [...] the government could capitalise on the political benefits of an atmosphere of progressive 'normalcy', as if exchanging losses of legitimacy arising from discontent with its past for gains based on the increasing credibility of its intentions as to the future. Paradoxically, the erosion of authoritarian legitimacy since 1974 amounted to a revitalisation of government authority - since such authority was thus invested in the role of conductor of the decompression."

¹¹ President Geisel, defining in 1975 the role of ARENA, was able to say: "it gives political support to the government; it approves measures in the legislature, and it popularises government activity". With the representative function of Congress severely compromised by the exclusion of spokesmen for majority interests, and the legislative function in all major areas taken over by the executive branch, the continued commitment of successive electoral victory as a source of legitimisation has led, after an initial period of hostility to the "professional politicians", to a resurgence of clientelism and manipulation of government patronage for electoral ends (Cammack, 1982:61).

According to Lamounier (1990:89), the gradual and peaceful Brazilian "opening" seems unique by virtue of the fact that it was essentially an opening through elections. It was not a result of sharp mass mobilisation and was not precipitated by dramatic or external events. A gradual accumulation of pressures was channelled through the electoral process. Election results functioned as indicators of the degree to which the authoritarian regime was losing legitimacy and, in turn, helped to aggregate further pressures against it. In 1984 the authoritarian regime was greatly weakened but not to the extent of decomposition. The erosion of authoritarian legitimacy from 1974 amounted to a revitalisation of government authority because it was invested in the role of conductor of political liberation. However, "abertura" had to mean more than just political liberation. If the military wanted to prevent social unrest and avoid military intervention in future government, political relaxation without a social component could not be secure. As Ames points out,

"...the military was never ideologically monolithic, and the inevitable fragmentation accompanying the long years of military rule further reduced the unity of military thinking. Still, most officers were strongly anti-Communist, pro-Western, pro-capitalist and anti-populist. Military officers were intent that a new civilian regime should not reverse the gains of the post-1964 period. They did not want to see the politicians they had overthrown return to power. They definitely did not want too much probing into the Brazilian version of the "dirty war" against subversion. [...] To the degree they could induce the population to support conservative politicians, and to the degree the military commanded respect, civilian rule held less danger." (Ames, 1987:149)

The party reform of 1979 ended the compulsory two-party structure established by the first military government in 1965. The Figueiredo Government, knowing that the continuity of electoral disputes within the two-party framework would inevitably lead to a major defeat, resorted to its majority in the Congress and in the Senate and changed the legislation, precipitating the return to a multiparty system. According to Lamounier (1990:91), the ambiguity of the opening was brought to the surface. On one hand, the procedure was formally impeccable, since the government did have the majority, and the reform was demanded even by some sectors of the opposition; on the other, the evident intention was to fragment the opposition party, the PMDB, in order to keep the agenda under control for longer and to set the conditions under which the new party structure would be formed.

In 1982 there were direct elections at municipal and gubernatorial level. In the 1982 elections, in a last desperate attempt to maintain eroding national support, the government rammed through the federal Congress before the election an electoral change which took advantage of the traditional political system prevalent throughout the less developed North-East. The new law effectively prohibited any kind of alliance among the opposition parties and required that votes be cast on a strictly party basis at all levels (councillors, mayors, state and federal deputies, governors and senators). Care was thus taken to avoid a serious defeat for the government, since the election would affect the composition of the Electoral College that would choose the next president. As Hoefle observed (1985:28), many national leaders were from the North and the North-East and they were perfectly well aware that local loyalties override any higher-level ones. The ruling national politicians gambled correctly that North-Eastern voters would cast their ballots for higher level candidates of the government if they wanted to vote for the choice for mayor and councillor¹².

The North-East proved to be the salvation of the PDS (Partido Democrata Social, the new government party which replaced ARENA in 1979) in the election. The small-town politics of the country were of great significance for maintaining the conservative regime in power, as was clearly evident in the 1978 and 1982 elections. In these elections, the interior votes outweighed the votes of the capitals, and the North-East with its numerous small states helped maintain the appearance of a government majority at the state and federal level (Hoefle, 1985:27-8).

After the 1982 election, popular support for the military government rapidly eroded to the point that the opposition came to power. A new civilian president, Tancredo Neves, was selected in January 1985, by the Electoral College. Though Neves

¹² In an analysis of the Brazilian voter in democratic transition, Mettenheim (1990:39-40) shows that the different levels of campaign participation across Brazil indicate the uneven development of mass politics and mass belief system in the country. The higher levels of participation in rural areas may give impression of a participatory rural political culture. However, the prevalence of face-to-face types of participation among rural respondents (except media exposure) suggest, along with other data and the secondary literature, that clientelism and patronage were the principal realities of rural politics, not democratic forms of participation.

represented the opposition, his PMDB (Partido Movimento Democrático Brasileiro) party had grown out of the "tamed" opposition MDB (Movimento Democrático Brasileiro), permitted in the earlier years of the military regime. During the campaign it became increasingly apparent that the opposition would win the presidency and many prominent North-Eastern politicians gradually cut their ties with the PDS. These "dissidents" established a new party, the Partido da Frente Liberal (PFL), and they formed a tactical alliance with the opposition parties which gave them a majority in the Electoral College. José Sarney, the former civilian head of the governing party (he had defected to the opposition in 1984) and an important North-Eastern politician, member of the original PDS dissident group, was his vice-president.

During the presidential contest, in their haste to assure victory in the Electoral College, the national opposition leaders allied themselves with the whole conservative leadership of the North-East. The opposition alliance represented a "well constructed articulation of interests" among the elites in Brazil. At the same time it satisfied the opposition as it was thought that it could unite them and bring them to the power. However, Neves died (in April, 1985) before taking office and was replaced by his vice-president. The Sarney government inherited a public sector in deficit, the largest absolute international debt of any Third World Country (US\$ 112 billion), a high rate of unemployment and inflation at 250 percent per year. Even before the death of Tancredo Neves, a number of North-Eastern politicians were awarded ministries and other important government posts in return for support rendered during the presidential campaign. The Brazilian authoritarian regime was ending by peaceful means.

A new constitution was drafted during 1987 and 1988. The lack of interest in promoting agrarian reform was evident in the new federal constitution. During the Constituent Assembly of 1987/88, the União Democrática Rural (UDR), representing the powerful large landowners lobby of the South and South-East, was able to empty the agrarian reform of any practical meaning. "Productive land" was defined so broadly that it would have been difficult to expropriate unused forested lands let

alone ranch land. Representatives of the conservative political parties of the North and North-East helped this lobby's cause by voting in block to protect their own interests. The empty pastures of the North-East are, thus, treated as "productive land" and cannot be expropriated. Without an agrarian reform through legal channels the only alternative left open is land invasions which, like the early 1960s, would usher in a return to political instability, repression of worker and peasant movements and more conservative modernisation which would complete the process of peasant expropriation.

The first fully democratic presidential election for 26 years was held in 1989. In an atmosphere of growing political confidence, the traditional parties were pushed to the side in these elections. Against all expectations, the contest became one between the right-wing candidate Fernando Collor (a former governor of Alagoas state, located in Northeast region) and the left-wing candidate Luis Inácio da Silva ("Lula"). Lula is the most famous union leader in the post-1964 period. He emerged as a nation-wide workers' leader from the metalworkers' strikes of 1978, 1979 and 1980. He was one of the founders of the new "Workers' Party" (PT) and its president for some years. He was elected as a Congressman in the 1986 elections. In the 1989 presidential elections he was the Workers' Party candidate. In a run-off election, Collor defeated Lula by a margin of just over 5 percent, and took office in March 1990.

The next section will discuss Federal policies for the North-East region, and the increasing role of federal government intervention in undermining the power of the North-Eastern traditional elites. However, as we shall see later, it does not mean State reconsideration of the situation of Brazil's disenfranchised peasantry. Rather, these interventions represent attempted solutions to the "agrarian question" under conditions of rapid economic growth, industrialisation and urbanisation and the need to create an environment conducive to the expansion of the capitalism in the countryside. The incorporation of the rural poor into its economic model would be especially effective in the military government's search for legitimacy.

3. The Regional Scene and Local Politics

The North-East is, by official designation, a nine state region of Brazil¹³, with an area of 1,542,271 square kilometres, about 19% of the total area of the country. Possessing a climate typical of equatorial and tropical regions, the North-East presents quite wide variations in rainfall, vegetation and fertility, and may conveniently, according to Andrade (1979:9) be broken down into four subregions: The *Zona da Mata*, with a hot, humid climate and two well defined seasons, one rainy the other dry; the *Sertão*, also hot, but dry, where droughts have periodically destroyed the vegetation, wreaked havoc on the animals, and forced the people to migrate (this climatic diversity has produced, since the colonial period, two diverse systems of agriculture - sugar-cane and cattle raising); the third, transition zone is called the *Agreste*, with its small land-holdings and mixed farming, with some stretches of land almost as humid as the *Zona da Mata*, and others as dry as the *Sertão*; the last zone *Middle North*, is a transitional zone from the North-East to the Amazon region and the Central Plateau, where population density has traditionally been low. However, in recent decades this zone have been experiencing the strain of rapid colonisation and violent conflict over land ownership.

The North-East is still an area with acute problems of extreme poverty and starvation. According to data from IBGE, through the Pesquisa Nacional por Amostra de Domicílio (Domestic Census) relating to 1990, the North-East, with 21.8 million poor, had 55% of the poor of the country - 63% of the rural poor and 48% of the urban - as well as, the largest incidence of poverty - 51% of the population. In the rural area of the North-East this number increases to 69% (See Albuquerque, 1993:56-58). Poverty in the agricultural sector is one of the most important factors

¹³ It includes Alagoas, Pernambuco, Paraíba, Rio Grande do Norte, Ceará, Maranhão, Piauí, Bahia and Sergipe. The traditional North-East included only the first five of these states. In 1936, with the creation of the "Drought Polygon", this area was expanded. A small section of Minas Gerais also became part of the polygon for the purpose of Federal assistance. The "polygon" is the area in the North-East most susceptible to severe climatic variations and sporadic drought conditions and that is eligible for federal funds for drought relief.

inducing rural-urban migration since 1950. This situation is aggravated in the Sertão and Agreste by the periodic droughts that devastate the land, kill the cattle, crops, and dislocate hundreds of thousands of impoverished peasants and landless agricultural labourers in mass migrations to coastal and more hospitable agricultural areas.

Until 1959, the underlying causes of the plight of the North-East had commonly been viewed as environmental rather than economic and social, most intervention having been in response to specific droughts. In this period, State intervention took place basically through the creation of regional agencies, and was characterised by a lack of co-ordination of State actions. Such was the case with the National Department of Works Against the Drought (DNOCS) founded in 1945¹⁴. Such also was the case with the Bank of North-East (BNB), created in 1952 and the Alcohol and Sugar-cane National Institute (IAA), created in 1933.

Apart from the construction of hydroelectric facilities, reservoirs, dams and roads (the major form of Federal investment in the semi-arid interior) and the continuous support given to the big planters through the BNB and IAA, the commitment of the Federal Government to development in the North-East was practically nil. According to Galvão (1988), this was in sharp contrast to its direct involvement through massive investments in big industrial establishments, and subsidization of private industrial initiatives in the most industrialised areas of the country.

During this time the political arena in the North-East had been characterised by opposition between the sugar-cane bourgeoisie and the cattle raising oligarchy. However, the latter traditionally dominated the local institutions of the State, and federal intervention through the DNOCS reinforced their oligarchic power. DNOCS had concentrated on the building of dams (acudes) and drilling of wells for irrigation,

¹⁴ The increasing dissatisfaction with the lack of action taken against the drought, considered officially as a national disaster since 1877, and with limited success of the measures which had been implemented led to the creation of the "Superintendência dos Estudos e Obras Contra os efeitos das Secas" in 1906. It was renamed two years later as the "Inspeção de Obras Contra as Secas" (IOCS), and again as the "Inspeção de Obras Contra as Secas" in 1918, with its headquarters in Rio de Janeiro. After the 1945 drought IOCS was given the present name, and its headquarters was transferred from Rio to Fortaleza (Hall, 1978)

and on the building of non-paved roads. The creation of 'labour fronts' for the building of roads and dams in periods of severe drought¹⁵ was another aspect of DNOCS activities. Oliveira (1981:170) exemplifies how these occurred:

" Most of the dams and wells were located in the lands of cattle-raising farmers ... The roads ... in practice benefited only the cotton economy: in fact, cotton was the only product of the Northeast hinterland to be sold outside the region in significant volume. ... wages in the labour fronts were often paid in kind, wage goods being bought by the DNOCS from the landowner at a high price. Applicants recommended by the *coroneis* were given priority in the fronts, which thus became the object of clientelistic practices. Payments to fictitious workers or even funds of non-existent works, made available by the DNOCS, were also appropriated by local oligarchy, which had in effect, complete control of the government agency in the region."

Unlike the situation at the federal level, the oligarchic hold on the State in the North-East remained unchallenged. Political power presented a clear class content, and relations between the State and the subordinated classes were devoid of the ambiguities of the populist regime at the national level¹⁶. During this time, the State was nothing but an instrument of oppression used by the landowning class. Thus, when the League movement started, the only leaders who managed to succeed were those who spoke out openly against public power, a symbol of the complex of interests represented by the *coroneis* (Furtado, 1965; see also Page, 1972).

This process of increasing political awareness and activity had accelerated remarkably in the North-East during the ten years which preceded the military coup. For Furtado, this process - together with a strange paradox in agricultural development - were responsible for the revolutionary potential in the North-East in the early 1960s. This paradox consisted of the fact that, increased production aggravated the problem of economic inequality. As Furtado (1965:159) pointed out:

¹⁵ DNOCS became closely associated with what were known as the "drought industrialists", the *industria da seca*, a term used to describe anyone who exploited the drought situation for his own profit (Hall, 1978:8).

¹⁶ After 1937, there was rapid industrial growth in Brazil. During the Vargas government the urban proletariat became a principal political interest. Vargas through the use of government funds, public workers, and social welfare programmes, manipulated the working class in order to counterbalance traditional political powers, which were located primarily in the North-East. The working class, in accordance with the salaried middle class, professional people, middle-level military officers, public functionaries and bureaucrats, provided a firm basis for "populism", the political phenomenon that appeared during the Vargas years and provided the structure for Brazilian politics until the military coup of 1964 (Roett, 1972).

"...in the Mata zone, expansion of the cane fields has brought even greater misery to the workers, depriving them of the possibility of producing their own food requirements. In the Agreste, valorisation of the stock-rearing industry has created pressure for a raise in the land rent paid by a worker whose productivity is stationary or declining. In the Sertão, improved conditions for expanding the cattle industry, created by efforts of the government, and increased cotton production with the aid of official financing, have allowed the population to increase, which requires a corresponding growth in food production on lands that are increasingly subject to climatic irregularities."

The growth between 1955 and 1964 of the *Ligas Camponesas* (Peasant Leagues) in the North-East (mainly in Pernambuco and Paraíba states), should be seen as a consequence of the overall situation of the peasantry. According to Galjart (1964:20), the leagues arose in a situation where the personal bond between peasant and landowner had become weaker or had disappeared, where the peasant found himself unprotected, and where his standard of living had fallen relatively and maybe even absolutely, he was willing to follow anybody who promised to improve his lot. It was a situation where there was room both for the power hungry and the morally indignant, and both had begun to organise the peasants.

Within the complex system of relations of production in the sugar-cane region the workers struggled against the landlords as proletarians (for wages) and as internal peasants (for land, and for elimination of the semi-compulsory forms of labour such as the *cambão*, an exchange of labour for usufruct rights). According to Oliveira (1981:171), pressures for the removal of the semi-peasants from the land and for the intensification of semi-compulsory labour increased social conflict to a point of high tension. The "pax agraria in the North-East" was disrupted, provoked by both the local politico-economic situation and by the economic expansion of the Centre-South into that area.

In the late 1950s, the explosive political and social situation of the North-East led to a major shift in the role of the central government in the region. In 1959, the North-East Development Superintendency (SUDENE) was created and the State adopted a new interventionist approach, characterised by a co-ordinated planning effort at all levels. The introduction of regional planning coupled with federal financing of industrial investment in the North-East, inaugurated a new and decisive stage in the process of economic integration of the region into the national capitalist system. The

new stage was characterised not only by a new form of economic expansion of the Centre-South, based on direct industrial investment, but also by the transformation of the structure of the State in the region¹⁷.

After the creation of SUDENE, a regional policy of industrialisation was implemented based on the transfer of financial resources from developed regions to the North-East, via the mechanism of fiscal incentives. According to Ferreira (1984:77) industrial accumulation became the dynamic pole of the regional economy and the interests of the agrarian oligarchy had to be redefined. In this sense, agricultural development policy was re-oriented in order to stimulate the penetration of capital into rural areas, and was reduced almost entirely to supporting the frontier expansion and settlement programme in Maranhão and to financing large cattle and agro-industrial projects which would benefit the landowning class. This development strategy did not therefore seriously threaten the interests of the existing dominant agrarian class, especially when no substantial measures of agrarian reform were put in practice.

The defeat of populist and reformist forces in the 1964 coup, and the repression of rural labour movements, created the immediate preconditions for more ambitious modernisation policies and dictated their specific form. When order was restored to the North-East's interior through a process of massive labour repression in the rural areas, the regional problem lost much of its urgency. "The poorest area of the Western Hemisphere" become more a matter of rhetoric in the speeches of the Federal authorities than a pressing issue of public policy.

The need to integrate all regional plans into national planning activities was stressed in the Government Programme of Economic Action (PAEG), 1964-66, which was the economic programme of the first president of the post-1964 regime.

¹⁷ According to Oliveira (1981) SUDENE was created as an instrument of planned intervention, aimed at overcoming inter-regional class conflict and at the promotion of capitalist expansion of the Centre-South. For him, the objective of SUDENE "was to remove the cotton and cattle oligarchy from the state in the Northeast", which "interested, for completely different reasons, all social forces in the region; i.e., the popular classes, the local industrial bourgeoisie, the international associated bourgeoisie, and the popular classes of the Centre-South." See also Oliveira, 1977.

The desire of the federal government to co-ordinate all planning activities resulted in an administrative reform law (February, 1967), which reorganised the federal bureaucracy, transferring responsibility for regional co-ordination and planning to a new Ministry of the Interior, which became the means of communication among all federal agencies operating in the North-East. While SUDENE retained its co-ordinating role in terms of regional investment policy, it was administratively subordinated to the Ministry of the Interior.

The increasingly important role of the central government in planning and resource allocation signified SUDENE's subordination to national priorities and the virtual end of the regional autonomy which the agency enjoyed prior to the 1964 coup.

According to Roett (1972:162),

"the growing political and administrative centralisation of the military regime precluded independence and real initiative by units on the periphery, particularly in the North-East, which had long been considered a potential danger from a national security perspective".

The two first military presidents, Castelo Branco (1964-67) and Costa e Silva (1967-69), had done little new for the North-East. Delfim Neto and his team saw their mission as reviving the national economy, which meant primarily the developed South-East. They saw no point in allocating large sums to an area where the return on investment was bound to be low.

When Garrastazú Médici assumed the presidency in 1969, the North-East presented an economic problem whose solution was far beyond the resources committed by any previous Brazilian government. No major region of Brazil could compare to the scale of misery in which most of 30 million North-Easters lived. In June, 1970, when a devastating drought struck the North-East, Médici flew to Recife and saw for himself the extent of the problem. His apparent shock at the situation of the drought-affected area was translated into an emotional speech in the SUDENE auditorium in Recife (in which he affirmed his commitment to the North-East), and in increased federal funds for emergency relief (Hall, 1978). Nine days after Médici's speech, the National Integration Programme (PIN) and the Programme for the

Redistribution of Land and Stimulation of Agro-Industry (PROTERRA) were launched. These first two great regional development programmes were incorporated into the first National Development Plan (I PND) for 1972/74.

What this meant was that, in the 1970s, State intervention in the North-East was closely dictated by national economic policy. Regional development planning was subordinated to the national planning system, and regional development agencies, as well as state governments, lost most of their previous power in the conduct of regional development. The problem of balance of political power was no longer that of rural interest groups dominating the higher levels of government, as in former times, but rather the opposite, that of the urban-industrial sector dictating rural policy.

The PIN officially announced the government's intention to colonise the Amazon region with emigrants from the drought-affected North-East. It brought together two interests of the Brazilian Government: the integration of the Amazon and the resolution of social and economic problems in the North-East¹⁸. The Transamazon Highway project, key to the PIN, tapped Brazil's aspiration to reach out into the huge unoccupied distances within its borders, and fitted ideally into the government's high-powered public relations campaign that extolled Brazil's prestige and its inexorable climb to world-power status. The President and his advisers could easily ignore the agronomists and geographers who knew the fragility of the Amazon's ecosystem and its limited agricultural potential. They could also ignore the reluctance of North-Eastern governors to accept the administration's justification of the plan. The governors of the North-East feared that the "draining of resources from the North-East to develop the North would be permanent" (Roett, 1972:151). The traditional source of opposition, Congress, was still in forced recess (decreed by Médici at the end of 1969) when the Amazon programme was approved, and the

¹⁸ Médici called PIN "the solution to two problems: men without land in the North-East and land without men in the North". According to Skidmore (1988:146), Médici and his policymakers found the Amazon an attractive solution for the North-East crisis because a direct attack on the regional problem would be prohibitively expensive both economically and politically.

reluctance of the governors of the North-East did little to deter the Médici administration from proceeding with the implementation of the programme.

The PROTERRA's purpose was to put substantial funds into acquiring land for small and medium-sized farms (in the North and North-East), financing the expansion of farming and helping to organise and modernise rural properties. Money was also to be used in financing the establishment of agrarian industries (including seed and fertilisers) and in improving research programmes, storage and distribution facilities. As Ames points out (1987:160),

"...though elite fears of a radical agrarian reform contributed to the 1964 coup, the concept of land reform remained attractive to the military government, at least symbolically, as a tool for rural modernisation".

However, PROTERRA's land acquisition was barely an improvement over mere credit. Its financial agents were the Bank of Brazil, Bank of North-East of Brazil and National Bank for Economic Development. The lending of the Bank of Brazil illustrates the powerful concentration of PROTERRA capital behind agro-industry. Between 1971 and 1978 more than 97% of the Bank loans went for land acquisition, but more than 62% of the loaned funds went to agro-industry. Land recipients had to pay for the land at market prices, former landowners were well compensated, and the parcels of land were too large (in Pernambuco these parcels had to average 60 hectares). Moreover, according to Ames, most important for the failure of PROTERRA was the absence of political will. As he states:

"President Medici may have believed in PROTERRA, but economic czars Delfim Neto, Reis Velloso and Simonsen did not. [...] Delfim Neto had told the World Bank, which supported agrarian reform in the Northeast, that he had nothing against land reform. Since the World Bank had the money, the World Bank could pay for redistribution. But acquiescence was not support. PROTERRA needed active backing, because the landowners, for whom redistribution embodied the spectre of radical change, were the mainstay of the State oligarchies." (Ames, 1987:163-164)

PROTERRA's only serious support came from the World Bank, but even the bank realised that significant agrarian reform was a dream because no consensual agrarian reform was possible and a confrontation policy was simply inconceivable. As Ames (1987:165) points out, "a regime backed for ten years by the upper strata was hardly likely to change horses in mid-flood".

By the middle 1970s the World Bank had begun pursuing Robert McNamara's "Basic Needs" strategy. With PROTERRA an acknowledged failure it was time for a new beginning. In late 1973, the federal government constituted a special inter-ministerial commission in Brasilia (with representatives of the Ministries of Planning, Interior, and Agriculture) to guide the planning and implementation of a major rural development programme for the North-East. From a series of events, which included exchanges between the government and various World Bank missions regarding their common interest in supporting small-farmer activities in the North-East, emerged the POLONORDESTE. At the SUDENE level, as the embryo of a technical secretariat for the future programme, only a small regional commission was formed.

The Ernesto Geisel Government (which replaced Médici in 1974) began with high hopes for the economy. Its Second National Development Plan: 1975-1979 (II PND), set a target growth rate of ten percent per year, to be achieved by shifting from consumer durables to intermediate industrial products and capital goods. The high growth was to improve income distribution and would require a continued high level of capital inflow, as well as an increase in domestic savings. The second National Development Plan (II PND) seemed to restore also the balance between the Amazon and North-East regions. Under this plan resources were divided between the POLONORDESTE and the Programme of Amazonian Agricultural, Ranching and Agro-mineral Growth Poles (Programa de Polos Agropecuários e Agrominerais da Amazônia - POLOAMAZONIA).

The POLONORDESTE is seen by Ames (1987:140) as one of the social and economic programmes adopted by General Geisel as part of his efforts to ensure long-range influence for the military. If successful, the rural development programmes, by turning poor peasants into middle-level capitalists, could be used to argue that the bureaucratic-authoritarian imposed economic model was accessible to all classes and an apt vehicle for social as well economic development. The military regime could use such an incorporation of the rural poor into its economic model to demonstrate its capacity to solve one of Brazil's most dramatic and highly publicised social problems.

The exploitation of the rural poor by both the rural propertied class and the commercial sector, especially in the drought-prone North-East, has been a major target of criticism of Brazilian society. It has formed an important part of the national literary tradition, has received considerable attention in both national and international press, and has been the focus of studies and projects of various international agencies, as well as of aid missions from different countries. Successful rural development programmes would therefore be especially effective in the military government's search for legitimacy, as they could be used both as a response to national and international criticism and as an affirmation of the regime's superiority over previous governments. The regime's need for legitimacy requires that these programmes succeed. Indeed, the publicity with which the federal government inaugurates such programmes makes their failure especially harmful to its attempt to legitimate itself.

Moreover, the POLONORDESTE, as a region-wide approach, spreading money widely in the North-East, could also be manipulated for organising a rural constituency. In the "democratising period", because the regime needed to mobilise political support through elections, it sought to manage its legitimacy through the pursuit of redistributive and populist policies. However, the national significance of local politics of the North-East does not mean that rural interest groups exercise much dominance over state and federal politicians. To understand political importance of the POLONORDESTE it is important to know how local politics operate.

National politics means little at local level. When asked about elections, household farmers would almost invariably talk of municipal elections. At local level, party politics also appears as irrelevant and its counterpart is personalisation. The quality of municipal administration is always related to the personal characteristics of those in charge. The farmers' demands vis-à-vis the municipal government refer basically to matters that might contribute to improving their everyday lives. It is expected that the mayor should provide water, electricity, roads, schools, sanitation, health posts or clinics. Moreover,

many expect to derive some advantage in the course of election campaigns for local office.

The head persons in the various organisations are replaced after elections, when the influential new 'prefeito' (mayor) appoints people to the supposedly vacant posts. Examples of such posts are all the Municipal Secretariats (Treasurer, Education, Planning, etc), Directors of schools or other municipal agencies. They can also dismiss people from or contract people for a countless number of jobs in schools, health posts, and bureaucracies. All the local notaries were either themselves influential or had relatives who were influential in the community.

Local politics, especially of the small municipios, also means little at national level. An election, when each vote may be decisive, is one of the rare occasions when a politician needs something from the local leaders and general population. At such times, state deputies, senators and national representatives visit rural areas shaking hands with people and promising their support to the local bosses. These visits are occasionally followed by the distribution of money and such favours as medical help, medicines and spectacles, to those who promise to vote for them. Patron-client patterns of behaviour become significant in the periodic mobilisation of peasant voters. At the village level, there is competition among brokers for peasant votes which can be delivered to a particular political patron. According to Powell (1970:416), such competition, (which has been described as "factionalism"), is an essential ingredient in the process of aggregating clients into the widespread network, and linking them to vertical patronage structures in the political system.

Important elements in this process are the unofficial district representative or "cabos eleitorais", who still remain and are effective in the political life of the community. Some of them are small farmers, residing in rural districts or small villages. They have a delegated role in allocating goods and distributing favours among villagers to get support for the candidates. The local "cabos eleitorais"

are those who directly distribute or supervise these goods. By doing so, they strengthen their position among the villagers" (Cavalcanti, 1982:143). A truly influential "cabo eleitoral" is one who can deliver his entire district's votes to the candidate of his choice. He may benefit personally from this position by obtaining favours for his own family such as a teacher's job for his daughter, improved roads for his trucks, or a drinking place for his cattle. The closest allies or nearby landholders will also be benefited and will tend to support him.

Municipios provide most government services at local level and the elected leaders can easily manipulate the disbursement of funds for roads, dams, and school construction to benefit his allies; often he can choose where improvements will be made. He and his friends find it easier to obtain credit in State banks, as well as services such as agricultural extension and health care. According to Gross (1979:129-130), patronage power is used to further the interests and fortunes of the dominant town faction. The power of patronage permits the leader to extend or withdraw practically any service to a citizen of the county. While villages are generally dominated by a single strong man, the towns (the municipal "sede") are invariably divided into factions¹⁹. "Election time is the prime season for factional conflicts; disputes may become acrimonious, with outbursts of insults, denunciations, vandalism, intimidation or even violence" (Gross, 1979:131).

Gross (1979:141-142) suggests that, since factions are not ideologically oriented and tend to crosscut socio-economic strata, they reduce the possibility of class-based struggle by dissipating energy in petty strife serving private interests. Factionalism is a political process allowing for a certain amount of interference by the central government in local affairs, while at the same time channelling resources into their communities. The municipio provides the major point of articulation between the national society and rural dwellers. Factions, with all

¹⁹ Gross, following Nicholas (1965), defines factions as "non-corporate political groups, based on conflict, recruited by leaders on diverse principles, but united by **individual self-interest**" (our emphasis).

their violence and inefficiency, are an integral part of the system of social control in rural Brazil.

Participation in factional disputes is most intense at higher social levels, but the division touches nearly everyone regardless of his status or where he lives. Lower peasants tend to be identified with their employers, creditors, or other patronal figures, but their factional participation is generally limited to attending rallies during campaigns and to voting. Peasants may perform their duty to their patrons but do not hesitate to fraternise with supporters of rival factions. While not forced to participate constantly in factional disputes, peasants are seriously affected by the struggle. A village dominated by a "cabo eleitoral" of the opposition faction will not have its road upgraded, its teachers may go for months without pay, and promised public works will not materialise. To organise co-operatives or other forms of mutual assistance is difficult because factional interests always threaten to sabotage them (Gross, 1979:131). It is within this context of "patronage" and "factionalism" that the cautious participation of peasant in politics may be better understood.

4. Conclusion

In this chapter I have tried to set the political and economic scene, at national and regional level, in which the POLONORDESTE and its integrated rural development projects took place. The aim was to give an appreciation of the institutional constraints on political action and the importance of existing institutional patterns in shaping political behaviour

Firstly, I have tried to show the changes occurred in the Brazilian political regime between 1964 and 1985. The military came to power in 1964 with the declared intention of the restoration of internal order and the international prestige of the country. In the period 1964-1974, what O'Donnell calls a "bureaucratic-authoritarian" regime was established, in which the military came to occupy the

State apparatus and the bureaucracy was the most dynamic element of the centralised State. This fits in the pattern of civil-military relations identified by Grindle (1987:262) as "the military as ruler", where the military, as a unified corporate institution, takes over political power with the intention of establishing a military regime and governing society for an extended period of time. Civilian politicians and political parties of all shades are rejected as corrupt, inefficient, and antinationalist.

From 1974 to 1985, there was what Stepan (1988:4-5) calls the "democratising period", in which the regime embarked on a gradual political "opening" (abertura). During this period, new movements within civil society (such as the church, trade unions, entrepreneurs, the press, the Association of Brazilian Lawyers, women's groups, and neighbourhood associations) presented challenges to the authoritarian State. Three factors led to the survival crises of the Brazilian military regime: the oil price increase of 1973, the regime's electoral defeat in 1974, and the popular struggle for democracy.

Agricultural policy and federal policy for the North-East region after 1964 responded to two factors. One was poverty and the cyclical problem of drought. The other - more a national than a regional problem - was the need to create an environment conducive to the expansion of capitalism in the countryside. If the two first military presidents (from 1964 to 1969) had done little new for the North-East, in the post-1970 period State intervention was closely associated with the guidelines of national economic policy. The planning system which followed contemplated the enforcement of regional development programmes which, in some cases, was to cover more than one geographic macro-region. This was the case of the first two great regional development programmes - PIN and PROTERRA - which included the North and North-East regions, and were incorporated into the first National Development Plan (I PND) for the period 1972/74.

Amongst the many efforts made by the military to deal with the twin problems of rural poverty and lack of agricultural modernisation, there also emerged the POLONORDESTE, established in 1974, within the policy guidelines of the II PND. It emerged also as a result of exchanges between the government and World Bank missions regarding their common interest in supporting small-farmer activities in the North-East. Under this plan resources were divided between the POLONORDESTE and POLOAMAZONIA, and it seemed to restore the balance between Amazon and North-East regions and to calm down the North-Eastern governments' fears that draining of resources from the North-East to develop the North would be permanent.

The POLONORDESTE is seen as one of the social and economic programmes adopted by Geisel and his successor, Figueiredo, as part of their efforts to ensure long-range influence for the military. If successful, POLONORDESTE would be used by the military government as an affirmation of its capacity to solve one of Brazil's most dramatic and highly publicised social problems. Moreover, as a region-wide approach, putting money everywhere in the North-East, where survival of local politicians depends on securing government largesse for their regions, the programme could easily be manipulated for political objectives. This strict control of voters and local leaders has been made possible because civil service jobs and transfers of funds for provision of infrastructure and social services have assumed a major role in the economy of the North-East interior. Because the restrictions on municipal autonomy and budgets, the mayors depends on the generosity of the state governor and national politicians. The regime always drew its strongest support from the conservative, predominantly agricultural states of the North-East. In fact, as we have seen, the close relationship between the military regime and North-Eastern elites, proved to be of great significance for maintaining the appearance of a government majority at the state and federal level, as was evident in the 1978 and 1982 elections.

CHAPTER IV - THE NORTHERN AGRESTE PROJECT: THE POLITICS OF POLICYMAKING AND IMPLEMENTATION

1. Introduction

The policymaking process is one of the most important aspects of a political system: not only do the most powerful political actors preside over it, but the central structures of the State channel it, and the demands of political participants are targeted at it. To explain the outcome of the policy process is to explain the most important characteristics about the nature of the State.

Hinnebuch (1989: VIII) points out that equally important in understanding a regime is the policy implementation process. As he says, "precisely because Third World countries suffer from an inordinate gap between policy and outcomes, how a regime works cannot be understood without a study of policy-implementation-in-action". In this chapter I also shared the conviction held by Grindle and contributors to the book "Politics and Policy Implementation in the Third World" (1980), that the implementation process is especially central to politics and is thus worthy of investigation.

The frequent disparity between goals and outcomes in the implementation of public policy in the Third World leads to considerations which have tended to focus more on the insufficient planning or inadequacy of the programme itself¹, on the administrative apparatus and procedures of implementing bureaucracies or on the characteristics of bureaucratic officials. Such factors can account for the "often imperfect correspondence between policies adopted and services actually delivered" (Van Meter and Van Horn, 1975:446). However, less attention has been given to linking characteristics of policies and programmes to their subsequent implementation, to relating implementation problems to

¹In fact, technical issues in the design of programme package are important because they can lead to the failure of particular reform inactive. Sometimes, because initial programme package is so limited in extent and so small in magnitude, in comparison with the scope of the problems that it is expected to be solve, that it can be judged as to have little prospects to be successful.

characteristics of the political and institutional context in which they are pursued². However, once the political decision to implement policy is taken, issues surround implementation constitutes a major determinant of the fate of a particular policy initiative.

The purpose of this chapter is to discuss policymaking and policy-implementation in action, focusing on the bureaucratic complexities and the contradictions of the Northern Agreste Integrated Rural Development Project (IRDP-AS-PE)'s implementation with its social and economic aims. Here I used Grindle's (1980:7) concept of implementation, which is considered to be

"a general process of administrative action that can be investigated at the specific programme level. Its success or failure can be evaluated in terms of the capacity actually to deliver programmes as designed. [...] The general process of implementation thus can begin only when general goals and objectives have been specified, when action programmes have been designed, and when funds have been allocated for the pursuit of the goals. These are basic conditions for the execution of any explicit public policy."

This chapter will present, firstly, a discussion of the technical issues in the design of POLONORDESTE's policy: its conception, objectives, strategy and targets. Secondly, it will attempt to look at the political and institutional aspects of the policy-implementation process of the Northern Agreste Integrated Rural Development Project (IRDP-AS-PE) at state government level; specifically, it will look at the everyday management, the interaction amongst players - policy agencies and politicians - and the politics of patronage which help shape high policy. This chapter will also look at the structure of public institutions and the way in which structure may affect politicians' influence in the implementation process. It tries therefore to answer the question of how the political and institutional context of administrative action affected policy implementation. This leads to an analysis of the extent to which technocrats and public managers allocate resources and develop strategies for pursuing both public and personal goals in a way that expands their own power, highlighting the political motivations, in terms of rational choice, for patterns of public resource allocation.

² Some exceptions can be found in Grindle and Thomas (1991), Grindle (1980 and 1977).

2. The POLONORDESTE: Conception, Objectives, and Strategy

The Programme for Development of Integrated Areas of the Northeast was established by Decree-Law 74,947 of October 1974 to promote, in association with other programmes and within the policy guidelines of the II PND, the development and modernisation of farming activities and the provision of assistance to small producers in selected priority areas of the Northeast (See Table IV.1).

TABLE IV.1 - POLONORDESTE: AIMS, STRATEGIES, AREAS AND EXECUTORS

AIMS	STRATEGY	AREAS	EXECUTORS
To promote the development of agriculture and livestock activities in select areas of the North-East.	Through creation of agricultural and livestock poles (Art. 1). For each of the areas which constitute the programme, integrated development plans will be executed, which will specify the public investments and the actions to be followed (art. 5).	I-Humid valleys II-Humid highlands III-Dry farming IV-Coastal tablelands V-Pre-amazon region	Co-ordination: SEPLAN MINTER MINAGRI Execution: SUDENE BNB State Government Involved Ministries

Source: POLONORDESTE - Secretaria de Planejamento (SEPLAN, 1976).

As stated in the original Decree, the POLONORDESTE philosophy emphasised the transformation of traditional agriculture into market-based agriculture³. By the end of

³ Prior to officially launching POLONORDESTE, the government engaged a French-Brazilian consulting firm to undertake studies to detail the programme and to prepare the projects. However, in 1975, although the projects were still not ready for implementation, the federal co-ordination teams

1976, the main objective of POLONORDESTE was to improve the living conditions of the rural population. According to a POLONORDESTE document (1976) three major guidelines were proposed: (1) promotion of efficient agriculture, (2) income increase, and (3) expansion of employment. During the implementation period, in a redefinition of the general objectives, the assistance to small producers (with or without land ownership) was adopted as the first priority. In this way, the basic objective of the programme and its beneficiary or "target" population were seen as follows:

"The understanding of the social problems of the Northeast is basic to its conception, i.e., the conception of top priority to the promotion of small producers with or without land ownership. The basic objective of the programme was to propose solutions leading to the suppression or reduction of the limiting factors which hinder the activities of small peasant producers, and which are required if their income level is to increase and if they are to enter the market economy" (IPEA, 1978 cit. by Ferreira, 1984:186).

According to a World Bank document (1989:2) a key consideration in the design of projects to assist the poor, is the recognition that almost the only asset of the poor is their labour. Thus, strategies to raise their incomes need to rest largely on ways of increasing the productivity of their labour. Given this perspective, and the objective of helping the rural poor, the POLONORDESTE projects included a comprehensive set of components:

- i) Credit, to give recipients some assets beyond their labour;
- ii) Research, to improve technological, and hence labour and land productivity;
- iii) Extension, to improve technology and ensure that credit was spent productively;
- iv) Land reform and titling to give beneficiaries the security to allow them to invest;
- v) Roads to reduce marketing costs and improve the working of the labour market;
- vi) Support to small non-farm enterprises, to improve the opportunities for off-farm employment;
- vii) Health, both to improve labour productivity, and through the use of rural health posts to practice preventive medicine for a wide range of health problems which were costly to treat in their advanced form, and thus previously went untreated;
- viii) Education to improve labour productivity; and
- ix) Marketing support to increase competition in the market, and increase the price-elasticity of demand." (World Bank, 1989:2-3)

Funding was to flow from a number of sources including PIN, PROTERRA, budget allocations and foreign borrowing. These funds, in many instances, simply

began allocating funds for the partial implementation of four IRDPs and provided support for four colonisation and several irrigation projects. The result was the programme started out with a diversity of approaches with respect to target groups and the solution of technical problems.

represented a reallocation of funds from other areas and, therefore, were not additional resources for all the sub-regions concerned. The breakdown of resources by type of project for 1975 to 1979 was as follows: 40.4 per cent for integrated projects; 11.3 per cent for settlement projects⁴; 39 per cent for irrigation project, and 9.3 per cent for other actions. The importance of irrigation projects (which were discontinued in 1979) in draining resources from POLONORDESTE shows the initial duplication of government actions (Ferreira, 1984:190). By 1981, the number of projects had increased to 43 IRDPs and 4 settlement projects⁵, which covered 777 municípios and about 12,936 thousand people. The IRDPs vary considerable in area, population, volume of funding and geographical situation. However, they were usually carried out in densely populated areas, where communities or villages already existed, which made it possible to reach a greater number of people.

Although various types of priority areas were considered for action, the programme was confined mostly to the humid valleys, which comprised about 50 per cent of the projects implemented and covered half of the targeted population (see map 3). In most of these areas, official action was already taking place through DNOCS and CODEVASF irrigation schemes. In terms of economic potential, the valleys and humid uplands were, in fact, the areas most suited to fulfilling the original goals of modernisation and transformation of traditional agriculture into market agriculture. In these areas, according to Ferreira (1984:189), capitalist penetration had also taken place more intensively. The dry

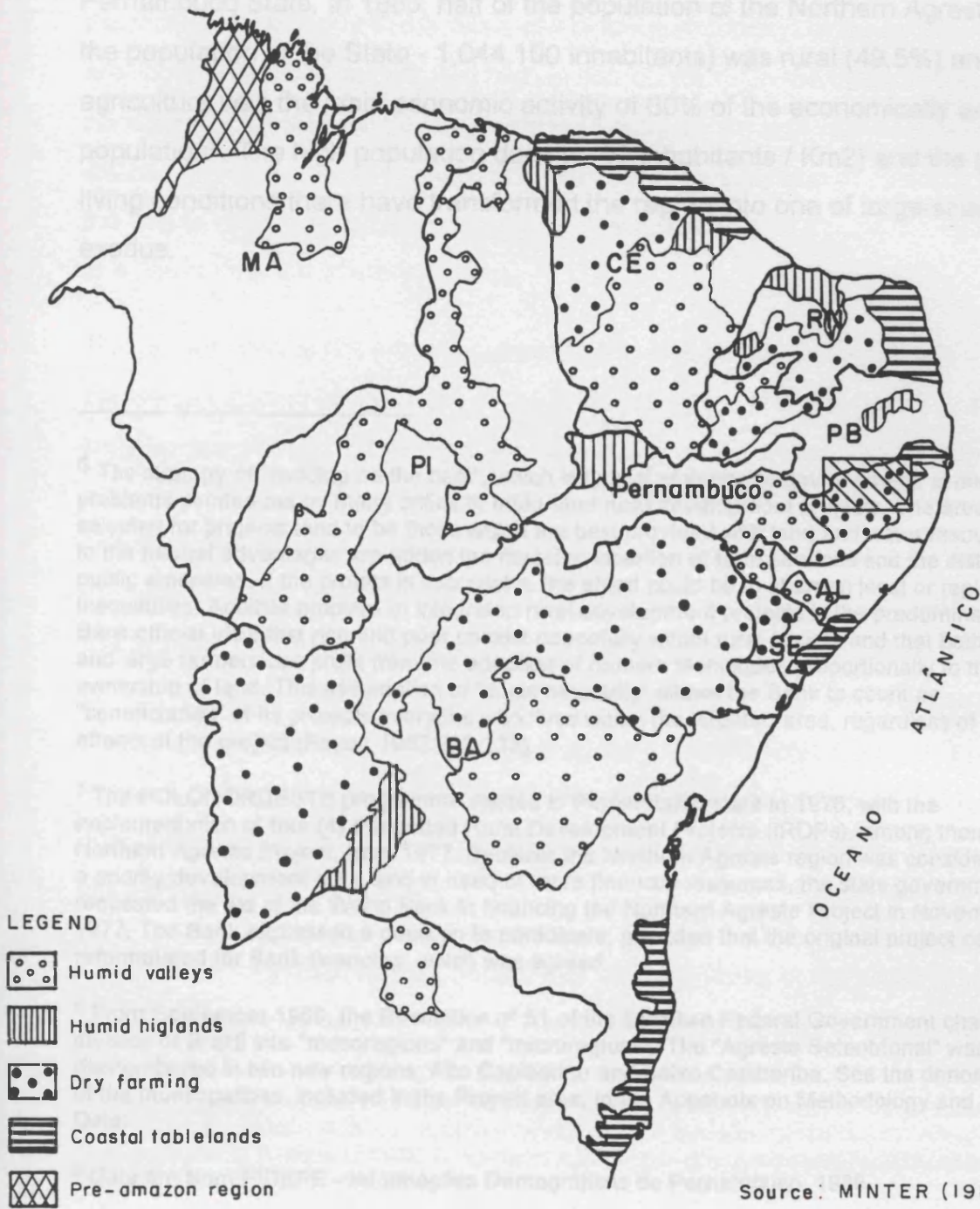
⁴ The POLONORDESTE's strategy was based, in fact, on two dimensions: (1) Rural settlement projects and (2) projects of integrated rural development (IRDPs). The preference for the latter is explained by Chalout (1980) in terms of economic cost. The IRDP is relatively cheap and "like settlement projects, it also responds to some of the fundamental needs of the peasants, such as access to the land, credit, marketing and organisational capacity".

⁵ Their allocation by state was as the following: Ceará had eight IRDPs, Piauí and Pernambuco six each, Paraíba and Bahia five each, Alagoas four, Rio Grande do Norte and Sergipe three each, and Minas Gerais one. Rio Grande do Norte had two Colonisation projects and Bahia and Maranhão each had one.

MAP 3

PROGRAMME FOR THE DEVELOPMENT OF INTEGRATED AREAS OF THE NORTHEAST - POLONORDESTE

Physical Location



Source: MINTER (1982)

farming areas, which hold over 30 per cent of the population received little attention⁶.

The Northern Agreste Integrated Rural Development Project (IRDP-AS-PE)⁷ included 36 *municípios*⁸ of two micro-regions of the "Agreste Pernambucano": 19 municipalities of the Agreste Setentrional and 17 municipalities of the Vale do Ipojuca. The project covered an area of 11,558 Km, 11.7% of the area of Pernambuco State. In 1985, half of the population of the Northern Agreste (16% of the population of the State - 1,044,100 inhabitants) was rural (49,5%) and agriculture was the main economic activity of 60% of the economically active population⁹. The high population density (90 inhabitants / Km²) and the precarious living conditions there have transformed the region into one of large-scale rural exodus.

⁶ The strategy of "building on the best", which is typical of capitalist development, is one of the problems pointed out by many critics of integrated rural development projects. The areas selected for projects tend to be those which are best provided with land and water resources, and to the natural advantages are added the massive insertion of farm services and the distribution of public amenities. If the project is successful, the effect could be to sharpen local or regional inequalities. Another problem of integrated rural development projects is the predominant World Bank official view that rich and poor coexist peacefully within rural society and that both small and large farmers can profit from the adoption of modern techniques proportionally to their ownership of land. This assumption of "scale neutrality" allows the Bank to count as "beneficiaries" of its projects everyone who lives within the targeted area, regardless of the actual effects of the project (Payer, 1982:232-233).

⁷ The POLONORDESTE programme started in Pernambuco state in 1976, with the implementation of four (4) Integrated Rural Development Projects (IRDPs), among them the Northern Agreste Project, from 1977. Because the Northern Agreste region was considered to be a priority development area, and in need of more financial resources, the state government requested the aid of the World Bank in financing the Northern Agreste Project in November 1977. The Bank expressed a decision to participate, provided that the original project could be reformulated for Bank financing, which was agreed.

⁸ From September 1989, the Resolution nº 51 of the Brazilian Federal Government changed the division of Brazil into "mesoregions" and "microregions". The "Agreste Setentrional" was dismembered in two new regions: Alto Capibaribe and Baixo Capibaribe. See the denomination of the municipalities, included in the Project area, in the Appendix on Methodology and Source of Data.

⁹ Data are from FIDEPE - Informações Demográficas de Pernambuco, 1986.

The first reality one is confronted with in studying agrarian problems of the Agreste is the importance of the small farmer¹⁰, unlike in the Zona da Mata and Sertão. The Northern Agreste project area was identified as having potential for some small-scale irrigated vegetable and fruit production. Location and rainfall gave it (like other integrated rural development projects) better prospects for expanded agricultural production than the large areas of drier land in the North-East. The topography ranges from the hilly more humid areas in the East, through the flat central plains, to the more mountainous West. Soils are of medium fertility. Groundwater resources are limited, costly to exploit and high in salt content. On the basis of these physical constraints, agricultural development is very localised and varies within short distances. Humid areas are characterised by the production of commercial crops, the use of more intensive technology and wage labour. In the semi-arid zones, there is a predominance of cattle raising.

The project area is not entirely subject to the droughts that periodically devastate the Sertão, except in the years of the great droughts, when even the Zona da Mata suffered the effects. In the Agreste, away from the wet areas, the rainfall averages are relatively low, almost always less than 1,000 millimetres per year and concentrated into a few months, March to June, causing serious problems to local production. Although lack of water does not reach the accentuated proportions of the Sertão, it is one of the most serious problems that the population of Agreste has confronted since the colonial period. A particularly prolonged and acute drought happened to coincide with a large part of the intended project periods (1979-83). In terms of production results, the crops hit hardest by droughts were cotton and subsistence food crops on which smallholders and sharecroppers in the project area were most dependent.

The Northern Agreste region, because of its importance in the production of food staples for the metropolitan area of Recife and the provision of seasonal workers for

¹⁰ Following Thiesenhusen and Melmed-Sanjak (1990), Lehmann (1982) and IRDP-AS-PE official conceptualisation I shall call Brazilian farms up to 50 hectares "small farms". According data from Agricultural Census of 1985, in Northern Agreste this group accounts for 97% of the properties and 44.7% of the farmlands.

the sugar-cane plantations in the Zona da Mata, was considered to be a priority development area by the state government. Even though the restrictions imposed mainly by natural resources, the agrarian structure and markets, the interventions to be achieved by the programme, aiming to increase production, productivity and the incomes and living standards of small farmers and of small non-farm enterprisers, could make possible, according to official expectations, the gradual occurrence of changes and beneficial impacts on the level of the economic activity of the region.

In the Northern Agreste Project, the intention was to diversify small farmer activities away from the traditional cultivation of subsistence crops to more remunerative vegetable and fruit crops; previous levels of subsistence food production were expected to be maintained, and the area under improved pastures and fruit and vegetable crops were to be expanded. In sum, according to Final Report (PROPRURAL, 1988:14-15) the main objectives of the IRDP-AS-PE were defined as follows:

- "- To increase production and productivity of the agricultural activities of low income producer target population;
- to improve the level of per capita income and rural employment opportunities, contributing to the reduction of rural migration;
- to improve the standard of living of the rural population through the social and economic infrastructure;
- Improving the effectiveness of institutions participating in the project."

Though the North-East region had diverse farming environments and agricultural potential, the integrated rural development projects were very similar in their aim of increasing the incomes and living standards of small farmers and of small non-farm enterprises through the provision of infrastructure (roads, marketing and storage), services (education, health and support to co-operative enterprises) and a package of agricultural support including credit, extension, research, improved seed and more secure land tenure. The IRDP-AS-PE specific interventions included Water conservation and a Community Development Fund.

There were a large number of agencies involved in the programme. At the federal level, the Ministry of the Interior (MINTER) held formal responsibility for programme

policy-making and for co-ordinating the activities of the various sectoral agencies involved in POLONORDESTE projects. MINTER performed routine administrative tasks: channelling the resources to the states, monitoring their use, and consolidating reports from SUDENE. The federal Secretariat of Planning (SEPLAN) focused mainly on general policy issues, funding decisions including determination of available programme resources, and overall evaluation of special programmes. The Ministry of Agriculture (MINAGRI) also participated in decisions regarding POLONORDESTE.

At the regional level, the SUDENE had responsibility for co-ordinating POLONORDESTE. Regional co-ordinating functions included setting (together with Ministry technicians) overall and sectoral guidelines for the programme, assisting the states in project preparation and annual planning, monitoring project execution, and maintaining liaison with the federal entities involved. The projects were implemented by existing federal and state line agencies, commercial banks, agricultural co-operatives, and municipalities.

At state level, planning was the responsibility of two state government secretariats: Planning (Planejamento) and Agriculture (Agricultura). The Secretariat of Planning was responsible, through the Technical Unit (TU) and CONDEPE, for the co-ordination of the activities of formulation related to social and economic infrastructure, administrative organisation, investment plan and social and economic evaluation. The Secretariat of Agriculture was responsible, through the CEPA (Comissão Estadual de Planejamento Agrícola), for co-ordinating the activities of surveying the project area, agricultural development, infra-structure of food provisioning, and credit and agricultural policies. During the planning phase, each agency to be involved in execution¹¹ supplied technicians and other resources indispensable to the elaboration of sectoral projects. During design and analysis of projects, technicians and consultants from World Bank and SUDENE also participated.

¹¹ There was 16 executing agencies and 24 collaborating agencies involved in execution of the IRDP-AS-PE.

During the planning phase of sectoral projects not one conflict of opinion occurred among the technicians and consultants. A technician participant (from the Technical Unit) describes this phase as follows:

"The agreement with the World Bank was for the alteration of a project that already existed. The alteration had a very strong technical orientation. This was because, the political decision for the implementation of the project having already been taken, there was likely to be little political interference. There was no struggle among the state agencies. The guidelines were defined in the II PND. [...] Each State Secretariat defined their needs. These were analysed by the Technical Unit, the Bank and SUDENE. [...] Each project brings their plurianual proposal and their aims (for the five years).

World Bank approval occurred in April 1979, and the loan was granted in June of the same year, to conclude in December 1984, later postponed to December 1986. The Board welcomed the Pernambuco project as well-designed and directed towards meeting basic needs in a poor area that needed assistance (World Bank, 1989:34). In fact, the project itself was not questioned. At this stage of the policy-making decision-makers at regional level considered the advice they received from national and international corps of technical advisers. However, it is clear that the principal concern influencing decisions, at state level, was access to aid from World Bank and to federal funds. It was only during the implementation of the project that State elites at federal level encountered serious impediments to the pursuit of their plans.

POLONORDESTE is generally considered to have been more concerned with the promotion of small producers than previous efforts (World Bank, 1983; Tendler, 1988; Ferreira, 1984). However, no one believes that the programme could have been expected to solve the problems of rural poverty in the region. There were about three million poor families in the North-East, and the principal programme benefits have probably gone to a small number of these. Although Ferreira (1984) has indicated that 140,000 producers have benefited from the action of POLONORDESTE, the available data do not permit him to identify economic categories of beneficiary¹². Precise quantitative information of POLONORDESTE's

¹² There is no agreement on the number who benefited by the programme. According to Tendler (1988) project beneficiaries (farmers receiving direct benefits) were estimated to be 209,440 people.

impact on farmers income is not available due to the non existence of a common evaluation system for the programme. Also, too much analysis relies on secondary information and development agency publications rather than on systematic research with farmers over the project area¹³.

Unlike the irrigation and settlement projects, the multi-component and multi-sectorial approach integrated rural development made it difficult to ensure uniformity in its implementation and results. Like other integrated rural development programmes, the POLONORDESTE had multiple, vague, often unrealistic and at times contradictory objectives. Its overload in terms of ambitions resulted in a failure to identify a clear aim for the programme, and it often demanded the impossible from the project management.

There was also the discrepancy between the formal objectives of the State and the real development that takes place. This gap between policy making and policy implementation can be revealed at project level, and this perspective may correct possible misconceptions of the "federal" view. What was said at the federal level was one thing, but what was done at local level was another. In explaining the gap between formal objectives and real development (in the case of federal policy for the frontier), Foweraker (1981) refers to the tendency within the authoritarian State to treat political problems as if they were simply administrative, and to the vulnerability of the State administration to the political pressures of economic groups, operating inside and outside the local State departments. But this is material for the next section.

According to Chalout (1980: 357), by 1977, the 35 POLONORDESTE projects (31 IRDPs and 4 settlement projects) directly affected 810,000 in the North-East, and it was hoped that by the end of 1979, to increase the number of those involved to 2.1 million. According to World Bank estimates (1983:61) this number did not exceed 100,000 by 1980.

¹³ See for example Bursztyn (1984). There are also technical analyses on programme implementation during its execution phase (Sampaio at al, 1987; Sampaio at al, 1978).

3. The Northern Agreste Integrated Rural Development Project: Planning in Practice

In contrast to policy formulation, the policy implementation process tends to be more flexible, open, political and competitive. According to Hughes and Mijeski (1984), there are two general areas where policy implementation is most susceptible to political pressure and competition and which pose considerable problems for achieving policy goals:

"The first area concerns institutional constraints on policy implementation and the willingness or ability of various ministries, agencies or departments to carry out presidential initiatives. Centralised policymaking often results in public programmes that are established without a clear concern for their administrative feasibility. Programmes may envisage goals that bureaucratic organisations are incapable or unwilling to pursue, perhaps because of poorly trained administrators, lack of knowledge about how to achieve the goals, or refusal to alter familiar behaviour or comfortable organisational structures. In addition, when bureaucratic agencies have not been deeply involved in formulating policy, they may simply resist having changes imposed on them. In other cases, of course, individual agencies, ministries, or departments become enthusiastic policy supporters, especially if they can anticipate an expansion of their budgets, personnel, power, or programmes from jumping on the policy bandwagon." (Hughes and Mijeski, 1984:158)

Both institutional and political constraints on policy implementation were important in the case of the Northern Agreste project. The most persistent technical criticism of POLONORDESTE is, possibly, related to organisational matters as would be expected from these multisectoral and multiagency approaches. It was the first major North-Eastern programme to use this integrated approach and a large number of agencies at all levels of government were assigned responsibilities and were expected to co-ordinate their activities with a variety of related organisations. To establish integrated, target-oriented planning and action by participating government agencies was particularly complicated due to the number of components involved. Many of the executing agencies were working for the first time in co-ordinating their activities with other agencies

Co-ordination of each project and the establishment of policy guidelines was undertaken by a Management Council (Conselho Diretor) composed of the State Secretariats responsible for the implementing agencies. The State Secretary of Planning was appointed head of the Council for the Northern Agreste project. Technical Units were set up to carry out day to day co-ordinating of project activities,

finalise annual operating plans with the operating agencies, provide technical support, and serve as the link between the executing agencies, the Management Council and the financing agencies. In Pernambuco, the Government had established a Technical Unit (TU) within the Secretariat of Planning which oversaw the four POLONORDESTE projects in the state. With the increasing workload, separate Management Units (gerencias) were set up in 1978 for each project, including the Northern Agreste project. The TU was also responsible for monitoring the project.

The costs of equipping, staffing and providing the necessary materials for the Technical Units during the implementation periods were included in the project investment costs. The Technical Unit, like in other IRDPs, was located in the state capital (Recife) and the project set up a regional office in Caruaru to promote interaction among the executing agencies at local level and to improve contacts with local communities and project beneficiaries. The Technical Unit had a large number of staff and was thus costly to maintain. Project administration costs (including monitoring and studies) incurred by the Technical Unit amounted to 9.6% of the total costs of the project¹⁴. Not included in these figures are the costs of project administration incurred by each of the executing agencies.

The Federal University of Pernambuco (UFPE), through an Evaluation Unit, comprising a research team from the PIMES (Programa Integrado de Mestrado em Economia e Sociologia), was given a contract covering evaluation. Data collection for a baseline and final survey was financed, as were several evaluation studies. Inexplicably, no contract was entered into to cover the processing and analysis of the final survey and the data collected has not been properly analysed and evaluated¹⁵. In fact, the Evaluation Unit did not have a relevant role in influencing the implementation of the project. According to a former co-ordinator of the Evaluation Unit, because PIMES was considered an outside body there was a

¹⁴ See Table IV.3 - "Total project costs by component".

¹⁵ Part of this data is analysed and discussed in chapters V and VI of this thesis.

general resistance of the agencies (involved in the implementation) to the conclusions of PIMES. Another problem was the structural difficulty experienced by the Technical Unit in managing the resources to carry out implementation of measures suggested by PIMES. Since the project executing state and federal line agencies reported directly to state political leaders, the TU was obliged to co-ordinate the activities of agencies over which it had little control. Also, it did not have direct control over project resources.

The structural difficulty experienced by the Technical Unit in co-ordinating the activities of independent executing agencies is related to the fact that it did not have direct control over project resources. Organisational tensions were unavoidable given the large number of agencies involved. The relationship among participating organisations was termed "coexistence" rather than co-ordination. During implementation each agency continued to define its own priorities and determine the activities of its field agents and reported directly to state political leaders. Moreover, many of the executing agencies were not traditionally oriented towards the needs of small farms and rural poor (PIMES, 1984c).

As we see in the discussion of the project's services and inputs, a large number of agencies of government were assigned responsibilities and were expected to co-ordinate their activities with a variety of related organisations. Many of the executing agencies were working for the first time in co-ordinating their activities with other agencies. Problems of bureaucratic competition, personal animosities and ambitions, differing philosophies and clientele groups, as well as issues of compliance, scheduling and funding were extensive. Most pervasive was the problem of trying to ensure control over personnel and resource allocation while allowing for flexibility to meet local conditions. Its complex administrative structure and complicated mechanisms for the allocation and transfer of funds appear unwieldy. Disbursement of funds from Brasilia and the World Bank was slow and erratic, causing uncertainty and frustration for project implementors.

Problems at the project level were endemic. From the most general perspective, the plan developed by the State elite in relative isolation from national bureaucratic headquarters became subjected to administrative shortcomings and political patronage. Moreover, programme resources were often allocated according to political criteria, with little concern for maintaining the integrity of integrated solutions to local economic constraints. The administrative complexity of the projects mushroomed as the implications of the term "integrated" became apparent. These issues loomed large as the programmes moved from the formulation of neat "packages" to the implementation of real projects.

In practice, however, the bureaucratic and political infighting that hampered implementation of POLONORDESTE was a sign of the absence of support in Brasilia. It was originally expected that SUDENE would be a monitoring and co-ordinating agency between the states and the government in Brasilia. The latter, however, would not yield its financial control to SUDENE. Rather than transferring a block of money to SUDENE for the whole of POLONORDESTE the government in Brasilia parcelled out the money state by state. The World Bank followed suit, refusing to give SUDENE control of its block grant. As the states developed more expertise, they began to bypass SUDENE and deal directly with the central government. Unable to provide logistical support to the states and unwilling to relinquish control over their activities, SUDENE became a bottleneck in the programme. In the early 1980s, a debate took place over the relative emphasis on social versus infrastructural components in individual POLONORDESTE projects. According to World Bank informants, this debate was carried on mainly inside the bank and among the state agricultural experts rather than at the level of the central administration (Ames, 1987:165-166).

The Annual Operating Programme (POAs) was the instrument for preparing the budget of the project for each year. The project guided and controlled accomplishment of the objectives. However, it was possible to modify strategies, the quantity of physical-financial targets, locations, etc. Through the operational plans (POAs), POLONORDESTE replanned its activities annually. Because of this

instrument, the IRDP-AS-PE introduced a series of changes in its original projects, increasing its area of action, creating new segments, substituting executing organs. However these changes did not bring about any substantial change in the structure of the methodology of planning and execution of the programme¹⁶. Consequently, the difficulties remained in order to reach the target group of the investment in question.

Despite some rigidity in the form of dispensing funds, executing agencies always managed to overcome that rigidity and to become vulnerable to the political pressures of groups operating inside and outside State departments. Thus, according to a former co-ordinator of the Evaluation Unit, there were resources whose allocation to a specific sector was influenced less by social and economic considerations and more by the fact that it was "a sector that could have more influence on the election results".

Clientelism and patronage continued to be the principal realities of politics in North-East rural areas. As we have seen in chapter III, the small-town politics of the country were of great significance for maintaining the conservative regime in power. Local offices and politicians became involved in selecting sites for facilities, routes for roads, locations of other infrastructure, and recipients of jobs. Mayors played a very strong role in the execution of the project because this guaranteed to a certain extent power over the farmers. The farmers' demand vis-à-vis the municipal government refer basically to matters that might contribute to improve their everyday lives. They expected that the mayor should provide water, electricity, roads, schools, sanitation and health posts. Moreover, municipal leaders could manipulate the disbursement of funds to benefit their allies if they can choose where improvements will be made. A technician participant (from the Technical Unit) describes the role of the mayors during the implementation as follows:

¹⁶ According to an Evaluation Unit Report (PIMES, 1984b, PIMES, 1984c) in the methodology of planning and execution of the programme three major mistakes were made: (i) inadequacy in the manner of the participation of the target population, (ii) the overambitious aim of wanting to reach simultaneously all the programme area, and (iii) the individuality with which each segment constructs its POA.

"In the execution of the project the mayors "quarrel" not only to define locations. But many more schools were built than forecast and their came in the demand of the prefectures. The mayors were harmful in the sense of wanting to allocate construction work for their political areas. In many cases they succeeded... There were cases of empty schools and even construction in private properties. The same case occurred in the health centres."

It might seem that the North-East is controlled by rural interest groups whose leaders, in turn, have a strong voice in national affairs. However, the national significance of local politics of the North-East does not mean that rural interest groups exercise much dominance over state and federal politicians. During the military regime the flow of political power was strictly from the top downwards. In this centralised national political system, voters and leaders of the interior have been brought under the firm control of regional political bosses who have, in turn, been manipulated by the South-Eastern political leaders in control of the national government. This strict control of voters and local leaders has been made possible because civil service jobs and transfers of funds for provision of infrastructure and social services have assumed a major role in the economy of the North-East interior. Because the restrictions on municipal autonomy and budgets, the mayors depends on the generosity of the state governor and national politicians.

When the mayor was linked to the state governor or federal politicians, he could nominate people even for the agencies of state or federal government. However, the power of appointment to desirable state and federal jobs was not completely within the local leader's domain. He had go to the capital numerous times for personal meetings with high-level politicians in order to ensure that the proper connections were made with the right senior bureaucrat in the different government agencies. It is exactly through such contacts that, according to Hoefle (1985:23), "the state and federal politicians exert complete control over local leaders".

The governors also find project resources useful to the extent that services might be provided among competing areas or applicants on a discriminatory basis so that they might be used to bargain for political support. For this reason the participation of local politicians in the distribution of project resources was important. Through the allocation of project resources to benefit the rural allies of government the state

governors were building blocks which could be used to build up national power. This can be illustrated by the account of one technician from the Technical Unit:

"There was a real war between the political and technical question when the case was of carrying out activities in municipalities with opposing governments. [There was also...] facilities in cases where the mayors were of the same party of the governor... They had more strength. Sometimes the governor emitted messages with 'give priority' to solicitations stemming from the mayors, and the technicians remained in an immobile situation. In some cases it was difficult to deny because you could not use as an argument the absence of demand."

As the number of POLONORDESTE projects grew, along with the size of the project areas, the governors saw the programme as a way for them to obtain secure commitments from the central government to support part of their state budgets. From a North-Eastern point of view, the federal government had routinely reneged on its budgetary commitments, or did not allocate enough funds to the region. This is part of a long-standing view in the North-East that the region provides more revenues to the rest of the country than it gets back in resources from the federal government. POLONORDESTE became attractive to the North-Eastern governors because it carried with it the central government's contractual commitment to the World Bank to provide counterpart funding for the projects - roughly sixty-five percent of total programme funding. To the state government, this represented an unusually "guaranteed" commitment of federal funding. In sum, the governors came to see the POLONORDESTE as a means of helping them to cover their operating costs for the agricultural agencies. Though the governors gave political support to Bank-funded programmes, this support came to be given less for what the programme could do and more for their ability to cover certain ongoing costs of the state budget (Tendler, 1988:31-32). As an Assistant Secretary from the State Secretariat of Agriculture said:

"In the case of the IRDP of the Agreste, the resources of the World Bank substituted those of the State. Thus, the State was freer to play with resources that it had to give for research and with the technical assistance, etc. It remained freer to play that and give privileges to other groups. [...] There may have been a deviation in the resources, but I think that money was feeding state bureaucracy, and everyone gained. [...] The institutions, the technicians, all won out. Votes, as when they indicated that a certain work had to be built in such place, or when they manipulated the teacher who received the salary, or the agronomist that changed, in essence they won over that resource."

Another source of POLONORDESTE support to North-Eastern governors was the fact that government agricultural agencies in the North-East came to be among the largest public-sector employers during the programme period - second only to the state education and health departments. Within that set of services, extension had the largest share. Becoming such a large employer of professionals in the State public sector gave the extension service the power not only to "do whatever it wanted", as people complained, but to protect the jobs it had acquired. Many observers say that public-sector employment there weighs more significantly as a formal employment opportunity than in the more developed part of the country. Opportunities for formal employment outside the public sector are relatively less than elsewhere. The North-East accounts for 15% of total formal employment in Brazil, but 22% of public-sector employment in the country. In a certain sense, then, the politics of public-sector employment also pressured state governors to protect the extension service even if it was not delivering anything politically valuable to them. Similarly, whereas public-sector employment in the North-East accounted for 32% of North-eastern formal employment in 1984, public sector employment in the rest of the country accounted for only 20% of employment¹⁷.

Most observers describe the political-bureaucratic history of POLONORDESTE as an attempt to build a programme around a set of specific geographical areas with "growth-pole" characteristics. The concentration of projects in certain geographical areas proved to be politically difficult, because mayors lobbied to include more areas in the programme. The more the projects lost their original growth-pole focus, the more popular they became with politicians. The programmes "over-expanded" and this decision crippled the programme from an economic point of view: having so many farms meant that too few resources were provided for each, with the result that most operated inefficiently.

A principal reason for this, apparently, was a desire to put them in areas where they would provide "public works" benefits to the supporters of the government in power.

¹⁷ Data are from Maia Gomes (1985), cited by Tendler (1988:32-3).

Similarly to what Bates (1981) observed to project-based agricultural policies in the African case, "allocations were used in an attempt to solve essentially political problems, often at the cost of considerable economic efficiency". The gap between the economic aims of the project as it was defined and its implementation is explained by a former co-ordinator of the Evaluation Unit in the following terms:

"The aim [of the IRDP-PE] was more economic, at least that was what declared in the project. The implementation ended up by being more political, but not in the wider sense, more at the 'kitchen' level, of the interior, of locality, of region. It ended being more an object of local political implementation. [...] And that happened because [...] of paths outside the project, paths that were not expected. For example, that manipulation of the budgets with a small political objective of small politicians. It [...] means that a reasonable percentage of the funds did not arrive at the predicted destination. When the funds arrived they either took different paths [...] and were not spent on what was expected] or took more than the predicted time to reach the places they should have."

The problems of the states in getting the central government to release the committed counterpart funds helped to discredit the programme. In coping with delayed receipt of counterpart funds from the federal government, project managers reported that they did everything they could to "preserve staff" - namely, they gave priority to salaries and cut back on investment and other operating costs. This led to "the impression that POLONORDESTE contributed 'only' to building and maintaining the public-sector apparatus and did little for its intended beneficiaries" (Tendler, 1988:33). However, this could never constitute a long term improvement, as stated by a technician from the State Secretariat of Agriculture:

"The State benefited in the same manner the small farmer benefited. The money finished, the benefits ended. During the period of the project they received more resources, hired more people, and at the time that the project ended, that benefit ended. The State, as the leading provider of services did not gain benefits in the long-run."

According to Grindle (1980:221-223), among a variety of factors that determine whether programmes formulated at the national level will reach their intended beneficiaries is the performance of the field administrator-implementor. Whether he responds to the expectation that he execute programmes depends upon him as well as his own perceptions of how best to achieve his personal goals, whatever they may be. One method of achieving the implementation of programmes over the long run would be to seek to improve the capacity of the intended recipients for effective demand-making. Thus, the objective would be to strengthen low-status clients in

relation to the political and economic elites who generally have the capacity to subvert programme goals. For such a strategy, there obviously must exist a national administrative leadership, which is sincerely committed to achieving policy objectives. Perhaps most importantly, these administrators must be able to count upon the support of national political leaders when conflict arises at the local level. This is the ingredient most frequently missing, due to the overriding concern of coalitions of supporters to ensure the continuity of the political regime.

The planning and management of POLONORDESTE projects can be considered "top down", although some attempts to promote participation either through specific "community development" components or through components such as health and education have been tried. At the same time, most state technical units tried to consult local authorities and community representatives in preparing annual operating plans (POAS). While the general objective of engaging beneficiaries in planning, execution and supervision was "laudable", the World Bank document (1983:49) attests to the obvious, that the realisation of this goal would require a different strategy and methodology, as well as, "more flexibility in terms of approach than that already existing". Attempts to promote participation of the target population in preparing annual operating plans can be illustrated by the account of one technician from the Technical Unit:

"In 1981, we thought about planning ... (the annual operating plan) differently. We went to the rural communities, verified the demands and embarked on a plan that had the endorsement of the rural communities. However, the Technical Unit could only exercise this practice for one year... There were many complaints to the governor over the (new) manner of planning by the Technical Unit. I think that this (participation of the target population) was harmful politically because ... the mayors, deputies and councillors could not imply that the project was a result of their struggles and power. Then, the TU suffered pressure to return to the traditional planning system."

In fact, popular participation, in the post-64 period, was a stated objective of the First and Second National Development Plan (PND I and II) and in several regional plans. However, in the socio-economic context where popular participation was propagated, only the quantitative aspects of development was emphasised, with the aim of eliminating the cultural resistance to innovation. Peasants' participation was not an issue for those who planned and implemented the programme and projects

reached local level in the guise of State patronage or government largesse. National and regional planners knew little about the local circumstances of targeted areas and this was further aggravated by the lack of feedback from local areas to the top of the decision-making hierarchy.

As it will be shown in the next section, an assessment of the achievements by components showed an overemphasis on the accomplishment of the physical targets and the difficulty of the management agencies of the project in measuring the quality of the services delivered. Moreover, the monitoring data from the components of the project do not permit a definitive conclusion, as to whether the services provided by the project were important for increasing income, productivity or distributional equity. Because of this, there was a majority opinion inside and outside the agencies involved that POLONORDESTE contributed "only" to maintaining the State apparatus and to feeding the bureaucracy, and did little for its intended beneficiaries. As a former co-ordinator from the Evaluation Unit stated:

"The main beneficiary of the POLONORDESTE were the technicians, who earned money from the work they carried out, and the institutions that capitalised on it. The Directorate of State Land (COTEPE), for example, was founded with money from the POLONORDESTE. A 'white elephant'... but which had a band of cars, air conditioning machinery, and physical installations. All the capital of the institution was born under the POLONORDESTE and for a long time it lived on this capital. Then came the politicians, the suppliers. In the building of roads, for example, you have the purchase of tractors, heavy equipment; in the building of schools you have the cement, brick and tiles suppliers. Those... were the ones who in fact used the money of the World Bank for the POLONORDESTE".

If after the implementation of the Northern Agreste project there was doubt, in the opinion of the majority, about the project's capacity to accomplish its economic aims, there was no doubt about its political utility. If the project failed to generate an adequate return on the public investment made, it was privately rewarding for those who build it, staff it, or hold rents in it. Thus, the kind of explanation which is required to explain the outcomes of POLONORDESTE policy is one based in other factors than the social and economic objectives of the State. The approach that is needed is one that looks at this agricultural programme as part of the whole mechanisms employed by the government in its efforts to secure political control

over the rural population and thus to remain in power. The components included in the programme seem clearly to have helped the governors' efforts to organise political support in the countryside¹⁸.

3.1. Targets and Achievements by Component

Generally, POLONORDESTE projects were designed with three components: (1) direct inputs to improve production (usually the largest portion of programme funds); (2) infrastructure to encourage and support increased production; and (3) social infrastructure such as health and educational facilities and peasant organisations (usually given the smallest portion of programme funds). The approach largely avoided the issue of redistribution of land. The belief was that these goods and services could be supplied without altering the structure of landholding and would still have a significant impact on the standard of living in rural areas.

Under the original growth pole approach, basic sectoral instruments included public investments for feeder roads, rural electrification, storage facilities, agricultural research and experimentation, technical assistance and rural extension. A special credit line (for both production and investment costs) was established for use by producers involved in the programme, and complementary investments in social infrastructure for rural communities (health, education and water supply facilities) were included. In addition, support for co-operatives, small non-agricultural enterprises, land regularisation and redistribution, together with funds for advance crop purchase, were later introduced (World Bank, 1983:45).

The number of components and achievements varies across projects. For the programme in general, land activities, tenure regularisation, advance crop purchase funds, and support for small non-agricultural enterprises was included less

¹⁸ As Bates (1981:114) states, "Project-based policies, as opposed to pricing-based policies, are ... relatively attractive from the point of view of organising rural constituency in support of the government in power. Governments can choose where to locate such schemes. They can also choose with whom to staff them. Both decisions offer opportunities for organising political support. [...] Through the promise of benefits they can secure co-operation; through their conferral, they can reward compliance; and through their withdrawal, they can punish those who protest."

frequently than other components in IRDPs. According to the World Bank Interim Assessment (1983:55), the effectiveness of each component depended on the institutional influence and capacity of the co-ordinating and executing agencies. The traditionally stronger agencies (e.g. extension, road development authorities) tended to achieve their physical targets more quickly than agencies with weak administrative capacity or chronically inadequate recurrent cost funding (health services, village water supply). Land distribution and regularisation had suffered because "local institutional arrangements do not exist or are extremely cumbersome".

Between 1979 and 1987, the IRDP-AS-PE project's principal quantitative achievements included construction of 1,097 kilometres of rural roads; the construction of 115 rural schools; the construction of 13 health posts, and 86 community water supply systems. In terms of direct agricultural support 23,000 farmers were assisted with rural extension services and 13,788 producers were provided with credit (See Table IV.2).

Desegregation of distribution of resources by guideline is sufficiently clear to show the main emphasis of the policy. A substantial amount of resources (26.9%) was invested in actions, which directly benefited the rural producer (excluding rural credit). In this sector, the main achievements concern technical assistance and rural extension (16.1%), research (2.2%), co-operatives (2.3%), marketing (1.9%), and land regularisation (3.7%). The economic infrastructure segment, which includes feeder roads, reservoirs and dams, absorbed 19% of the investments. Social infrastructure (education and health) had 6.6% of total IRDP-AS-PE funding, while at the State level, general administration and co-ordination, including monitoring and evaluation activities, had 9.6% of total funds (See table IV.3).

The structural difficulty experienced by the Technical Unit in co-ordinate the activities of independent executing agencies is related to the fact that it did not have direct control over project resources. Organisational tensions were unavoidable

given the large number of agencies involved. The relationship among participating organisations was termed "coexistence" rather than co-ordination. During implementation each agency continued to define its own priorities and determine the activities of its field agents and reported directly to state political leaders. Moreover, many of the executing agencies were not traditionally oriented towards the needs of small farms and rural poor (PIMES, 1984c).

As we see in the discussion of the project's services and inputs, a large number of agencies of government were assigned responsibilities and were expected to co-ordinate their activities with a variety of related organisations. Many of the executing agencies were working for the first time in co-ordinating their activities with other agencies. Problems of bureaucratic competition, personal animosities and ambitions, differing philosophies and clientele groups, as well as issues of compliance, scheduling and funding were extensive. Most pervasive was the problem of trying to ensure control over personnel and resource allocation while allowing for flexibility to meet local conditions. Its complex administrative structure and complicated mechanisms for the allocation and transfer of funds appear unwieldy. Disbursement of funds from Brasilia and the World Bank was slow and erratic, causing uncertainty and frustration for project implementors.

i) Credit

Farm credit was a major component of the project (30.9% of the total funds). However actual disbursements for credit were low (32% of the loan amount allocated). Sub-loans for seasonal credit were relatively less important than for investments. Around 13,788 credit plans (double the target) were approved in the IRDP-AS-PE, where credit for on-farm investment was used largely for livestock. This was a deviation from the original aim of also financing the establishment of permanent crops and other permanent on-farm improvements such as storage installations and reservoirs.

Alterations in the credit policy determined by the Conselho Monetario Nacional made it difficult to fulfil the aims of the project. Throughout the project these changes

were reflected in sudden reductions in seasonal credit ("custeio") applications because it was decided that the loans contracted within the budget of the POLONORDESTE, should be destined only for investment. Such loans, which demand the property as collateral, impeded the awareness of a large proportion of the target landless population (it was estimated that about 32% of the small producers were landless) because of bank requirements for collateral and or letters of permission from the landlord required of tenant farmers. Working-capital credit (custeio) was less subject to these constraints. Working-capital credit was important not only because it reached a larger number of farmers than investment credit - and lower down in the income distribution - but because its availability seems to have had a large impact on farmers' decision about production (Tendler, 1988:61).

Apart from this, there were also the administrative problems related to the state-level co-ordination of the programme. The Bank of Brazil, Bank of the North-East (BNB) and State Development Bank of Pernambuco (BANDEPE) disbursed rural credit, through the local agencies. Within the three banks involved only BANDEPE acted according to the methodology stipulated by technical assistance rules.

Nevertheless, the BANDEPE had played only a minor role in POLONORDESTE's small-farmer credit programme, partly because of the typical lack of interest of the banking system in such programmes, and partly because of the World Bank's concern that the state development banks were politicised and not as reliable as the long-established Bank of Brazil and Bank of the North-East.

The Bank of Brazil, the main conduit of POLONORDESTE small-farmer credit, had a better reputation than the state banks - with its well-known system of merit-based hiring, and its greater invulnerability to local politics due to its centralised mode of operations, with its headquarters in Brasilia. But, according to Tendler (1988:56), it was the Bank of Brazil's very "invulnerability" to politics and centralised operation that caused some governors and state agency managers to consider the bank "unresponsive" to the state's concern for lending rapidly to small farmers, and the landless in particular. When the "political meddlers" are competent technocrats and reformist governors, for Tendler, vulnerability to political pressure can turn into a

desirable, rather than an undesirable quality. The strong preference of the state-level agency managers for the state bank, over which they had power, is one more sign of the institutionally difficult nature of targeted rural development programmes, which are predicated on re-orienting formal credit toward small farmers.

According to a PRORURAL Report (1987:19), the release of funds by the Central Bank, apparently, did not take into consideration the seasonality of the regional agriculture, troubling in a significant manner the work of EMATER and the programme due to the scarcity of credit in periods indicated by the agricultural calendar. The TU, apart from participating in the elaboration of the POAs, did not exert any control whatsoever over the distribution of funds destined for this component. Because of the autonomy that the groups of banks enjoyed in the use of project funds and in selection of beneficiaries, there are doubts whether their criteria were in fact compatible with the objectives of the programme. This could explain why monitoring and evaluation reports complained that the percentage of small producers contemplated by the credit programme remained inferior to the number of large and medium sized owners included as the beneficiaries of the POLONORDESTE¹⁹. According to a technician involved, this was because of institutional structures:

"Because of the actual institutional arrangements a good slice of the budgets did not reach the small producers. Then you cannot say who is the guilty one... It was the manner the banking system operates. For example, a certain quantity of funds flowed into the bank, so that they would be destined for the small producer. Who finally determined who would receive those budgets was the manager of the local bank... As it was the manager who chose, and his job, his career, and several aspects related to his personal life, depended on who he was going to lend and the guarantee he has that the budgets were going to return... he preferred to decide on the destination of the budgets for those who would have the ability to repay. From then onwards the landless producers and the small producers were practically excluded. And then, and that is not the managers fault, neither the bank's fault. The problem is the system's and that was not forecast by the programme".

In fact, most technocrats in the North-East see investment credit as being inaccessible to the smallest landowners and to the large numbers of tenant farmers because of the high risk for tenants in investing in land that is not their

¹⁹ See, for instance, an Evaluation report called "Crédito na área do IRDP-AS-PE: Distribuição, uso e reflexos nas Unidades Produtivas" (PIMES, 1984a).

own, small landowners' fears of losing mortgaged land, and the generally poor treatment of tenant and small landowner farmers by banks and the consequently high transaction costs to them of obtaining credit.

ii) Agricultural Research

If the Green Revolution successes made heroes of agricultural research and extension in Third World countries, this was not the case in rainfed areas, where much of the investment by governments and donors in agricultural development has not added up to impressive increases in output, yields or income. According to Tendler (1993:1567), "more often than not the finger of blame for these disappointing outcomes has been pointed at agricultural extension and research institutions." As she states,

"Monitoring and evaluation reports repeatedly point to research as 'too academic,' not concerned about small-farms crops and practices, not sufficiently engaged in field testing and adaptation of its findings, and not interested in collaborating with the extension service in the interests of dissemination".

Much of this, was the case of agricultural research undertaken by the State Agricultural Research Institute (IPA-PE) before and during the project years. However, because of heavy pressures from the governor and World bank to "do something for small farms", IPA developed several improvements which were readily taken up by the farmers: new varieties of beans, tomatoes, and carrots; cultivation of manioc with animal traction and improved spacing between plants; new crops associations; soil conservation; and the introduction of potato cultivation. Co-operation between extension and research was improved with the secondment of an EMATER extensionist to the Research Station in Caruaru in 1980. However, agricultural research has been substantially refocused to give adequate, but not exclusive, attention to the problem of small farmers.

iii) Extension

Agricultural extension was another major component of the project. Costs were projected at 10% of total baseline costs in the IRDP-AS-PE and actual

disbursements of the loans exceeded the loan amount, which had been originally allocated. The overrun is explained by the expansion of the project areas and the extension of the project periods.

The extension services were delivered through the Company of Technical Assistance and Rural Extension of the Pernambuco State (EMATER-PE), with its headquarters in Recife, which had 36 local offices. The technical team at the state level included 9 regional technicians and a field team composed of 40 rural extensionists and 10 social ones. That team was steadily increased to 109 local extensionists (rural and social), 19 technicians at regional level and 4 at central level; apart from the administrative-support staff. As we can see, the project was successful in significantly expanding the extension of services available to small farmers. Staffing, mobility and office space were all increased. It should be recognised, however, that this expansion took place from a small base and that, even after expansion, most small farmers had no direct contact with extensionists.

The target number of farmers benefiting from agricultural extension was exceeded under the project (23,000 or 148%). However, the work of extensionists was affected by a periodic shortage of on-farm credit, the drought and frequent staff turnover. Also, during the drought, many of the staff were involved in emergency relief operations and therefore the service had no active role in developing cropping patterns adapted to the drought. The extensionists also played an active part in assisting farmers' applications for credit and they frequently spent too much time in their offices because they were processing the paperwork for credit applications for their clients.

The provision of technical advice was largely "captured" by the credit programme, so that extensionists became accustomed to providing technical advice supported by credit at negative rates of interest. To the point that extensionists were told on several occasions: "We need a subsidised credit programme so that farmers can afford to take our advice". Due to the dependence of the extension services on others such as rural credit, agricultural research, marketing, seed and seedlings,

etc. The lack of integration among project components restricted the performance of agricultural extension. Also, the action of extensionists was limited by lack of funds, principally affecting local offices and co-ordinating offices. Extensionists frequently spent more time in their offices than the field because there was a chronic shortage of vehicles, as well as of funds for fuel and vehicle maintenance. The substitution of the budgets of EMBRATER (Brazilian Enterprise for Technical Assistance to Agriculture) and other sources by the IRDP, carried with it a dependency of EMATER on project budgets.

Despite this, the extension service obtained satisfactory performance figures in the attainment of basic targets, such as: number of producers assisted, area in hectares, herd assisted and number of demonstration units implemented. However, in "final reports" from the World Bank and Technical Units, EMATER was judged in terms of inputs rather than outputs: number of farms assisted, area assisted, number of demonstration units, assistance to farmers' groups, etc, rather than rates of adoption of new varieties, observed yield increases, or transformation of the local economy. Although it was affirmed that "good transfers of technology were realised in some municipalities" and "installed demonstration plots which were technically well-managed; they showed various production systems (including both monocropping and multiple crops) and used traditional and improved technology" (World Bank, 1988:12), it is difficult to measure the quality of the services rendered.

Some observers of POLONORDESTE felt that the quality of the extension services had been compromised by their rapid growth and the way in which they grew. Before this expansion, trained agronomists working directly with farmers predominated in the extension services. Because of a new model of extension that required working with much larger number of farmers per extension agent, the service rapidly took on many middle-level "agricultural technicians", who were usually poorly trained. The trained agronomist, who used to interact with farmers, started to stay at his desk supervising his new inexperienced technicians, who were effectively the farmers' main contact (Tendler, 1988:34-35). Thus, besides the satisfactory figures in the attainment of basic targets, there was also a perception of the "lack of professional

capacity in the fields of EMATER", aggravated by the "high turnover of staff at local level" and by the "political mismanagement" in the designation and choice of staff, as well as the "ineffective monitoring of work carried out in the field".

Connected to the activities of EMATER, there was a component called "Seeds and Seedlings". With project resources, the State Seeds and Seedling Company - Companhia de Sementes e Mudas de Pernambuco (SEMEMP) linked to the Secretariat of Agriculture (SAG) was set up in 1979. It produced seeds for basic crops (beans and corn), seedlings for passion fruit, citrus, avocado, coconut and papaya, and banana suckers. The budget of the project allocated to the production of seeds, which was based on EMATER demand estimates, consisted of moving capital for the SEMEMP. The budgets formed a revolving fund that was injected annually with resources. As there was no indexation of the budgets, with growing inflation, the power to purchase of seeds was greatly reduced as the years went by.

It is not clear what share of the project area's needs were met by the project, nor what share of seeds and seedling production went to the small-scale farmers. However, the seed-distribution programme was remarkably popular among technocrats, politicians and the poorest farmers. It gave rapid results (in some crops the harvest come only few months after seed distribution) and worked well in the diffusion of an approved variety (once farmers adopted, the harvest would give them their next year's round of improved seeds). Though the extension service did not play its usual organising and teaching role, it was crucial to the execution of seeds distribution.

iv) Land reform and titling

Land access, and poor availability of water were the major problems experienced by the programme. The World Bank document (1983:62) states that "it has been difficult to design and effectively implement land components in IRDPs in a generally weak institutional environment and a political context in which such efforts have traditionally been resisted". The Northern Agreste project included costs for

studies on land acquisition and titling, and eventually for improving land titling services. The study was implemented and pointed out the need for a specific State Land Authority (COTEPE), which was established in 1981 under the Secretariat of Agriculture. This new authority faced similar constraints on land redistribution as the agencies in other states. Nonetheless, 6,300 hectares of land in the municipio of Pesqueira were distributed to farmers under the IRDP-AS-PE. The Bank subsequently addressed the land tenure problem on a wider scale under the North-East Region Land Tenure Improvement Project, which became effective only in March 1986.

The delay in the institutionalisation of COTEPE contributed to an underemphasis on the target for land purchase, since COTEPE could only purchase property via third parties. Apart from that, the methodology used for the purchasing of lands slowed down the process. During 85/86, their method was changed quite significantly, and the property was bought via INCRA, through the instrument of expropriation as used in agrarian reform. Apart from the measures taken, administrative problems such as a lack of qualified technical staff, raising of conventional topography, together with the scarcity of available land and the high price per hectare of rural property, all contributed to the inefficiency in the execution of this component.

This was also the case in the "Water Conservation" component. The project was originally intended to provide for the construction of two 50,000 m³ communal dams, operated by groups of farmers. These were constructed as planned, but the drought required an expansion of targets and a reorientation of the programme. The State Agriculture and Livestock Services Company (CISAGRO) therefore constructed additional 146 small-scale irrigation schemes, dams and tubewells. Consequently disbursements for this component were more than twice those expected at appraisal. The importance of this component was the demonstration effect of the community projects and the scope for expansion of irrigated areas. However, the accomplishments of this component were far below the needs of the farmers located in a semi-arid region, where drought is one of the most serious problems.

v) Roads

Road construction was a major component of the project. Roads accounted for 17% of projected baseline costs and disbursement and the target for road construction was exceeded (1,097 km, or 115%). Infrastructure activities, such as roads, is seen by some technicians as an improvement because with a large road network that was opened could have long term effects, and quite significant economic results. In fact, as Tandler (1988:8) pointed out,

"The Bank and Brazilians... see road-building agencies as among the most powerful of public-sector activities - because of the successful pressures by contractors to spend on roads, the political appeal of road-building to politicians, and the prestige of civil engineers."

Road-building also came under criticism because of poor maintenance (Tandler, 1988:5). Since some construction had not been carried out to standard and maintenance was poor, the rains destroyed some structures. A great part of the roads was lost because there was no conservation and reconstruction proved costly. The state Highways Department (DER-PE) trained municipal workers in road maintenance. However, the municipalities lacked funds of their own to ensure the proper upkeep of roads and eventually it was necessary to support this under the project.

Conflicts occurred at local level about the location of roads - conflict among technicians, politicians, and landowners, and between contending politicians or landowners. Though the victory of local elites or powerful politicians in these decisions about placement of roads might have reduced the social benefit of these investments - locating a road according to political interests or where a powerful landowner has his farm, rather than according to some measure of small-farmer production density or traffic needs - the public nature of the facilities still spread their benefits to a large number of people. Roads, like other infrastructure investments and social services, are politically popular because there are no apparent losers, only winners. However, some suggested that the rich benefited disproportionately from road investments, which often heralded a wave of further

impoverishment of the poor - through a process of increased land values, land buying, and expulsion of tenant farmers.

vi) Support to small non-farm enterprises

The "Small-Scale Non-Farm Enterprises" component was designed to help small "informal" enterprises increase their efficiency and expand, thus improving off-farm employment opportunities. The project supported the development of these enterprises, which performed a variety of activities including food processing, carpentry, ceramics, sewing, leather work, small stores and services. This component was executed by the Northeast Union of Assistance to Small-Scale Organisations (UNO) and was considered "very successful" (World Bank, 1988:47). Some 7,340 enterprises were assisted with management training and about 2,670 enterprises received credit.

Like the extension service, this component relied on access to credit at negative real interest rates, to fund investment by participating small businessmen. According to Tendler (1988:116). "This has attracted better-off firms that might normally have access to bank credit without the project - just as medium and larger farms with access to bank credit tended to edge out the poorest farmers in the highly subsidised credit programmes for small farmers." The subsidised credit was part of a "technical package" including better accounting sales promotion, business planning, etc. Some assisted small enterprises had several subsidised loans. Unlike small farmers, many of the small businessmen graduated the use of unsubsidised credit, as the availability of subsidised dried up. However, like small farmers, there seemed to be little interest in the advisory services in the absence of credit. Just as for extension this component also had difficulty with the non-availability of credit under the project.

vii) Health

The construction targets of the health and sanitation components were exceeded in the PDRI-AS-PE. However health administration continued to be mediocre. The

State did not have the resources to maintain, supply and staff health posts properly. The posts suffered from inappropriate supplies of drugs, poorly trained staff, and infrequent supervision and inspection by the Secretariat of Health. These problems were subsequently addressed on a wider scale under the North-East Basic Health Service Project.

The health posts and associated scheme for training people from the community to provide simple health care represented a useful extension of the health care system to rural people. The key to the success of this component was the training of community members (usual two people for three months) to carry out simple medical tasks, such as inoculation, child delivery, bandaging and splints, diagnosis of common illness or dehydration, etc. The hiring of community members meant that wages could be kept to the low level customary in the community (thus keeping recurrent costs at an affordable level) but responsibility for primary health also gave the health post attendant(s) recognition and status within the community. Extension of this low cost/ low technology health care meant that many health problems were treated, which had previously gone untreated. This system also allowed more serious conditions to be recognised and referred to the local town for professional care.

A large number of water supply schemes and pit latrines were constructed, and many water filters were distributed. However some water supplies fell into disuse because water quality was poor, the system had been poorly built, attendants were not adequately trained, and the villages were not sufficiently acquainted with construction and maintenance procedures.

viii) Education

Targets for school construction, repair, equipment and teacher training were exceeded. This was attributed to the performance of the State Secretariat of Education, in spite of the problems of late release of budgeted counterpart funds. As with health, the staffing of project schools depended on teachers trained in the community. Because the low salary level, only very poorly trained local people are

likely to be available as teachers. Teachers have often only finished second grade themselves.

If physical targets were met through the construction of schools and though service delivered may have flourished for a few years, just as for health posts, Tendler (1988:22) states that, "the usual problems of flagging political interest and severely reduced operating funds for salaries and supplies ultimately undermined these activities". In fact, in education, low teacher salaries, the low educational levels of teachers, apart from the use of political criteria for hiring and firing teachers, created insuperable obstacles to improving schooling. Nevertheless, many people felt that the project had made a good start in improving educational opportunities open to rural people. However, the emphasis was in the formal education of children and not in professional or adult vocational education "to improve labour productivity".

To a certain extent, the perception of the positive contributions of project health and education components suggests, as Tendler points out (1988:23), "that something was better than nothing." Though the judgements in favour of health and education may not reflect upon the quality of implementation of these components, they nevertheless are consistent with the findings that education and health, when they are supplied, are "more beneficial and accessible to [rural] poor than credit and other agricultural services" as stated in a Bank assessment of the North-East projects (World Bank, 1983:58).

Amongst "social infrastructure" components, such as health and educational facilities, there was also a component aiming to help peasant organisations. This was the "Community Development" component, which was executed through the Programme for the Development of Rural Communities (PRODECOR), a national agency of the Ministry of Agriculture. This component was not present at the beginning of the Northern Agreste IRDP and the proposal to encourage participation and organisation of small producers in the execution of "community projects" started only in 1981. Under the experimental programme, some small-scale infrastructural

improvements were carried out in three municipalities; construction materials were provided by the fund and unskilled labour was contributed by the population.

ix) Marketing support

The marketing component was executed by EMATER and selected co-operatives, and a large number of other agencies (CISAGRO, COBAL, FECOMIPE, OCEPE, ASSOCENE, and CEPA). Resources at the beginning of the project channelled towards strengthening the structures of the actual executing agency, such as the purchase of weighing machines or employment or training of staff. At the beginning, the action was summarised at the meetings, preliminary studies and in the selection of beneficiaries. Meanwhile, this component was progressively diversifying its activities, introducing the commercialisation of horticultural products, providing operating credit to farms before the planting season through the advanced purchase of production (CAP - Advance Purchase Programme) and buying the production surplus (CEP - Surplus Production Purchase) at guaranteed minimum price. Many people referred with enthusiasm to CAP and CEP, minor parts of the project, because both programmes gave priority attention to the basic crops produced by large number of poor farms - beans, corn, manioc, and cotton, a staple of the mixed farming system. However, their success was undermined by the long drought. Other actions included purchasing and resale of agricultural and livestock products, incentives to caprinoculture, implementation of microindustries and places for the refilling of supplies, improvement of open markets, public markets and slaughterhouse.

Important to the "marketing component" was the execution of "Co-operative Support", which was channelled towards 20 co-operatives and involved a large number of state agencies (EMATER, OCEPE, FECOMIPE, CEPA, CISAGRO, and COBAL). CISAGRO and COBAL participated via their commercial agencies, places of resale of agricultural and livestock products located in municipalities in the area of the project where co-operatives did not exist. Actions were directed almost exclusively to the strengthening of the co-operatives infrastructure. However,

artificial criteria were adopted for the selection of the co-operatives to be benefited. As far as problems related to the financial-economical weakness and the low quality of the services offered, autocratic gestures were added to differential treatment to small and large associates. In relation to the large number of agencies involved, they acted individually and without integration.

The attainment of the targets of education and training of officials and associates in the "co-operative" component were exceeded. However, only four of the planned 16 crop assembly warehouses were constructed, due to budget cuts and lack of interest of the co-operatives. Radio equipment was provided to improve communications between EMATER, the co-operatives and the Agricultural Information Service (SIMA), but information is not available on whether reliable market news was in fact broadcast to farmers as planned.

4. Conclusion

The purpose of this chapter was to discuss policymaking and policy-implementation in action, focusing on the bureaucratic complexities and the contradictions of the project's implementation with its social and economic aims. In particular, it shown the way in which the interaction amongst local institutional and political interests helped shape high rural development policy. As we have seen, the integrated approach used in POLONORDESTE seems to offer planners coherent ideas about how public policy could be designed to respond to problems of rural poverty and underproductivity. However, through the analysis of the implementation process became clear how the policy instrument and strategies chosen to secure social and economic objectives were inconsistent with the full attainment of these objectives.

Pursuit of the administratively ambitious integrated rural development projects was bound to involve serious obstacles. Nevertheless, beyond the problems of management and administration, and regardless of the capacity of bureaucratic officials to successfully implement, public policy ideologically shaped by elite goals at national level were subverted by alliances of bureaucrats and local politicians

competing for their slice of the new resources when the project comes out of the planning process. It was during the shaping of the day-to-day administration and implementation that capture of the project by interest group politics and patronage were most evident.

As policy moved from the high policy planning stage into operation and investments were made and allocated in a specific spatial context, the primacy of the governors and local politicians as the key political actors within the states appeared and influenced policy outcomes. The over-expansion of the projects and their loss of the original growth-approach focus clearly indicated the government intention to ensure that politicians and officials in each municipality and electoral constituency have access to resources with which to secure a political support. However, this over expansion, which was limited only by budget constraint, generated inefficiency to the extent that too few resources were provided for each farm.

The evidence suggests that the most influential proponents behind project implementation were: (i) elected local leaders - the governor, legislators and mayors - who increasingly viewed small farmers as an important constituency; (ii) like-minded executing agencies which provided the services, who were not traditionally oriented toward working with small farms; (iii) the World Bank, which had a great influence on planning and faced the task of channelling money through implementing agencies²⁰; (iv) small and medium-sized capitalised farmers, who as a preferential clients, had a strong influence in diverting project away from the poorest target group; and, unfortunately, lastly (v) landless farmers or small owners with inadequate access to land, who were far less able than other mentioned actors to articulate their interests.

²⁰ According to Payer (1982), the World Bank was in the business of lending money and "the handiest metric for assessing individual officers and offices was the volume of funds spent rather than any measure of their investments' development impact". He stated that "Its officers gain promotion on the basis of how well they are able to fill the quota (they call it the "pipeline") for area or country under their charge, in order to meet MacNamara's massively expanding lending goals. As a result, they fund projects that are dubious by their own standards of cost-effectiveness, and lend large sums to projects that could have been funded at much less cost. The result is projects which are top-heavy with money spent on overpriced inputs, including an army of expensive foreign consultants"(1982:245). See also Clements (1993:1640).

For local elites, survival depends on securing government largesse for their regions and the governors found project resources useful to the extent to which the services could be provided among competing areas or applicants on a discriminatory basis so that it could be used to bargain for political support. Most of the components - land, credit, marketing, building of health posts and schools, roads, water supply, and enterprise programmes - shared characteristics that made them politically appealing, especially to the governors wanting to show their constituency that they were concerned about poverty. These were: (i) results visibility; (ii) results rapidity, at least within the term of a state government; (iii) extensiveness, with the potential for reaching a large number of people, particularly poor ones.

The grown up of the bureaucracies to manage the project and to expand services offered has another political utility. Jobs on project administration - and jobs in many of federal, state and municipal bureaucracies involved in the project - represent political plums, given by those in charge of the programmes to their followers. However, in this expansion of services, performance was often weak, given to the tendency of to hire too large staff that is technically untrained. This fact also generates inefficiency, undercutting the economic viability of the project.

In sum, the analysis of the IRDP implementation-process and outputs seems to confirm the theoretical assumption of rational-choice theory, which has dismissed the characterisation of policy-makers "as selfless dedicate to disinterested pursuit of the public-good" as a "hopeless naive characterisation of political motivation". In its place, rational choice posits that "they behave as standard economic theory assumes *Homo economics*: they maximise their personal well-being." (Williamson, 1994:13). Technocrats are not powerful in the decision making process and they are ineffective without the support of politicians. They became powerful because politicians choose to make them so and organise the political process in a way that enables them to exploit the technocrats' informational advantage (Bates and Krueger, 1993:463). And politicians do not delegate to technocrats control over policy making and the power of implement policy reforms.

A key determinant of the behaviour of politicians is the structure of political institutions. As we have seen, the rules that organise political competition generate political incentives shaping the behaviour of politicians. As a result of the characteristics of the institutions that determine political and policy rules, public policy becomes the subject of individual political choice. Because politicians want power, they are more frequently concerned with using public resources in a way that is politically useful than they are with using them in a way that is economically efficient. As a result of this typical behaviour a "social dilemma"²¹ arises, and two development problems were engendered for the project. First, costs grow excessively, making it difficult to generate earnings that which could cover the costs of the project or to generate a rate of return comparable to that could be obtained through alternative uses of government funds. Second, because the lack of effective control over the services provided, the considerable resources committed to the project were typically used inefficiently and, therefore the overall development effort was weakened.

As we have seen, politicians supported the project because it could serve as source of rewards for their followers and as an instrument for building a rural political constituency. In their effort to use the project resources to cultivate political popularity, political elites were providing services and production inputs that could nevertheless generate strong support for small farms with important consequences at the level of local structures and processes. As we will see in the following chapters, rural development policies promoted for political reasons, can also be important instruments to advance social and economic ends.

²¹ Bates (1995:29) refers to "social dilemmas" as those kinds of problems which arise when choices made by rational individuals yield outcomes that are socially irrational. According to him, "A social dilemma arises when radical individualism becomes inconsistent with social welfare."

TABLE IV.2 - IRDP-AS-PE: PROJECT TARGETS AND ACCOMPLISHMENTS

Component	Unit	Appraisal Estimate	Accomplishments Total	%
Credit				
Credit Plans	No.	6,800	13,788	203
Investment Credit	Cz\$	n.a.	24,423,827	n.a.
Seasonal Credit	Cz\$	n.a.	7,129,767	n.a.
Cooperative Credit	Cz\$	n.a.	314,956	n.a.
Agricultural Extension				
Extension Staff	No.	140	127	91
Administrative Staff	No.	44	52	118
Farmers Receiving Assistance	No.	15,540	23,001	148
-Landless	No.	4,662	9,435	202
-0-10 ha	No.	8,236	9,890	120
-10-50 ha	No.	2,642	3,686	140
Area Assisted:		n.a.	301,520	n.a.
-Rainfed	Ha.	n.a.	67,565	n.a.
-Irrigated	Ha.	n.a.	2,347	n.a.
-Pasture	Ha.	n.a.	231,608	n.a.
Demonstration Units	No.	n.a.	136	n.a.
Assistance to Farmers Groups	No.	800	5,887	736
Assistance to Cooperatives	No.	8	20	250
Agricultural Research				
On-Farm Trials	No.	34	35	103
Other Trials	No.	105	79	75
Seed and Seedling Supply				
Beans	Tons	3,152	1,405	45
Corn	Tons	879	556	63
Cotton	Tons	929	709	76
Passion Fruit	'000	284	470	105
Coconuts	'000	30	92	307
Citrus	'000	90	220	244
Avocados	'000	5	111	2,220
Bananas	'000	n.a.	302	n.a.
Land Tenure				
Land Purchased	Ha.	n.a.	9,595	n.a.
Land Titling	No.	n.a.	3,099	n.a.
Marketing				
Marketing Studies	No.	44	13	30
Construction:				
- Assembly Warehouses	No.	16	4	25
- Municipal Markets	No.	n.a.	12	n.a.
Purchase:				
- radio equipment	No.	10	8	80
- scale	No.	16	16	100
- trucks	No.	8	11	138
Staff Training	No.	122	79	65
Feeder Roads				
Construction	Km	950	1,097	115
Maintenance	Km	n.a.	1,704	n.a.

Non-Farm Enterprises				
Enterprises Assisted	No.	2,340	7,338	314
Training	No.	3,508	6,325	180
Loans Granted	No.	3,276	2,668	81
Education and Training				
Schools Constructed and Expanded	No.	76	115	151
Schools Improved	No.	n.a.	391	n.a.
Schools Equipped	No.	75	146	195
Training Teachers	No.	1,518	1,607	106
Training Supervisors	No.	82	82	100
Vocational Training	No.	7,200	5,897	82
Health and Sanitation				
Health Centres and Posts:				
- Constructed	No.	4	13	325
- Improved	No.	3	11	367
- Equipped	No.	22	57	259
- Operational Support	No.	n.a.	105	n.a.
Sanitation				
Construction of Pit Latrines	No.	5,660	4,770	84
Distribution of Filters	No.	n.a.	10,330	n.a.
Training	No.	2,992	3,269	109
Water Supply				
System Studied	No.	36	100	278
Systems Installed	No.	36	86	239
Cooperative				
Cooperative Assisted	No.	8	20	250
Cooperat. Education for Farmers	No.	800	5,887	736
Associate's Training	No.	80	1,785	2,231
Officials Training	No.	240	319	133
Water Conservation				
Constructed				
- Communal Dams	No.	2	2	100
- Small Dams	No.	n.a.	41	n.a.
- Tubewells	No.	n.a.	54	n.a.
- Small-Scale Irrigation Schemes				
Irrigation Demonstration	No.	n.a.	51	n.a.
Units Constructed and Maintained	No.	n.a.	35	n.a.
Purchase of Tractors	No.	8	8	100
Community Development				
Community Activity Participating	No.	n.a.	721	n.a.
Families	No.	n.a.	19,340	n.a.

Source: PRORURAL, Relatorio de Finalização - PDRI do Agreste Setentrional, Recife, February 1988.

n.a. Not available.

TABLE IV.3 - PDRI-AS-PE: TOTAL PROJECT COSTS BY COMPONENT (US\$ '000)

Category	Estimated Costs	Total Costs	Final Appraisal (%)	Relative Importance
Credit:				
.Seasonal	18,606	7,444	40	7.2
.Investment	26,318	24,442	93	23.7
Agricult. Extension	8,705	16,605	191	16.1
Agricult. Research	1,340	2,318	173	2.2
Seed Supply	417	750	180	0.7
Water Conservation	710	1,662	234	1.6
Cooperative	994	2,473	249	2.3
Marketing	1,757	1,958	111	1.9
Roads	15,081	17,890	119	17.4
Non-Farm Enterp. (*)	2,646	2,075	78	2.0
Water Supply	2,970	1,667	56	1.6
Education	4,536	4,490	99	4.4
Health	1,690	2,194	130	2.2
Management(**)	3,913	9,903	253	9.6
Unallocated:				
Community Development	-	2,599	-	2.5
Land Tenure	-	3,827	-	3.7
Training	-	808	-	0.8
Total	89,683	103,085	115	100.0

Source: THE WORLD BANK..Pernambuco Rural Development Project - Agreste Setentrional, In: Project Completion Report - Brazil. Agriculture Operations Division / Brazil Country Department, June 1988.

(*) Excludes BANDEPE credit

(**) Includes monitoring and evaluation

CHAPTER V – OUTCOMES: PROJECT IMPACT AT THE FARM LEVEL

1. Introduction

As we have seen in the previous chapter, the strategic political motivation of the military regime to deal with two of the biggest problems of the rural North-East through POLONORDESTE - poverty and lack of agricultural modernisation - was its search for legitimacy and political support. In the “democratising period” the regime sought to manage its legitimacy through the pursuit of redistributive and populist politics because it needed to mobilise political support through elections. However, besides the manipulation of the programme for organising a rural constituency, the regime’s need for legitimacy required that the programme should succeed in achieving its social and economic goals.

Indeed, it seems realistic to suggest that no State anywhere has the freedom to select and implement policies on the basis of economic considerations alone. Even States with highly legitimised institutions are confronted with the need to decide economic policies on the basis of a mixture of economic and political motives. Nevertheless, it might be argued that rural development policies which are promoted for political reasons could also be important instruments for improving social and economic indicators. In fact, several State interventions point to the fundamental role of politics for agrarian development.¹

In fact, the most significant constraint on small farm strategy of rural development at local level may well be political. Policies to improve the small farm sector conflict directly with the interests of large-scale farmers who wish to increase their stock of land and capital. Such farmers constitute a powerful political force in virtually every country where agriculture has been an important economic sector. In Brazil, especially in the North-East region, these farmers are

¹ See, for instance, Harriss (1995) analysis of the role of politics in the trends of change in the agrarian structure and agricultural development in India.

so well entrenched in the political system that governments are simply unable to pursue policies of which they disapprove.

However, the way in which political management has been achieved during the democratising period has introduced an inclination towards populist policies, amongst them rural development programmes which lead to a provision of services and production inputs to small farmers, with important consequences upon local level structures and processes. As we will see in the quantification of some effects of State intervention on the Northern Agreste farmers' economic activities set out in this chapter, there is no reason to automatically assume a negative relationship between State involvement in agriculture and small-scale agricultural production.² This evidence also argues against analysis of rural transformation which tended to regard the State and questions of politics as largely external to agrarian processes. The State matters, and the relationship between State and local society can exercise a powerful influence upon local power structures and processes of agrarian differentiation.

The purpose of this chapter is, thus, to illustrate some aspects of the nature and extent of the short-term transformations taking place the Northern Agreste farming activities under the impact of State intervention. Trends in the Northern Agreste agrarian structure can be partially inferred from changes in the pattern of landownership, composition of agricultural capital, levels of technology, land use, major rural activities, marketing patterns and the appropriation of labour of the same farm households through the period studied (1980-85). This analysis is based on information provided by a panel study of 340 sampled farmers of different size categories located in the area of influence of the small farmer oriented Integrated Rural Development Project³.

² Although the area as a whole has benefited from the project, especially through the improvement of infrastructure, the group expected to receive direct project benefits was the agricultural population which has no land or cultivated land of up to fifty hectares. This group was labelled "small producers" (pequenos productores) in the project.

³ The data for the panel study was provided by surveys carried out by the "IRDP-AS-PE

2. Changes in the Sample of Farm Households: 1980-1985

From a Marxist standpoint, social relations of production are defined primarily by the mode of appropriation of surplus labour or the "relation of exploitation".

However, in the process of material production, resources are combined with human labour and the help of different tools. Following Harriss (1982), the term "forces of production" is used here to include resources and technology (the means of production) and the organisation of labour.

According to Harriss (1982:110), corresponding to the form of appropriation of surplus labour there is a particular form of ownership of the forces of production. It may therefore be easier conceptually to begin by examining the forms of ownership and control of the forces of production, and to ask how different groups of people are related to the forces of production and to one another in the process of production. This signifies investigating the "agrarian structure".

Land distribution, in the absence of more direct information, shows roughly what the disparities in distribution of income in farming are likely to be. According to Thiesenhusen and Melmed-Sanjak (1990:394), contributions of farm people to agricultural growth and their "benefits" from agriculture vary according to their position in the agrarian structure. The position one occupies in the agrarian structure may also facilitate the choice of technology. Since the agrarian structure acts as a sort of prism through which public goods must filter, it could provide a basis for predicting the likely beneficiaries of government expenditures.

The comparison of the farms surveyed at two points in time give us information about land tenure in two ways: (1) the distribution of land by "units of production" and (2) the legal ownership of the land. We should make it clear that

Evaluation Unit", at the beginning and the end of the project period studied, in six selected municipalities of the Northern Agreste. See Appendix One (Methodology and Source of Data) for a description of the procedures followed in these surveys and for the selection of the panel

the sample represents a privileged section of the Northern Agreste rural population: those who have access to land for independent production, and those who remained in the region as producers during the five year interval covered by the survey.

"Production unit" for the PIMES researchers means the sum of plots of land owned, rented or sharecropped (contiguous or not) which are connected in the process of production under a single command. All the information from the questionnaire is concerned with this production unit. This definition of production unit does not always imply legal ownership (proprietorship) of the land, and signifies the control of means of production for given uses.

"Rented land", in the questionnaire, is land ceded in exchange for a fixed payment. This payment can be in cash or goods. For it to be characterised as "tenancy" the payment needs to be a fixed amount, which does not involve risk for the landlord.

"Sharecropping" is the concession of land where payment is variable. It is, in general, given in kind and involves the sharing of risks between the landlord and the sharecropper. The concession of land in return for stubble fodder or clearing of lands for pasture is also considered to be sharecropping, although the latter does not involve risks for the landlord.

For the purpose of this study, I stratified production units according to their size into four categories distributed as follows: "micro" - less than 10.0 ha; "small" - 10.1 to 50.0 ha; "medium" - 50.1 to 200 ha; and "large" - greater than 200 ha. This stratification follows the usual classification for farm size groups in Brazilian literature. The distribution of production units by farm size, according to this 1980 stratification, will be used as a classification criterion to tabulate data and to analyse changes for each group of the same households interviewed in two panel waves.

2.1. The Distribution of Agricultural Capital

In the Brazilian North-East, as in other "traditional economies" land and water are the principal factors of production together with electricity, seeds and other inputs, principally chemical fertilisers, employed by labour using various instruments, including tools and livestock.

Examination of land distribution patterns through the size of establishments is also one way of identifying changes in the agrarian structure. Despite the relatively small interval between the surveys (5 years) several important changes can be perceived in the evolution of farm structures. Table V.1 shows the distribution of farms, from panel data, classified according to size categories of production units in each year. This table provides a useful representation of the dynamic process of change over time.

The comparison with data from the repeated measurement of household surveyed shows that there are differences in the number of holdings in different size classes of farm in each year. A trend which can be perceived in the sampled farms, between 1980 and 1985, is an increase in the proportion of micro establishments (from 25.9% to 28.8%) and a slight decline in the proportion of medium-scale and large production units. The numbers in bold are the observed "stayers", which correspond to the number of households that remain in the same size category of production unit (279 cases or 82 per cent of the sample). The other numbers are the "movers", which correspond to the number of householders which change to larger (20 cases, or 5.9 per cent of the sample) or to smaller categories of production unit (41 cases, or 12.1 per cent of the sample).

The declining trend in average farm size has been considered in studies of the "peasant question" as evidence of the disintegration of the family-farm sector under the pressures of capitalist development. It is pertinent to ask whether this taking place in the Northern Agreste. The pattern of changing farm size is apparently more complex than this simple model of differentiation suggests.

TABLE V.1 - NORTHERN AGRESTE: DISTRIBUTION OF PRODUCTION UNITS BY SIZE CATEGORY OF FARMS(*), (TURNOVER) PANEL SAMPLE, 1980/85.

Year		1985				Total (%)
Year	Farm Size	Micro	Small	Medium	Large	
1980	Micro no. (%)	78 (88.6)	10 (11.4)	—	—	88 (25.9)
	Small no. (%)	19 (15.4)	94 (76.4)	10 (8.1)	—	123 (36.2)
	Medium no. (%)	1 (0.9)	18 (15.7)	96 (83.5)	—	115 (33.8)
	Large no. (%)	—	—	3 (21.4)	11 (78.6)	14 (4.1)
	Total no. (%)	98 (28.8)	122 (35.9)	109 (32.1)	11 (3.2)	340 (100.0)

Source: POLONORDESTE/PIMES-UFPE Surveys

(*) Micro farms = under 10.0 ha, small farms = 10.1 to 50.0 ha, medium-scale farms = 50.1 to 200.0 ha, large farms = 200.0 ha and over.

Table V.2 shows the comparison of households surveyed in terms of the distribution of total area utilised and the average size of agricultural units in each year, according to their stratification of size categories of production unit from 1980 data. These data showed that the total amount of area in use was less in 1985, which caused a reduction in the average size per unit of production (from 63.5 to 55.3 ha). However, this reduction occurs only in medium and large categories of farm, in which the average size of units dropped from 97.3 to 87.8 ha and from 454.1 to 318.8 ha respectively. There is also a decrease in the proportion of land operated by large establishments from 1981 to 1985 (from 29.3% to 23.7%).

Despite this apparent redistribution of land, the analysis of farmland by size categories of units of production still shows a strong landownership

concentration. However, it is interesting to observe that the average area of cultivated land within small and medium size categories has been maintained, and the increase of micro and small units of production observed in the data does not suggest fragmentation among the "microfundium" holdings (the proportion of their farmland increased from 2.0 per cent to 2.9 per cent, and their average area increased from 4.8 to 6.2 hectares).

TABLE V.2 - NORTHERN AGRESTE: DISTRIBUTION OF PRODUCTION UNITS BY SIZE CATEGORY OF FARMS AND BY LAND OPERATED AMONG HOUSEHOLDS, PANEL SAMPLE, 1980/85.

Farm Size	Number of Farms	1980		1985	
		% of Area	Average Size (ha)	% of Area	Average Size (ha)
Micro	88	2.0	4.8	2.9	6.2
Small	123	16.5	29.1	19.7	30.2
Medium	115	52.0	97.3	53.7	87.8
Large	14	29.3	454.1	23.7	318.8
Total	340	100.0	63.5	100.0	55.3

Source: POLONORDESTE/PIMES-UFPE Surveys

A second approach to land tenure, available from the data, uses the criterion of landownership (or proprietorship). This is different from the Production unit. It includes owned land, which constitutes the landlord's "production unit", and land that the landlord cedes to sharecroppers, tenant farmers, and moradores⁴.

Table V.3 shows the distribution of sample household farms using the concept of legal possession of land, and identifies landless producers. If we exclude landless farmers, the proportion of "micro", in the sampled holdings, increases

⁴ As explained above, "Moradores" are resident workers who receive a parcel of land on the property for independent production and, in exchange, work on the main crop of the establishment.

from 25.8% in 1980, to 30.7% in 1985. This table, which presents the distribution of farms from panel data, classified according to size categories of property in each year, gives an indication of one of the ways in which these changes are occurring. This table also provides a useful representation of the dynamic process of changes over time. The observed changes show a heterogeneous transition pattern of landownership. The numbers in bold are the observed "stayers"; that is to say, they correspond to the number of householders which remain in the same size category of property (274 cases or 80.5% of the sample). The other numbers are the observed "movers" (66 cases or 19.4% of the sampled farms).

TABLE V.3 - NORTHERN AGRESTE: DISTRIBUTION OF PROPERTIES BY SIZE CATEGORY OF LANDOWNERS AND LANDLESS PRODUCERS (TURNOVER), PANEL SAMPLE, 1980/85.

Year	Year	1985					Total (%)
	Property size	Landless	Micro	Small	Medium	Large	
1980	Landless no. (%)	14 (63.6)	8 (36.4)	—	—	—	22 (6.5)
	Micro no. (%)	—	62 (87.3)	9 (12.7)	—	—	71 (20.9)
	Small no. (%)	—	17 (14.2)	92 (76.7)	11 (9.2)	—	120 (35.3)
	Medium no. (%)	—	1 (0.9)	17 (15.0)	95 (84.1)	—	113 (33.2)
	Large no. (%)	—	—	—	3 (21.4)	11 (78.6)	14 (4.1)
	Total no. (%)		14 (4.1)	89 (25.9)	118 (34.7)	109 (32.1)	11 (3.2)

Source: POLONORDESTE/PIMES-UFPE Surveys

The disaggregation of changes in patterns of landownership shows a clear trend towards a reduction in the number of proprietors within categories of medium and large farms. There is an observed mobility in both directions of small landowners

and 12.7 per cent of micro landowners moved to the category of small proprietors. On the other hand, 36.4 per cent of "landless" producers (in 1980) became landowners (in 1985). However, this table shows the same trend in the distribution of production units by size of area, that is, an apparent reduction in the average size of properties (the average size of properties falls from 70.0 ha in 1980 to 57.3 ha in 1985).

In sum, the available data does not provide evidence of any general increase in the concentration of land or of the loss of land by small landholders. On the contrary, there was a reduction in the incidence of landlessness and most smaller farmers were able to retain access to land. Moreover, as a result of partitioning of some holdholdings and the reduction of speculative investment in land, the decrease in the average size of properties occurred mainly in the larger categories of farmers.

The results of our tabulation of the data from POLONORDESTE / PIMES - UFPE surveys are compatible with more recent information from the 1985 Brazilian Agricultural Census, in the sense that the land fragmentation, the so-called process of "minifundização", is a perceptible trend in the structure of land tenure in the Northern Agreste region. Although our aim here is not to distinguish the cause underlying the apparent resurgence of small-scale family production in Brazil, it is important to point out the "common causal elements" highlighted by Goodman as an explanation for the reversal of apparently well-established trends in the agrarian transition in Brazil. These include:

"... declining rates of Brazilian economic growth and the recession of 1981-84 provoked by the debt crisis, and the consequent contraction of urban labour markets, particularly in the building industry and other sectors which absorb large contingents of unskilled labour, including rural migrants. In agriculture, cuts in the supply of rural credit, especially for investment purposes, the virtual elimination of credit subsidies, and fewer resources for agricultural fiscal incentive programmes have raised the real cost of capital. These changes allegedly have slowed down the pace of agricultural modernisation and reduced speculative investment in the land." (Goodman, 1989:6)

It is argued by Mueller (1987) and Rezende (1987) that landowners have reacted to these policy changes and the new condition in rural markets by adopting more

traditional forms of labour and intensive land use in production. In the Agreste region, the "peasantisation" process could mean that capitalist farms are reducing the size of their holding and concentrating capital in them, removing internal peasants and allowing independent/external peasant producers to proliferate.

The declining trend in average farm size has been considered in studies of the "peasant question" as evidence of the disintegration of the family-farm sector under the pressures of capitalist development. It is pertinent to ask whether this was taking place in the Northern Agreste. The pattern of changing farm size is apparently more complex than this simple model of differentiation suggests. The fragmentation of holdings is also considered to be related to rural poverty, through the continuing expansion of sub-family farms. According to FAO estimates (De Janvry and Sadoulet, 1988), as many as two thirds of farm households across Latin America derive more than half of their income from off-farm sources, principally wages from employment in agriculture and a wide variety of other activities.

The striking process of land fragmentation and the proliferation of smallholdings is, according to Lehmann (1982), a refuge for labour displaced from wage or semi-wage employment, permanent and temporary, or for workers who in earlier periods might have expected to enter agricultural wage employment but have found such opportunities closed off. This process of "peasantisation", also observed by Lehmann in his analysis of the evolution of the agrarian structures of North-East Brazil between 1950 and 1970, is explained by the fact that "in the North-East there was still "room" for the peasant to find a refuge against poverty and employment in marginal lands, and there were few alternative job opportunities in agriculture or industry or services" (Lehmann, 1982:258). But for Lehmann this continues to be a marginal activity, excluded from the modernisation process.

However, the differentiated conditions of production in the Northern Agreste led us to question the apparent economic homogeneity of these small farmers. A case study of micro proprietors (less than 10 ha), carried out in a village of this region (Soares, 1983), showed a great disparity in indicators such as income, capital stock and production costs, and tends to confirm the heterogeneity of the economic situation of these "minifundia" producers.

Agricultural capital is composed of the value of land and structures, the value of equipment and livestock. The importance of the analysis of agricultural capital is to account for the level of capitalisation of different farm units, in terms of the means of production at the disposal of labour, and their potential in the generation of an agricultural surplus (Ferreira, 1984). The identification of the availability of capital items within the economic units allows us to identify the composition of agricultural capital in the production units and gives us a rough indication of the development of productive forces and the degree of farmers' reinvestment in land, animals and equipment.

Land is, probably, the most important asset in the farms and its value is supposed to reflect its economic capacity. However, what usually happens, according to Ferreira (1984:134), is that the market value of land exceeds by far its economic value because of other factors, especially in areas where the application of resources in agricultural investment has been encouraged. According to him, the most important factors contributing to this process are: landlords' strong desire for more land; land is seen as an investment that allows protection against high inflationary trends; the connection between possession of land with social prestige; and agricultural credit requirements of land ownership for collateral.

Though land ownership is an important element in defining the level of well-being of a farm household, it is not the only determinant of differentiation. The value of the land depends on localisation, soil fertility and the availability of

water. The value of land is also increased by the value of structures and improvements incorporated. In the sampled farms, these structures consisted of residential masonry houses (an indicator of better conditions of livelihood) and other types of houses, such as mud wall (taipa); improvements, which include flour mills (casas de farinha), cheese mills (queijaria), etc; and other installations (such as storage buildings, livestock pens, etc) and wire fences (the most expensive) or other fences. Manioc flour-making depends upon the use of mills which not all farmers possess. Although the raw material can be processed in someone else's flour mill in return for a payment in cash or "conga" (normally 20 percent of the flour), the owner of a flour-mill is considered well off by the householders, especially if he has an electric mill.

The percentage of farms that have structures incorporated onto the land and the changes, along the five year fieldwork interval, is reported in table V.4.

According to the indicators chosen, micro producers showed a clear trend towards improvement. The percentage of micro producers with masonry houses increased from 64.8 to 77.3%, improvements increased from 9.1% to 11.4%, installations increased from 33.0 to 55.7%, and wire fences increased from 37.5 to 58.0%. In the other categories of farm, there were fewer changes and when these occurred, in most of cases, they were towards a reduction in the proportion of farms with structures incorporated onto the land.

Access to water, related to the existence of dams and wells, as well as irrigation systems and electric installations, are also items which would increase the value of land. Table V.5 shows the percentage of farmers with access to any kind of water storage on the farm, electricity, and irrigation systems. Because of semi-arid climatic conditions, the development of irrigation could be fundamental to eliminating constraints on the level of development of the productive forces in the Northern Agreste. Moreover, irrigation is one of the most important forms of investment on the land, leading to increased production both in terms of the

TABLE V.4 - NORTHERN AGRESTE: PERCENTAGE OF PRODUCTION UNITS THAT HAVE STRUCTURES INCORPORATED INTO THE LAND BY SIZE CATEGORY OF FARMS, PANEL SAMPLE, 1980/85.

Farm Size	Houses (Masonry)	Improvements	Installations	Fences (Wire)
1980				
Micro	64.8	9.1	33.0	37.5
Small	99.3	35.0	75.6	72.4
Medium	92.2	35.7	90.4	85.2
Large	92.9	14.3	100.0	85.7
All	85.9	27.6	70.6	68.2
1985				
Micro	77.3	11.4	55.7	58.0
Small	93.5	28.5	81.3	67.5
Medium	91.3	20.0	89.6	73.0
Large	85.7	14.3	100.0	85.7
Total	88.2	20.6	78.2	67.6

Source: POLONORDESTE/PIMES-UFPE Surveys

variety of crops that can be grown in a year and in terms of productivity per crop. However, only in large farms has it acquired some importance.

The greatest gains in access to water by micro farms can be related to the construction communal and small dams by the project. This was also the case with the slight increase in the number of micro and small farmers with access to irrigation schemes provided by the project. Electrification was not included as a segment of the project. Its access distribution follow the traditional pattern of State investment in the region: there was some improvement in all categories of farm, but access in 1985 was still biased against small farms. Because the installation of eletricity on farms is a private business (the state eletricity company provides eletricity only on main routes), I saw several cases of small farmers who could not afford to install it, even with a connecting point located a few metres from their farm.

TABLE V.5 - NORTHERN AGRESTE: PERCENTAGE OF PRODUCTION UNITS WITH ACCESS TO WATER, ELECTRICITY AND IRRIGATION SYSTEMS BY SIZE CATEGORY OF FARMS, PANEL SAMPLE, 1980/85.

Farm Size	Water Storage, Dams	Wells, Pumpsets	Irrigation System	Electricity
	1980			
Micro	39.8	11.4	1.1	3.4
Small	79.7	29.3	0.8	9.8
Medium	93.0	36.5	5.2	15.7
Large	92.9	35.7	14.3	35.7
Total	74.4	27.4	2.9	11.2
	1985			
Micro	62.5	19.3	2.3	11.4
Small	79.7	26.8	4.1	20.3
Medium	87.8	30.4	2.6	29.6
Large	92.9	28.6	21.4	57.1
Total	78.5	26.8	3.8	22.6

Source: POLONORDESTE/PIMES-UFPE Surveys

2.2. Different Levels of Technology

The level of technology in Northern Agreste agriculture is very low, as confirmed by various studies undertaken so far. With the exception of sugar-cane and some crops produced in irrigated areas, the majority of crops are cultivated using traditional technology. The adoption of technology is also selective in relation to the categories of producers. A small farmer in the Northern Agreste uses cultivation methods based almost entirely on human labour and rudimentary means of production such as the hoe, the scythe, the spade, etc. Despite the generally poor availability of modern capital and machinery on the farms, it is possible to distinguish farmers in terms of levels of technological development.

Table V.6 shows the percentage of each category of farm employing tractors and other equipment. Equipment includes any nonfixed item directly or indirectly

related to production or marketing, such as tractors, ploughs, hoes, oxcarts, dusting equipment, threshing machines, trucks, jeeps or other vehicles. Some tools are so few, simple and cheap that they can hardly be monopolised. Thus, they are insignificant for our analysis of differentiation.

TABLE V.6 - NORTHERN AGRESTE: PERCENTAGE OF PRODUCTION UNITS EMPLOYING TRACTORS AND OTHER EQUIPMENT BY SIZE CATEGORY OF FARMS, PANEL SAMPLE, 1980/85.

Farm Size	Tractor	Oxcart	Trucks	Equip. Treat.	Threshing Machine
	1980				
Micro	3.4	10.2	2.3	17.0	2.3
Small	21.1	35.0	27.6	32.5	15.4
Medium	33.0	57.4	46.0	45.2	31.3
Large	64.3	64.3	71.4	50.0	78.6
Total	22.4	37.4	29.1	33.5	20.0
	1985				
Micro	12.5	17.0	8.0	15.9	5.7
Small	14.6	39.0	26.8	24.4	19.5
Medium	22.6	53.0	47.8	41.7	34.8
Large	57.1	85.7	64.3	42.9	71.4
Total	18.5	40.0	30.6	28.8	23.2

Source: POLONORDESTE/PIMES-UFPE Surveys

The possession of tractors is probably the most important factor differentiating the level of farm capitalisation. It is also a good indication of the level of farm mechanisation. Indices of tractor use are high only on large farms. However, comparison between 1980 and 1985 shows that there is a substantial increase in the number of micro farms employing tractors and there is a slight reduction in these indices in the other categories of farm. These changes could be linked to two factors: First, micro farmers could have access to tractor hire provided by the

State through municipal governments, co-operatives or small farmers associations; Secondly, to cope with the increased real cost of capital and to face the uncertainty of the market for agricultural products, some larger farmers have found hiring out machine to poorest farms to be a profitable activity.

The difficulties encountered in trying to incorporate modern technology on small farms are well-known, particularly among agronomists who have some experience with agricultural extension. Clearly, one of the least appropriate ways to modernise peasant agriculture has been through mechanisation. The relatively low level of farm mechanisation in the Northern Agreste may be explained largely by two factors. In the first place, there is the considerable fragmentation of small units. Additional mechanised technologies can only be used on units that exceed a certain minimum size. In the second place, on medium and large farms, land is used mainly for stock raising, which does not have much need for mechanisation. Moreover, as Ortega pointed out (1986:248),

"The fact that the phenomenon of increasing mechanisation of agricultural tasks is carefully noted while the prevailing use of biological force is repeatedly omitted can lead to distortions, as is the case when it is forgotten, for example, that certain patterns of mechanisation are not suited to the great majority of productive units in Latin American agriculture, or when it is forgotten that appropriate technologies must be sought according to the availability of the various productive factors, particularly the work force."

The ownership of trucks or other vehicles is another factor of differentiation among farmers. The trend in the possession of vehicles follows that observed for tractors. Possession is biased against small and micro farms, but there is a slight increase in the proportion of micro farms with this item in the 1985 survey. As transportation is one of the items which absorbs much of the profit a farmer could get from his production, those who own vehicles are also considered members of the wealthier stratum. Truck owners use their vehicles mainly for activities related to the farm. Moreover, those without much land may buy a vehicle to transport people and commodities to and from the community. Even the possession of an oxcart, a more traditional item but very important for farm activities, is related to farm size.

Livestock includes draft animals and cattle, which are considered agricultural capital on the assumption that they provide a flow of services to the owner and they represent capital equipment. Draft animals and cattle can increase the scale of rural production by providing traction power through which farmers seeking to increase their incomes can bring greater areas into production. Cattle also influence the intensity of production. Where cattle are available so is manure, and use of fertilisers can increase yields. But cattle is an important capital item, both for providing a flow of production (meat, dairy products, hides), and as a capital hedge against inflation (Ferreira, 1984:134).

Table V.7 shows that the number of farm herds has decreased slightly between 1980 and 1985 (from 10,364 to 8,707 head), and does not suggest expansion of livestock as a general path for all categories of farm. However, the average size of herd by size of production units indicates that the changes in the herd size varies among distinct categories of producers. The average number of head per farm on micro holdings increased from 3.3 to 3.7 head. Small and medium farms have both seen a slightly decrease in numbers, but this decrease is more evident on large establishments (where the decrease is from 172.4 to 129.5 head).

Many studies suggest that large farms are the first to introduce technical change and adopt the most modern techniques available (chemical fertilisers, improved seeds, pesticides, etc.) in order to increase production and productivity.

However, there are factors that lead small farms to introduce certain innovations. Although we do not know enough about these factors, Ortega (1986:284) suggests that the prices of industrial inputs play a central role in limiting use of technology, but the extreme shortage of land and the need for increasing production may encourage small farms to use improved seed or fertilisers.

According to him,

"to adopt technologies that involve the incorporation of inputs available in the market may be, from the peasant's point of view, a destabilising element, as they will require him to monetize his economy even more and increase his dependency on the market. For the peasant, it is really not sufficient to be presented with technologies that are only justified in terms of their potential for raising yields or providing for a positive cost-benefit-

TABLE V.7 -NORTHERN AGRESTE: DRAFT ANIMALS AND CATTLE: INVENTORY OF HERD AND AVERAGE NUMBER OF HERDS BY SIZE CATEGORY OF FARMS, PANEL SAMPLE, 1980/85

Farm Size	1980			1985		
	No.	%	Average	No.	%	Average
Micro	286	2.8	3.3	326	3.7	3.7
Small	1,963	18.9	16.0	1,760	20.2	14.3
Medium	5,701	55.0	49.6	4,808	55.2	41.8
Large	2,414	23.3	172.4	1,813	20.8	129.5
Total	10,364	100.0	30.5	8,707	100.0	25.6

Source: POLONORDESTE/PIMES-UFPE Surveys

ratio.[...] it seems that they draw up a kind of balance-sheet as regards the relative availability of resources before introducing any new developments which might make them lose control over their own fate." (Ortega, 1986:283-284)

An indication of the level of technology adopted by various types of farms is presented in table V.8. The inputs considered are only those bought in the market and do not include inputs produced on the farm, such as seeds or natural manure. The pattern of technology varies according to the size of holding and this situation does not change throughout the five years of project implementation. This table shows a situation in which there is, as a rule, a reduction in the proportion of farmers using inputs bought in the market.

Fertilisers, whether natural (manure) or chemical are an expensive item in the production of crops. However, only those who can afford to provide their land with the required amount to overcome low soil fertility are likely to enjoy high yields. Chemical fertilisers have not been widely used in Northern Agreste agriculture, probably as a result of the availability of natural manure. A larger proportion of farmers used modern inputs such as pesticides, fungicides and insecticides and their adoption was not too different among the farm categories. This can be explained by the fact that, in the case of crop disease or pest-

combating, State action included a combination of provision of subsidised credit that allowed small farmers to buy the inputs needed to eradicate disease with a high level of control over its use by the bank and the extension service. The disease and pest campaigns were of especial concern to small farmers, to the extent that they produced the same crop of medium and large farms. If small farmers were not included in the public assistance efforts, infestation in their crops would ultimately spread to larger farmers. This subsidised credit, therefore, forced changes in cultivation practices and in inputs use that were maintained even when these controls were dropped (see Tandler, 1993).

In 1980, only 4.5 per cent of micro farms used selected seeds, compared with almost 30 per cent for larger farms. The situation of small and medium farms is very similar for those farms under 10 hectares. In 1985, there was a slight increase in the proportion of smaller farms using selected seeds, which could be related to the programme of seed distribution by government agencies. This programme helped to change patterns of crop production, with the introduction of new crops, especially fruits.

The proportion of farmers using purchased inputs for livestock, such as vaccines or veterinary medicine and supplementary feed rations, are higher than those using agricultural inputs. The introduction of subsidised institutional and other governments incentives have brought about technological changes in the traditional pattern of cattle-raising through improved cattle breeding, fenced-in grazing and purchased animal feed. The early adopters of the new methods of production were typically larger farmers. The large flow of finance capital that was provided for them has helped accelerate the change from their traditional cattle ranch to the modern capitalist enterprise. However, with the extension of credit availability for small farmers the adoption of technology became much more widespread. Probably as a result of the reduction in credit during the project period there is a reduction in these indices in 1985 for all categories of farm. Except in the case of crop disease control, micro and small farmers

appear to be more linked to the market for the purchase of livestock inputs than for the purchase of agricultural inputs.

TABLE V.8 - NORTHERN AGRESTE: PERCENTAGE OF PRODUCTION UNITS EMPLOYING MODERN INPUTS BY SIZE CATEGORY OF FARMS, PANEL SAMPLE, 1980/85.

Farm Size	Chemical fertiliser	Selected seeds	pesticides / fungicides	Vaccines, semen	feed ration
			1980		
Micro	2.8	4.5	56.8	40.9	47.7
Small	10.6	4.0	65.0	65.0	65.8
Medium	2.6	5.2	66.6	87.0	78.2
Large	14.3	28.6	78.6	85.7	71.4
Total	5.9	5.6	64.1	67.1	65.6
			1985		
Micro	3.4	8.0	42.0	27.2	20.5
Small	7.3	4.9	46.3	46.3	45.5
Medium	4.3	7.8	46.1	55.7	57.4
Large	7.1	21.4	35.7	71.4	78.6
Total	5.3	7.4	44.7	45.6	44.1

Source: POLONORDESTE/PIMES-UFPE Surveys

2.3. Land Use and Agricultural Production

By the 1960s, Agreste farmers planted a large number of products for self-provision as well as for the regional market. Cash crops such as cotton and sugar-cane were planted together with staples like beans, maize, manioc and fruit on a semi-subsistence or even semi-commercial scale. In this system of shifting agriculture, cattle were reared in fallow areas, and during the dry season grazed on the stubble of cotton, beans and maize. Only modest areas of planted pastures and fodder were set aside for supplementing dry season pasture.

During this time, the Agreste was considered to be the bread basket of the North-East, supplying a variety of staples to the sugar plantations and cities of the coast as well as to the cattle-raising Sertão.

During the 70s, cattle ranching became the predominant activity in the Agreste. Large and medium farms have become specialised in cattle raising and artificial pastures cover what had previously been fallow crop lands. The cropped area has ceased to expand in most places and has been drastically reduced where ranching has advanced most. With the rising profitability of livestock production and the greater availability of subsidised institutional credit, the basis of tenancy relations has, increasingly, become the formation of permanent pasture, which the tenant must establish before leaving the land. This conversion of former tenancy land has been accompanied by the parallel substitution of pasture for the landowner's commercial crops, such as cotton and coffee. If cattle-raising has been the most common form of production in the region since colonial times, with a strong influence on the economic, political and social organisation of North-Eastern rural society, recently it has become one of the main forms of capitalist penetration (Goodman and Redclift, 1981; Ferreira, 1984; Bicalho and Hoefle, 1990).

The variation of land use within units of production clearly shows the transformation under way in Northern Agreste farming (see table V.9). In both years analysed, pasture (native and planted) represents most of the farm area (45.0 per cent in 1980 and 48.8 per cent in 1985, against only 17.0 and 19.7 per cent of crop area, respectively), indicating that livestock is spread throughout all categories of farms surveyed. In spite of the predominance of grazing land in the form of native pasture, it could be seen that between 1980 and 1985 there was a substantial expansion in the area of planted pasture.

With extensive cattle-raising the increase in size of herds depends upon expansion of the area with native pasture. The new system of cattle raising uses technical innovation such as planted pasture and purchased animal feed. Thus, the "pecuarização" process can be associated with the expansion of cultivated pasture within land under productive use. However, the area effectively worked is only a small proportion of the total area administered, as native pasture occupies almost a third of the area incorporated into the productive process in

TABLE V.9 - NORTHERN AGRESTE: EVOLUTION IN LAND USE BY SIZE CATEGORY OF FARMS (ROW PER CENT), PANEL SAMPLE, 1980/85.

Farm Size	Fallow/ idle land	Crops	Native pasture	Planted pasture	Total Land (*)
1980					
Micro (ha)	70.0	241.0	58.0	38.5	421.0
(%)	16.6	57.2	13.8	9.1	100.0
Small (ha)	774.6	984.0	984.7	513.2	3,547.5
(%)	21.0	27.7	27.8	13.8	100.0
Medium (ha)	2,916.5	1,696.2	3,964.1	1,649.8	11,192.2
(%)	26.1	15.2	35.4	14.7	100.0
Large (ha)	2,284.5	747.5	1,818.7	654.6	6,357.0
(%)	35.9	11.8	28.6	10.3	100.0
Total (ha)	6,045.6	3,668.8	6,825.4	2,856.1	21,517.7
(%)	28.1	17.0	31.7	13.3	100.0
1985					
Micro (ha)	100.3	280.1	78.4	76.0	541.8
(%)	18.5	51.8	14.5	14.0	100.0
Small (ha)	634.6	1,129.0	997.9	674.6	3,708.4
(%)	17.1	30.4	26.4	18.2	100.0
Medium (ha)	2,074.3	1,814.0	3,312.8	1,648.2	10,100.6
(%)	20.5	18.0	32.8	16.3	100.0
Large (ha)	768.0	482.0	1,565.0	836.0	4,463.0
(%)	17.2	10.8	35.0	18.7	100.0
Total (ha)	3,577.2	3,705.1	5,934.8	3,234.8	18,813.1
(%)	19.0	19.7	31.6	17.2	100.0

Source: POLONORDESTE/PIMES-UFPE Surveys

(*) The total is less than 100% because the total includes land given in moradia, tenancy and sharecropping and land with not specified use

both years. The importance of the area occupied by native pasture may be due to the low quality of land which does not permit a more intensive use of the soil with agricultural production.

An analysis of land use by size of holding shows that the form and intensity of land use varies predominantly according to the size of the units of production.

Different trends can be observed among them in the two years surveyed.

Generally speaking, the larger the unit of production, the higher the proportion of land with pasture and the lower the proportion of crop land. However, this is spread throughout all size categories of production units, and the expansion of the area with planted pasture (from 13.3 per cent to 17.2 per cent) is an important trend.

According to 1980 data, in micro units there was more intensive land use: 57% of the land was devoted to crops and they had the smallest proportion of grazing land. In 1985, they increased the proportion of unused land (from 16.6% to 18.5%), probably as a result of the incorporation of worse quality land, with a slight reduction in the proportion of crop area and a slight increase in the area given over to planted pasture. The expansion of native pasture results from the incorporation of fallow land or other unused areas into the productive process. The important extension of grazing land in micro (especially in 1985) and small establishments could be, as Ferreira (1984:108) suggests, parcels of land of large farms under the administration of landlords given to be farmed by small tenants and sharecroppers, in the continuing symbiotic articulation between small and large farms.

However, in general terms, there was a more intensive occupation of land within farm units, with an expansion of cultivated area (crops and planted pasture). The decrease of forest, fallow and idle land (from 28.1% to 19% of the total land), especially in medium and large enterprises, suggests that a more intensive use of land in the production process was taking place. Most of the expansion of the area under cultivation has been linked to planted pasture and crops.

Nevertheless, livestock appears to be the predominant activity. According to Bicalho and Hoefle's field research⁵ (1990:55), farmers have their own reasons why they prefer cattle raising to cropping: (i) livestock is consistently more

⁵ Their field research was carried out in the Agreste and Sertão between 1977 and 1981, where two areas of advanced penetration of capitalised cattle ranching in the Agreste Baixo of Paraíba State and the enclave of capitalised irrigation along the lower-middle São Francisco River were

profitable than many crops and; although larger farmers could plant high pay-off commercial crops, it does not resolve the "labour problem"; commercial cropping is also more difficult to supervise, thus, livestock fits neatly into the interests of absentee, urban-oriented land-owners.

Low profitability is indeed a problem for a number of crops planted in the Agreste. After 1960, the price of cotton and staples remained relatively stagnant for nearly two decades, so that by the late 1970s "only small farms which use mainly 'unpaid family labour' could plant these crops".⁶ The table on changes in producer prices for the main farm products of the Agreste (table V.10) shows one of the reasons for the preference for cattle-raising.

TABLE V.10 - CHANGE IN PRODUCER PRICES FOR FARM PRODUCTS OF THE AGRESTE (1948/1950=100)

Product	1959/1961	1967/1969	1977	1986
Cash Crops				
Cotton	100.1	68.2	105.7	75.3
Sugar Cane	91.7	110.6	142.9	87.7
Food Staples				
Beans	134.8	108.1	167.6	137.4
Maize	115.1	91.3	101.1	110.1
Manioc	129.3	106.6	413.2	132.2
Livestock				
Beef	157.9	179.7	253.1	318.9

SOURCE: Bicalho and Hoefle (1990)

However, if there are many new cash crops or traditional ones which can offer a large farmer substantially higher profits, other reasons can be added. Cattle raising, because of lower operating costs and less pronounced seasonal price fluctuations, is subject to less market risk than cropping. Environmental risk, in

studied in detail.

⁶ According to Bicalho and Hoefle (1990:55) if a large farmer, who uses exclusively hired labour, planted cotton and staples in 1977 he would lose from US \$ 2 to US \$ 160 per hectare depending on the crop, compared with profit of US \$ 61 - US \$ 79 per hectare for cattle raising. In the same year, operating costs of stock raising were only US \$ 21 - US \$ 25 per hectare in 1977 as compared with US \$ 189 - US \$ 321 per hectare per crop cycle for staples and cotton.

the form of disease and drought, is also more of a problem for cropping than cattle. However, according to Bicalho and Hoefle (1990:57), perhaps the most important stimulus for the expansion of stock-raising is the fact that it is a rural activity which demands a low labour input⁷ and needs little supervision. Nevertheless, labour costs for crop production are not the principal concern for farmers because wages are extremely low in the North-East.

Conflicts related to the Peasant Leagues and progressive labour farm legislation (Estatuto do Trabalhador Rural and Estatuto da Terra) of the early 1960s alarmed landowners, leading to a reduced demand for permanently employed labour. On most farms this work can be done by one or two hired cowhands who are easier to control and who, as waged workers, do not acquire a claim to land rights over time, under the so-called "usucapião" law.

However, other explanations can be offered for the expansion of land for cattle-raising in small establishment. Soares (1983) suggests that small producers may have their own reasons to justify their preference for cattle-raising. For these small producers, livestock represents a form of defence against inflationary pressures. Livestock, because of their resistance to climatic risk, their liquidity and constant value, operates as an instrument of "savings" for situations of crisis. If farmers have a good harvest, they will often acquire a calf or a cow for this purpose. To small farmers the livestock trade has, perhaps, a more important economic role than cattle breeding for meat, cheese and milk production. Among small producers, a cow is sold many times before it goes to the slaughterhouse.

Cattle are also particularly important to those seeking to shift from subsistence to commercial production. In addition, feed crops and foraging can improve the texture of soils; both feed crop growing and grazing can therefore increase the

⁷ The stock-raising system introduced in the Agreste, according to Bicalho and Hoefle (1990:56) needs less than 10 man-days work a year per hectare, while fruit and cereals, depending on the crop, require from 55 to 153 man-days of work.

productivity of existing areas. Besides being a form of capital equipment, cattle also represents a finished product, for they can be sold as meat to urban consumers and so can themselves constitute a major source of income for rural producers. Nevertheless, Ferreira (1984:113) states that food production is basic for capitalist accumulation in the livestock sector through the supply of cheap labour and the creation of a fund inside the farm unit. This is because food production makes available grazing land and increased fenced-in areas for cattle-raising, and provides other basic conditions for capitalist accumulation in the sector.

Those trends which have been occurring in the product mix, to some extent, can be deduced from data on the evolution of the share of each category of farm cultivating the main crops (Table V.11). This table also shows the importance of each category of farm in the production of the main crops. Although these data are too few for a complete analysis of the complex changes under way, some conclusions can be drawn.

All categories of farms produce food crops either for their own consumption or for the market. The most important food crops are beans (including castor beans and two other varieties of beans, "de arranca" e "de corda"⁸), manioc and corn. These crops make up a large proportion of the diet in the North-East. Beans are also a typical commercial crop and, although important on medium-sized farms, are also produced on micro, small and large farms. Manioc represents a large proportion of food production and is one of the most important crops of the poor population because it provides flour, a sub-product found in the diet of virtually every low-income group. It is also produced on all categories of farms, except on large farms.

⁸ "De corda" beans are more resistant to short rainfall intervals and suitable for different types of soil, and are cultivated throughout the North-East region. Cultivation of "arranca" beans is more suited to fertile soils and valleys.

TABLE V.11⁹ - .NORTHERN AGRESTE: SHARE OF EACH CATEGORY OF FARMS IN THE PRODUCTION OF THE MAIN CROPS AND DAIRY PRODUCTS (row per cent), PANEL DATA, 1980/85.

Crops	Micro	Small	Medium	Large	Total 1,000 Kgs (100.0%)
1980					
<u>Cash Crop</u>					
Sugar-cane	0.7	73.9	25.4	-	3,742.0
Cotton	17.5	24.0	49.7	8.8	30.8
Coffee	2.6	59.0	38.0	-	27.1
<u>Food Staples</u>					
Beans	13.4	36.2	41.1	9.3	129.5
Manioc/Cassava	13.1	43.5	43.5	-	2,055.2
Corn/Maize	16.5	38.8	31.1	13.7	187.5
<u>Vegetables/fruits</u>					
Tomatoes	0.5	80.0	11.8	7.7	142.9
Bananas (*)	5.2	71.4	23.4	-	658.9
<u>Livestock</u>					
Milk (**)	1.1	11.5	29.0	58.5	1,693.6
Cheese	1.2	15.3	57.4	26.1	73.3
1985					
<u>Cash Crops</u>					
Sugar-cane	3.8	67.6	28.2	0.4	4,882.4
Cotton	5.0	5.0	63.6	26.4	30.2
Coffee	21.7	47.8	30.4	-	2.3
<u>Food Staples</u>					
Beans	26.4	19.2	35.1	19.3	479.5
Manioc/Cassava	9.6	32.0	58.4	-	1,247.7
Corn/Maize	7.6	43.2	37.1	12.1	1,355.3
<u>Vegetables/fruits</u>					
Tomatoes	29.5	17.4	46.0	7.1	254.6
Bananas (*)	0.4	73.6	26.0	-	681.0
<u>Livestock</u>					
Milk (**)	0.8	13.1	58.7	27.5	808.8
Cheese	1.6	15.8	71.1	11.6	31.1

Source: POLONORDESTE/PIMES-UFPE Surveys

(*) 1,000 fruits

(**) 1,000 litre

⁹ The sampled farmers were asked to estimate their postharvest production for each crop. They used several units of measurement that (when it was possible) were transformed into kilos, litre or unit. Although farmer estimates are considered to be fairly accurate (see Poate and Casley, 1985), these results could underestimate the real level of production. To calculate the shared production of main crops I taken the total amount of each crop produced, divided by the amount of the crop produced by each category farm.

Sugar-cane and coffee were produced mainly on small farms, while cotton was produced mainly on medium-sized farms. The increased importance of larger farms in the production of cotton shows that there is no longer any justification for calling cotton a typical "democratic" crop¹⁰, as Andrade (1980) has suggested. In 1985, medium and large farms controlled 90 per cent of production. However, cotton has lost its great economic importance in this region. The arrival of the boll weevil (bicudo) in the North-East region in 1983 devastated most of the cotton crop in the project area.

The output of the major cash crop (sugar-cane), tomatoes and of two major food staples (beans and corn) has clearly increased between 1980 and 1985. While there was a reduction in the production of manioc and coffee. The intensive use of land, especially among smaller farms, was causing a disease in manioc, resulting in a strong fall in production. In the case of coffee, the main reason for its reduction was over-production in the South-East.

The reduction in the size of herd lead, as a consequence, to a decrease in the production of milk and cheese, the main livestock products. However, this reduction was more intense on larger farms which, in comparison with other groups of farms, clearly lost its relative importance in this economic sector. In 1985, medium-sized farms were responsible for the bulk of dairy production. Most of the production of basic food staples also takes place on medium-sized farms. According to the 1985 survey, they control 35.1 per cent of the production of beans, 58.4 per cent of manioc and 37.1 per cent of maize.. A general conclusion is that medium-sized farms appear to play a more significant role in Northern Agreste agricultural production in 1985 compared with 1980.

Nevertheless, micro and small farms also play an important role in the production of basic food staples, as well as in cash crops. Considering the proportion of land operated by micro and small farms it is surprising that they accounted for

¹⁰ Andrade (1980) considers cotton a "democratic crop" because it was cultivated equally by rich and poor farmers. Cotton is not difficult to grow and can be cultivated in association with beans and corn. It is easily harvested by man, women and children.

such a large percentage of production. In the 1985 survey, they were responsible for 71.4 per cent of sugar-cane, 69.5 per cent of coffee, 45.9 per cent of beans, 46.9 per cent of tomatoes, and 74 per cent of banana production. High-value crops are grown on some of these micro and small farms, and this accounts for the fact that their marketable surplus was on average so unexpectedly high, as we will see in the next section.

2.4. Market Orientation

It is well-known that peasants use part of their production for auto-consumption and that they mainly produce foods for their own subsistence. This fact has generated the idea that small farmer producers have no market links. However, according to Ortega (1986:265), this notion does not take into account the true contribution of peasant farmers to the supply of agricultural products and does not rule out the possibility of their making an important contribution to the market. Ortega, in his article about peasant agriculture in Latin America, stressed that:

"If one takes into account the fact that levels of own-account consumption amount to about 60 per cent of production, even though there are considerable variations between regions, depending on the characteristics of the basic infrastructure and proximity to the main urban centres, the participation of peasant producers in the market, either as buyers or suppliers, is definitely confirmed, despite the small scale of their operations when considered individually." (Ortega, 1986:265)

Let us look at some facts. Table V.12, which shows the proportion of production sold of the most important crops cultivated in the sampled farms, illustrates how the various categories of farm are integrated into the market. For our purpose, it will be sufficient if we confine ourselves to food crops. While only a small proportion of cash crops is retained on-farm for seeds and animal feeding purposes, the agricultural production of basic foodstuffs serves either for subsistence or for sale in regional markets.

As can be seen from these data, all types of production unit are integrated into the market to some degree, and even the smallest farms were market-oriented in

TABLE V.12¹¹ - NORTHERN AGRESTE: PERCENTAGE OF PRODUCTION SOLD OF FOOD CROPS BY SIZE CATEGORY OF FARMS, PANEL SAMPLE, 1980/85.

Farm Size	Beans	Manioc / Cassava	Com / Maize
	1980		
Micro	36.8	3.9	32.4
Small	45.0	16.7	26.6
Medium	75.2	16.6	19.7
Large	65.8	-	42.2
Total	49.7	15.0	27.6
	1985		
Micro	55.0	20.9	40.7
Small	46.8	25.1	18.6
Medium	51.8	1.0	31.7
Large	21.5	-	30.7
Total	45.8	9.4	28.9

Source: POLONORDESTE/PIMES-UFPE Surveys

the survey years. The low level of trade in manioc production is due to the fact that, on the whole, it is kept for processing on the farm and a large proportion of the sub-products is for self-consumption. Generally speaking, there are high retention ratios for manioc in all size strata. The high retention of food staples such as beans and maize in larger farms is due to the fact that most of this production is destined for sharecroppers and moradores, in the existent articulation between large farmers and minifundia.

The case of micro farms is an eloquent example of increased integration into the market. In 1985, for instance, only 45 per cent of the production of beans in micro farms was retained for on-farm consumption falling from 60 per cent in 1980. Apart from the example of beans, 4 per cent of manioc and about 30 per

¹¹ The percentage of production sold was calculated with the basis in the answers of the farmers, who estimate the amount of marketed crop from their postharvest production.

cent of maize were sold in 1980, increasing to 20 per cent of manioc and 40 per cent of maize marketed in 1985.

It is widely known that minifundia mainly supply food for mass consumption, and this limits the possibilities of these farmers obtaining high prices for their products. There is some evidence of consistent urban bias in economic policy, in the sense that State policies are deliberately aimed at lowering prices of food crops in order to avoid social pressures or pressures on wages, or to favour accumulation processes in the urban area (see Bates, 1981). It is often expected that low prices of staples tend to cause a short-term contraction in supply or, if prices remain systematically low, it is suggested that production should be halted. However, special attention should be paid to the manner in which small farmers react to low prices.

According to Ortega (1986:267), in general the alternatives available to peasants are limited to the usual components of own-account consumption and the prospects offered by certain products such as vegetables, fruits or some cash crops (sugar-cane, cotton, coffee, etc.). The essential peasant rationale, the aim of guaranteeing themselves a certain standard of living, continues to operate in such circumstances. If the satisfaction of their needs requires additional work, they may be prepared to perform it. They will be also willing to increase their production or sell more products if a certain level of money income is required to purchase products which they consider essential. Hence, when faced with low prices, peasants are obliged to increase market supply.

The capacity of farmers to use the market to safeguard their interests is well documented by Bates (1981:82-87). The expected behaviour is that "when the price of a particular crop increases, then we should expect farmers to shift resources out of the production of other crops and into the production of the higher-priced commodity". Conversely, "when the price of a particular crop declines, we should expect farmers to shift resources into the production of other commodities whose prices appear more attractive". With what is called the "own-

price" response, peasants exploit the alternatives open to them in the market and, thus, they are able to defend their incomes against adverse shifts in the prices of particular commodities.

Tables V.13 and V.14 present the ranking of crops by value of gross sales for each category of farms in 1980 and 1985. It should be noted that these data include only the value of marketed agricultural output. Traditional crops (foodstuffs, coffee, and some vegetables and fruits) are consumed on-farm as well as being marketed, while cash crops generally are not, so that the ranking of crops in terms of total production may well differ from the ranking in terms of total sales.

The appropriate question now is: Which of the farm groups is responsible for the bulk of marketed output of agricultural production? The largest gross crop income from a single category in both years was generated by small farms (the 10-50 hectare group), which produced about 50 per cent of marketed output. In 1985, these small farms generated 60 per cent of gross receipts in cash crops, almost a third in food staples and, 60 per cent in vegetables and fruits. Medium-sized farms ranked second, with more than 40 per cent of cropping receipts in 1980, which saw a slight decrease to 32 per cent in 1985. Their importance was greater in the supply of food crops in 1980 (55 per cent) and, despite the reduction of this proportion in 1985 (to 40 per cent), they remained the most important supplier of food staples. For the smallest sized category of farm the percentage of gross output increased from 3 per cent to 10 per cent, mainly food production. Larger farms, with a more specialised production pattern, rank last in the total value of marketed output.

Comparison of the value of gross sales among crop sub-groups in each year shows some of the changes under way. In 1980, cash crops ranked first, accounting for 37 per cent of total value. In 1985 this fell to 23.3 per cent and this group of crops ranked last among marketed crops. Sugar-cane clearly

TABLE V.13¹² - NORTHERN AGRESTE: CROPPING: VALUE OF MARKETED OUTPUT BY SIZE CATEGORY OF FARMS (IN US \$) PANEL DATA, 1980.

Crops	Micro	Small	Medium	Large	Total
Cash Crop					
Cotton	2,607	22,086	6,353	1,293	32,339
Sugar-cane	226	42,922	11,047	-	54,195
Coffee	614	18,742	11,118	-	30,474
Other cash crops	62	10,879	13,350	-	24,291
Sub-total	3,509	94,629	41,868	1,293	141,299
(%)	2.5	67.0	29.6	0.5	100.0
Food Staples					
Beans	2,961	11,798	14,428	3,666	32,853
Manioc/Cassava	653	8,549	25,196	-	34,398
Corn/Maize	1,826	3,595	2,268	1,935	9,625
Other food crops	-	798	2,436	-	3,233
Sub-total	5,440	24,740	44,328	5,601	80,109
(%)	6.8	30.9	55.3	7.0	100.0
Vegetables/fruits					
Tomatoes	73	10,163	767	875	11,878
Other vegetables	1,009	3,436	1,458	-	5,903
Bananas	271	5,206	2,010	-	7,487
Other fruits	478	4,133	2,218	-	6,829
Sub-total	1,831	22,938	6,453	875	32,097
(%)	5.7	71.5	20.1	2.7	100.0
Processed food					
Manioc Flour	1,652	47,979	75,419	-	125,050
Total	12,432	190,286	168,068	7,769	378,555
(%)	3.3	50.3	44.4	2.1	100.0

Source: POLONORDESTE/PIMES-UFPE Surveys

¹² The value of the marketed output was calculated based in the answers of the farmers, who informed the amount sold, the price that was paid, and the month in which the crop was sold (see table 6 of the questionnaire). This value was converted in dollars, according to the official value for exchange in the respective month.

TABLE V.14 - NORTHERN AGRESTE: CROPPING: VALUE OF MARKETED OUTPUT BY SIZE CATEGORY OF FARMS (IN US \$) PANEL DATA, 1985.

Crops	Micro	Small	Medium	Large	Total
Cash Crop					
Cotton	251	493	6,310	1,860	8,915
Sugar-cane	2,136	43,173	21,324	-	66,633
Coffee	1,219	909	941	-	3,069
Other cash crops	971	12,420	2,632	-	16,023
Sub-total	4,577	56,995	31,207	1,1860	94,639
(%)	4.8	60.2	33.0	2.0	100.0
Food Staples					
Beans	17,455	16,079	30,330	8,146	72,010
Manioc/Cassava	4,647	9,173	1,472	-	15,293
Corn/Maize	4,970	12,499	24,931	4,609	47,009
Other food crops	689	6,604	117	-	7,410
Sub-total	27,761	44,355	56,850	12,755	141,721
(%)	19.6	31.3	40.1	9.0	100.0
Vegetables/fruits					
Tomatoes	3,920	4,330	1,124	1,325	10,699
Other vegetables	2,590	24,777	24,908	17,297	69,572
Bananas	-	8,783	3,416	-	12,199
Other fruits	679	44,833	-	-	45,512
Sub-total	7,189	82,723	29,448	18,622	137,982
(%)	5.2	60.0	21.3	13.5	100.0
Processed food					
Manioc Flour	3,161	20,395	14,763	-	38,319
Total	42,688	204,468	132,268	33,237	412,661
(%)	10.3	49.5	32.1	8.1	100.0

Source: POLONORDESTE/PIMES-UFPE Survey

predominates among cash crops and its importance increased in 1985. Small farms play a major role in supply. Cotton production, a traditional and most important cash crop of the Agreste region, has seen a significant reduction in the relative value of gross output. This reduction also occurred for coffee.

Most manioc is sold in the form of meal. Manioc flour, as a processed product, ranked first in terms of the value of gross sales in 1980. Because of the strong fall in manioc production in 1985, there was a strong decrease in its gross output value, as well as in the value of marketed manioc flour. Nevertheless, food staples together ranked third in 1980 (22.2 per cent), and, in 1985, there was a predominance of these crops in the value of gross farm income (33.6 per cent). The value of sales of beans and corn, among food staples, shows a clear increase in the commoditization of foodstuffs.

Overall, the trends in ranking of crops by value of gross sales show an increased diversification of agricultural production. In 1980, vegetables and fruits ranked fourth, corresponding to only to 8.5 per cent of the value of agricultural sales; tomatoes and bananas were crops that clearly predominated. In 1985, this group of crops was as important in sales as food staples and was responsible for 33.4 per cent of gross agricultural income on the farms surveyed. This increased value stems mainly from the sale of several fruits and vegetables, some of them cultivated in irrigated areas. At a regional level, fruits and fresh vegetables are crops that are very representative of small farm commoditization. In 1980, their share in the marketed output of small farmers corresponded to 12 per cent of the gross output, increasing to 40 per cent in 1985.

How are we to interpret these trends in marketed production? There is some general evidence that small-scale farming and production of staple food was growing in Brazil in the 1981-85 period of economic difficulty. However, small-farm agriculture is a social and economic phenomenon which is often viewed as stagnant, deteriorating, impervious to technology, and undergoing a process of decomposition. As we can see, this was not the case for small farms in the

Agreste. This was also observed by Thiesenhusen and Melmed-Sanjak (1990:400) for Brazil as a whole, where "these small farms, cannot be dismissed as simply subsistence producers, farmers who consume their output and do not make a useful contribution beyond farm gate to the country's economic development".

On the whole, the participation of small farms in stock raising is considerably lower than in crop farming. Nevertheless, although agriculture is limited where cattle raising is concerned because of lack of space, small farms do make a significant contribution to other types of stock raising as we can see in table V.15. Small animals such as pigs, sheep, goats and poultry form a large proportion of the animal population on small farms, whereas cattle are usually raised on larger farms. Many households raise fowl for eggs and meat, principally for domestic consumption and some local trade. The production of pigs, sheep and goats also provide a commodity for sale in regional markets as well as food for family consumption. In addition, it is well known that peasants consider it important to own animals as a form of savings to protect themselves in emergency situations, in place of conventional savings.

This table also shows trends in the ranking of livestock and their products by value of gross sales of the sampled farms. Medium-sized farms appear to be playing a larger role in livestock production for markets, accounting for around 50 per cent of the value of sales in both years. For them, the cattle trade and dairy production are both important. Larger farms produce more than a third of gross receipts in livestock production. The value of the different marketed livestock products originating in micro and small farms accounted to 19 per cent of overall livestock production in both years analysed. Despite the relative importance of small animals on smaller units, cattle play an important economic role for them. Besides being a form of production capital, they act as a reserve of value with liquidity and a guaranteed price. Dairy production is also important for home consumption and some local trade. Cheese, sold to urban consumers, is also an important source of income.

TABLE V.15 - NORTHERN AGRESTE: LIVESTOCK: VALUE OF MARKETED OUTPUT BY SIZE CATEGORY OF FARMS (IN US \$) PANEL DATA, 1980/1985.

	Micro	Small	Medium	Large	Total
	1980				
<u>Livestock</u>					
Cattle	21,038	106,810	288,984	118,291	535,123
Pigs	2,338	4,702	6,982	2,698	16,720
Goats/Sheep	818	1,689	4,851	1,336	8,694
Poultry	806	825	9,230	179	11,040
Sub-total	25,000	114,026	310,047	122,504	571,577
(%)	4.4	19.9	54.2	21.4	100.0
<u>Livestock product</u>					
Milk	3,546	47,368	114,759	236,388	402,061
Cheese	1,820	25,290	99,864	19,071	146,045
Eggs	405	471	33,601	153	34,630
Sub-total	5,771	73,129	248,224	255,612	582,736
(%)	1.0	12.5	42.6	43.9	100.0
Total	30,771	187,155	558,271	378,116	1,154,313
(%)	2.7	16.2	48.4	32.8	0.0
	1985				
<u>Livestock</u>					
Cattle	16,914	59,603	167,022	155,243	398,781
Pigs	3,261	11,557	12,800	1,216	28,834
Goats/Sheep	2,124	438	1,671	530	4,763
Poultry	234	250	9,514	-	9,998
Sub-total	22,533	71,848	191,007	156,989	442,377
(%)	5.1	16.2	43.2	35.5	100.0
<u>Livestock product</u>					
Milk	769	13,242	52,983	69,282	136,276
Cheese	739	21,704	88,821	4,758	116,022
Eggs	286	2,772	11,003	73	14,134
Sub-total	1,794	37,718	152,807	74,113	266,432
(%)	0.7	14.2	57.4	27.8	100.0
Total	24,327	109,566	343,814	231,102	708,809
(%)	3.4	15.5	48.5	32.6	100.0

Source: POLONORDESTE/PIMES-UFPE Surveys

However, the large tracts of land utilised for cattle-grazing was reducing the area of land available for food production. At the same time that land appears to be moving out of food production, the rapid industrialisation and urbanisation of the North-East was making urgent demands upon the rural sector for an increased food surplus at lower costs. The disparity between decreasing land areas available for food production and increasing non-food-production for rural and urban populations that need to be feed, is still one of the principal problems facing agricultural planners in North-East Brazil. State policies for encouraging the small farm sector can be a promising means through which States can achieve substantial and rapid increase in farm cash incomes. Programmes to support small farm production thus promise to increase the level of output, at the same time that they allow States to satisfy their urban-based interests.

2.5. Household Class Status

The process of differentiation of the peasantry is related to the process of class formation. Social scientists studying peasant societies have long been preoccupied with questions about the nature and future of the peasantry, given the rapid and global expansion of capitalism, and these concerns have also spurred a growing interest in arriving at empirical measures of class status in the rural sector. If much of the theoretical debate has been conducted at a very high level of abstraction, at various stages attempts have been made to ground the theories by relating them to empirical material on the differentiation of the peasantry. Although the most used indicator is land-size, they have adopted a variety of alternative indicators to quantify the differences between classes: the value of agricultural output, capital expenditures, area under cultivation, number of livestock, total value of means of production, use of wage labour in production or some combination of the above (See Cox, 1986).

Lenin (1984) in "The Development of Capitalism in Russia", uses the concept of social differentiation to refer not just to inequality in landholdings (which he

termed "simple" differentiation) but to the process of formation of the essential classes of capitalism: the bourgeoisie and proletariat. He developed an indicator of differentiation based not just on inequality in landholdings but in terms of concentration of the means of production. He does this by demonstrating that there is a strong correlation between access to any one of the essential means of production and access to the others: it is those households with access to more land which also have more land sown to crops, more draught animals, more implements, and use the most advanced farming techniques.

Once Lenin had established that rural areas are characterised by concentration of the means of production, he examined how commodity production is related to the formation of capitalist relations. This he does by demonstrating that the well-to-do peasantry relates to land as a commodity (they are the ones who rent out land and purchase additional land) and that the bulk of their production consists of commodities for the market (less than half of their production is required for subsistence consumption). The poor peasantry, in contrast, has to rent land from others and sells minimal amounts of agricultural commodities.

However, the essential contrast between the poor and well-to-do peasantry is in terms of their relation to wage labour. Commercial cultivation among the well-to-do peasantry becomes capitalist farming when it is based on the hiring of wage labour. And it is the poor peasantry that has to sell labour power. Capitalist relations are the end of this process: differential access to the means of production is what allows the well-to-do peasantry to join the agrarian bourgeoisie, while insufficient access to the means of production among poor peasants compels their transformation into a rural proletariat. Considering Lenin's proposition, in which "unequal access to land and means of production is the basis for the formation of capitalist class relations in rural areas", I believe that is worthwhile attempting to classify the sampled population into social classes, in a step beyond the simple size of farm categorisation.

This classification is carried out with the aim of identifying the class-status of a household on the basis of a criterion for the empirical classification of peasantry originally suggested by Utsa Patanaik (1988). The key criterion for classifying the different farms and the data to be used as indicators of them, are related to the tendency within a given production unit to use family labour or hired in/out labour¹³. This methodology is based on Patanaik's labour-exploitation index, which seeks "to 'capture' the class-status of a household, essentially by looking at the extent of use of outside labour or conversely the extent of the family working for others, relative to the extent of self-employment (Patanaik, 1988:304). It is defined for a given production unit as the ratio between the use of outside labour and hired out to the total of family labour, as follows:

$$E = \frac{(H_i - H_o)}{F_i}$$

where:

F_i = Labour days worked by household workers (family labour) on the 'production unit' per annum;

H_i = Labour-days hired on the 'production unit' per annum;

H_o = Family labour days hired out to others per annum.

The classification of farms according to the labour-exploitation ratio (E) allows us to identify the farmers' class-status. Only 322 farms were included in this classification as 18 farms presented data problems for the estimation of the labour exploitation ratio. This "class-status" classification of units of production was operationalised using the following measures:

Landlord Class - Primarily employing others. No labour in self-employment and large-scale employment of other people's labour. It includes not only large landlords of the traditional type living off rents, but also smaller owners for whom

¹³ As put by Bernstein: "a clear distinction has to be established concerning differentiation in the sociological sense - indicators of inequality stemming from a concept of 'social class' that see the latter in terms of various ranked scales of privilege and deprivation, and differentiation in a materialist sense which poses class in terms of the social relations of production." (1979:430)

other sources of income are more important; for instance, absentee city people with urban occupations. The net labour exchange ($H_i - H_o$) is positive and family labour is equal to zero.

Farmers - Primarily employing others. Hired labour is positive and greater than family labour. They are capitalist entrepreneurs in agriculture, who as a rule employ several hired labourers and are connected with the peasantry by the manual labour they themselves perform on their farm or by more direct farm management. Net labour exchange ($H_i - H_o$) is positive and greater than FI.

Upper Peasant - Primarily self-employed. Less employment of hired labour than family labour. Although there is hiring of labour in and therefore exploitation of other people's labour, the employment of family labour predominates in the labour process. Net labour exchange ($H_i - H_o$) is positive and smaller than FI.

Lower Peasant - Zero employment of others and in some cases working for others ('off-farm' employment). The labour process is strictly commanded by the family members and there is no employing of other people's labour. They have adequate resources to allow full employment of family members or they need to work for others (to a smaller or greater extent than self-employment) as wage-labourers in order to obtain a subsistence income. Net labour exchange ($H_i - H_o$) is zero or negative and family labour is greater than zero.

Table V.16 reports the distribution of farms by size category, in 1980 and 1985, and their household class-status in the last panel wave. Ferreira (1984) and Patanaik (1988) pointed out that the classification by area is not itself a good indicator of class differences because factors such as soil quality, cropping pattern, and intensity of cultivation vary independently of farm size. However, the two criteria for grouping are associated as we would have expected. The data distribution within farms sampled (a two-way table grouping farms by both criteria with the application of the chi-square test of association) shows a high association between the two alternative criteria (in both years). Although the micro, small and medium farms contain the entire range of class status, the

proportion of labour-hiring farms (farmers and landlord) tends to rise with increasing farm size.

Moreover, these results could mean that the so-called "small farms" are not a homogenous group, in which hired labour is not used to a significant extent', in contrast to the conclusions of Dias (1978:181), in his analysis of agriculture in the Brazilian North-East between 1920 and 1970. For him, "the ownership of land by a large number of dwellers did not result in the privileged stratum among the peasants who could appropriate surplus" and that "the limitations on production imposed by the family's own productive capabilities and the conditions under which this has occurred [...] have further restricted the emergence of any dominant group among peasants". The results of our analysis are closer to those observed by Silva (1984) in his analysis of small and medium producers in Vertentes¹⁴, in which he stressed the high incidence of agrarian capitalist relations of production among the landowning population.

In our analysis of producers whose area was less than 50 ha in the Northern Agreste, we find two basic results: first, although most micro farms are essentially family production units (60 per cent of them), production relations within the small units of production in the Agreste of North-East Brazil are not uniform or homogeneous as several studies have claimed; and, secondly, the incidence of capitalist production relations in small farms (up to fifty hectares) is relatively high (agrarian capitalists make up more than a third of the sampled small farmers). In addition, another third of these farmers also relies on outside hired labour, and thus may constitute what Marx (1971:779)¹⁵ called a "nursery school" of "prosperous peasants" or near capitalists.

¹⁴ Vertentes is one of the municípios sampled in the surveys which provide the panel data analysed in this research.

¹⁵ Cited by Silva (1984). For Silva, Marx wrote about the development of "prosperous peasants" (whose exploitation of agricultural wage-labourers allowed them to accumulate a certain amount of wealth and become transformed into future capitalist) in a not altogether different context of his analysis. In the context of Marx's analysis, the rise of a "nursery school of capitalist" was "conditioned by the general development of capitalist production beyond the countryside".

TABLE V.16 - NORTHERN AGRESTE: DISTRIBUTION OF FARMS BY SIZE AND HOUSEHOLD CLASS-STATUS CATEGORIES (row percent), PANEL DATA, 1980/85.

Farm Size	Lower Peasant	Upper Peasant	Farmer	Landlord	Total (100%)
	1980				
Micro	60.5	27.2	7.4	4.9	81
Small	35.7	33.9	20.9	9.6	115
Medium	12.5	33.9	40.2	13.4	112
Large	-	7.1	50.0	42.9	14
Total	32.3	31.1	25.5	11.2	322
	1985				
Micro	60.0	26.7	5.6	7.8	90
Small	31.3	34.8	27.0	7.0	115
Medium	13.2	34.0	38.7	14.2	106
Large	-	-	45.5	54.5	11
Total	32.3	31.1	25.5	11.2	322

Source: POLONORDESTE / PIMES-UFPE Surveys

The data analysis in the previous section showed that access to land is highly correlated with access to other means of production. However, there is no evidence here for the existence of a process of differentiation involving increased concentration of landownership and the ownership of agricultural capital more generally and losses of land by smaller landholders. This longitudinal study does not provide evidence supporting the conclusion that the concentration of landholding and capital, as a result of development of capitalist agriculture, is taking place. Although the data is sufficiently strong to support Lenin's proposition that unequal access to the means of production is the basis for the formation of capitalist class relations in rural areas, relations of production themselves do not explain agrarian change and rural differentiation.

What Deere and De Janvri (1981:341, 349) have termed the Leninist life cycle of social differentiation is quite different from that envisaged by Chayanov.

According to Chayanov (1966), inequalities of farm income and farm size among

Russian peasantry were not socially determined but could be explained in terms of demographic differentiation, which occurs through the life cycle determined by family size and the consumer / worker ratio change. Over the family life cycle, the consumption requirements of the household first increase; only later when children start to work and the number of family workers increases, can the household begin to acquire more land and capital to increase output. Thus, for him, the main cause of differences in farm size is the demographic process of family growth as its age, and hence, size increase, not social factors causing households to become capitalist or proletarian. Farm size expands and contracts as the household accumulates and loses children, and the resulting inequality in the distribution of income and farm size is reproduced in a static fashion from generation to generation. The Leninist approach allows for life cycle of social differentiation where transitions occur among social classes positions in the life history of a peasant household.

Within the Leninist approach, there are peasant processes of expansion and contraction in economic activity not only in response to endogenous factors, but primarily as a product of the interaction of peasant units of production within the wider economy. Bad or good harvests, unfavourable or favourable conditions of trade, the differential adoption of improved cultivation practices are some of the reasons that may allow individual farmers to lose or acquire more land. Peasants unable to compete in the market with more advanced farmers may be forced to abandon their holdings while those farmers who are successful may increase the hiring of wage labour. The intervention of the State in markets¹⁶ or in the form of rural development programmes, could also give support to capitalist or peasant

¹⁶ According to Bates (1981:3), farmers' real incomes depend upon their performance in three major markets: the first is "the market for agricultural commodities" in which farmers derive their revenues from sales; the second is "the market for factors of production" in which farmers incur costs; the third is "the market for consumer goods" in which farmers buy commodities from the urban-industrial sector. The real value of their incomes is, thus, determined by their revenues from the sales, by their costs of production and by the prices they must pay for goods manufactured in the city. For Bates, "agricultural policy consists of governmental actions that affect the incomes of rural producers by influencing the prices these producers confront in the major markets which determines their incomes".

farmers altering the "natural" conditions of the agricultural production in favour of one or another organisational form.

The analysis of the considered "opposing" models of Lenin and Chayanov provides many insights which are relatively independent of their general models and not incompatible with other, but rather highlight different process which may simultaneously at work in agrarian societies. The analysis of peasant family demographic cycles, for example, helps us to identify mechanisms of cyclical (nonpermanent) mobility which are responsible for the observed distribution of owned land or farm size at given times; the Leninist focus on the mechanisms of "accumulation of advantages and disadvantages" aims to identify and understand the more permanent, nocylical component of these inequalities and their changes over time¹⁷.

Pointing to the rigidity that characterizes many theoretical formulations of the "agrarian question" and rural differentiation, White (1989) stresses the need for flexibility in the analysis of concrete situations. There is no universal form or definition of rural differentiation whose dynamics or "laws of motion" can be grasped through abstract formulation. In the analysis of concrete situations, he suggests that a distinction be drawn between the process of differentiation itself and various aspects of that process - namely the causes, mechanisms, and indicators. The process of differentiation itself concerns shifts in patterns of control over the means of production and the accompanying social division of labour. External forces and historical political contexts, as well as local historical experience of agrarian struggles, he argues, can exert a great influence on these mechanisms or forms of differentiation. The situation described in Northern Agreste case study presents us with a situation in which it is certainly possible and useful to speak of local processes of socio-economic differentiation. The analysis of concrete situations of agrarian change leads to the recognition that economic and social changes occur in actual societies with their own

¹⁷ Few analyses have been attempted to disentangle the coexisting processes of cyclical and permanent mobility, which is indeed a technically complex task. See for instance Deere and De Janvry (1979) and Cox (1986).

configurations of political forces at local and higher levels, with all kinds of complex and sometimes conflicting processes at work both within and beyond the rural sector.

4. Conclusions

The aim of this chapter has been to present an overview of characteristics and trends in the farming activities of the Northern Agreste over the period of IRDP implementation. This analysis of the project's impact at the farm level permits a clarification of the role of the State and its project-based policies on rural development as a stimulus to modernisation, as well as for the reproduction and preservation of the small farm sector. Although some of the changes may be quantitatively measurable, these changes involve processes that are essentially qualitative rather than quantitative. The increasing role of State agencies in the countryside has given farmers access to factors and inputs and created opportunities for small farmers to respond positively to measures designed to raise market output. The results of this analysis seems to suggest that rural development projects could result in strong public support for the small farm sector. Let us now look the main trends observed.

A first trend perceived in the evolution of farm structures is a decrease in the size of the production units. However, the tendency towards declining average farm size and the increase in the proportion of micro establishments does not reflect fragmentation of "microfundia" farms. On the contrary, there was a reduction in the incidence of landlessness and most smaller farmers were able to retain access to land. Furthermore, as a result of partitioning of some holdholdings and the reduction of speculative investment in land, the decrease in the average size of production units occurred mainly in the larger categories of farmers.

The availability of capital items by categories of farm gave us a rough indication of the development of productive forces and of farmers' investment patterns in

structures, equipment and animals. Despite a pattern of ownership biased against smaller farmers, according to the indicators chosen, micro producers have prospered, relatively speaking, compared with larger farmers. There was an increase in the number of "micro" production units with masonry houses, wire fences, installations and improvements, while in the other categories there was a trend towards a reduction in the proportion of farms with structures incorporated onto their land. There was also an increase in the number of micro and small farmers with access to electricity, water storage and irrigation on their farms. Although ownership of agricultural capital remained biased against smaller farmers, there is no evidence of a process of differentiation involving increased concentration of capital.

The level of technology on Northern Agreste farms in general terms is very low. The relatively low level of mechanisation is related to the considerable fragmentation of small units and the stock raising predominance on larger farms. The adoption of mechanisation and use of modern inputs is selective in relation to categories of farm and this situation did not change substantially throughout the five years of the project. Except on micro farms, where there was a relatively important increase in the use of tractors, chemical fertilisers and improved seeds there was, as a rule, a reduction in the proportion of farms using tractors and inputs bought on the market. This reduction can be explained by the fact that the high prices of industrial inputs play a central role in limiting farm modernisation, especially when the relatively price of agricultural products does not make such investment worthwhile.

In spite of the general reduction in the number of farm herds, the analysis of farmland use showed that livestock, in the form of pasture, was spreading throughout all categories of farm. Although there was an expansion in the area of planted pasture on large farms, it was in this category of production unit where the decrease in the number of cattle was more evident. Micro farmers expanded their area with both native and planted pasture as well as increasing their herd size.

In general, expansion of the area devoted to crops and planted pasture is a clear trend, suggesting that a more intensive use of land was taking place on all categories of farm. The analysis in frequency of planting shows a trend in that, as the unit decreases in size, the proportion of crop land increases. Thus, empirical data confirm the general theoretical postulates that the smaller the area, the more intensive the cultivation. Trends in the product mix, were deduced from data on the evolution of the share of each category of farm in the production of main crops. As was expected, medium and large farms were responsible for the bulk of dairy production. However, considering the proportion of land operated by micro and small farmers, the relatively large share of crop production under their domain was surprising. They are important not only in the production of basic food staples, but also in the production high-value crops.

All categories of farm produce food crops either for their own consumption or for the market. Data from the panel study make it possible to assess the overall growth of small farmer gross output over the period of project implementation. This data also allows us to see a clear trend in the transition from subsistence to market production of smaller farms. There was an increased diversification of agricultural production, and the increased sale value of several fruits and vegetables are very representative of small farm commodisation. As this chapter demonstrates, a large proportion of total agricultural output marketed among the sampled farmers originates on farms under fifty hectares. Although the participation of small farms in stock raising is considerably lower than in crop farming, livestock production, cattle and small animals play an important economic role. Besides its importance as food for domestic consumption, it also provides a commodity for sale in regional markets. To own animals is a form of "savings" for situations of crisis. On the basis of the analysed data, the tendency of some to regard small-scale producers as subsistence growers, who support themselves but have little excess to sell, is largely incorrect. Many small producers have become quite integrated, supplying markets with food crops as well as with high-value crops.

In sum, State intervention in the Northern Agreste through POLONORDESTE seems to have favoured small farmers at the expense of the traditional landed elite. State intervention provided to the small farm sector access to technology, capital, market facilities and infrastructure, resources which historically have been appropriated by the large farm sector. In this way, the causes of their relative success in engaging in commercial farming might be linked to their access to rural credit, the use of effective extension services operating in some of the project areas or the adoption of more productive techniques. Another reason was their ability to use alternatives open to them in the market. Their replication of the strategy used by large farms, that is, the production of more lucrative crops, has shown that, with their "own-price" response, they were able to defend their incomes against the overall adverse market conditions for food crops. Thus, the intervention of the State has brought opportunities and resources for some small farms leading to the emergence of a privileged group in which hired labour is used to a significant extent. If it is true that the outcomes of State intervention are influenced by choices of local actors (as will be discussed in the next chapter), we cannot ignore the fact that agrarian processes must be understood in the context of larger political and economic forces. The outcomes of State intervention would be different in the context of different kind of regime with another mode of political management.

CHAPTER VI – PUBLIC POLICIES AND PRIVATE CHOICES: POLITICAL AND ECONOMIC INTERACTIONS AT LOCAL LEVEL

1. Introduction

The central aim of the POLONORDESTE strategy was to undertake *institutional* changes, which would improve small producers' access to credit and modern inputs as part of an overall drive to accelerate their modernisation and integration into the market. Although the POLONORDESTE programme susceptibility to the politics of patronage and costliness and inefficiency of development agencies at the state and regional level (discussed in chapter IV) we have enough evidence to argue that the project represented a supportive step for improve small farming activities in the Northern Agreste region (as described in chapter V).

The main objective of this chapter is to make explicit the role of the State and its institutional framework as a catalyst for the reproduction and preservation of the peasantry and to examine some of intended and unintended political and economic consequences of State intervention at local level. It identifies the limitations of the central State for implementing programmes, and the capacity for autonomous choice on the part of local actors, both public and private. In so doing, this study argues that, to understand patterns of rural development, scholars should give greater weight to the importance of these choices in shaping the impact of State intervention upon the structure of local societies. However, if is true that the State intervention is influenced by local processes, it is not simply a reflection of them.

This chapter therefore represents an attempt to look at the process of development as the interaction of public and private choice. It attempts to demonstrate how the process of public choice can expand or diminish private choice. It suggests, furthermore, that in all circumstances the political process will structure private choices through its influence on key economic and political institutions.

This chapter is divided into three sections. The first section will look at the impact of State patronage on local power networks. That is to say the interaction between State apparatus, local powers and farmers in the Northern Agreste. The second section will look at the role of the State institutional framework in creating opportunities for small farmers to engage their own agenda for integration into the market economy and to enhance income options. The final section will examine household livelihood strategies in the face of increased commercialisation and State intervention.

2. Public Policy: State Patronage and the Pluralization of Power

POLONORDESTE was designed specifically to overcome the historical lack of access of the small-farm sector in the Brazilian North-East to credit to finance investments and the purchase of agricultural inputs, and to complementary infrastructure such as water and roads. However, State intervention has also important nonagricultural impact on the local area. It has pluralized power at the municipal level, breaking the former fusion of wealth and power in the hands of the local landed elite.

For the first time in the history of electoral politics in the North-East there was a large rural constituency that politicians needed to start courting directly – rather than indirectly through programmes and subsidies benefiting powerful landowners who, in turn, could deliver the votes of their large captive peasants. For a variety of reasons¹, candidates were no longer able to count on votes being delivered to them by the large landowners on whom peasants were dependent for work, credit, land and welfare assistance. One important reason was the displacement of rural landowner as political boss by more urban leadership figures such as the town merchant, doctor, lawyer, factory owner, etc. After these candidates were elected, they concerned themselves with

¹ See for instance Lavareda and Sá (1986).

distributional issues regarding the rural population. As a councilman from Caruaru stated:

"I work in a region of small farmers. I help them through my influence in government agencies such as EMATER, CISAGRO or even the Secretariat of Agriculture of the state. I am given this support to them because I was elected with their votes. I need to show that I am work for them. When election time-comes, I can go there and show what I have done. By helping those farmers I hope to convincing them they choose the right candidate."

This changed political atmosphere represented a fertile ground for a programme like POLONORDESTE. And, indeed, the small-farmer emphasis encountered more sympathy among government bureaucrats, local politicians and state governors, in comparison to previous programmes like PIN and PROTERRA. I want now to describe some of the ways in which power has been pluralized at local level.

2.1. Employment

The first way was through State employment. To meet the project's objectives, the concerned agencies expanded the number of local offices, employees and degree of bureaucratisation. Several hundred people were employed by these various agencies in the micro-region. The significant increase in non-farm sources of income was an important component for the increase in incomes for small farmers and landless labourers. Thus, State intervention in rural areas was increasing and creating new job opportunities, helping to retain the rural population². For instance, in both health and education components, local people were trained to provide services to their communities.

While direct statistics are not available, observation suggests that most of the primary teachers were women as were many of the health post attendants. In spite of the fact that neither of these jobs provides an attractive income, women's role in providing these vital services gave to them recognition and

²As pointed out by Cavalcanti (1982:269), "if this situation does not solve the problems of the agrarian structures, it re-inforces the existing peasant household strategies of combining agricultural and non-agricultural sources of income".

status within the community. For instance, to be a teacher is one of the main aspirations for the female population in rural areas. Being a teacher provides a higher status, when compared with other types of occupations, and it is considered a good job for women, since they can teach near home. Despite the low wage, their income can be a source of help for agriculture or the family budget, especially in harder times.

Moreover, the recruitment of most officials from the village itself gave to some of them a sympathy for small farmers' problems and the typical local bureaucrat was no longer an instrument of the local landlord. There were also local officeholders who in economic terms were members of the small farmer strata and who have identified interests in common with them. Thus, patronage is "democratised" at the local level as public goods are diverted to favour some rural poor.

On the other hand the expansion of State employment has increased the extent of State patronage and political manipulation. The large number of bureaucratic positions in the community has been filled through political links. For instance, to get a job as a teacher it was necessary to have good political relationship with the political boss, or at least, not to be considered a political enemy, nor to be known as having voted against him in the last election. Francisca, daughter of a peasant owner of a ten hectare plot, is a rural teacher and headmaster of a village primary school in Glória do Goitá. She commented:

"I stay away from politics. I am so frightened because there were cases of teachers being dismissed because the elected mayor was from another party. When the mayor changes, if the teacher protest, she can get her job back. I was never pressured by mayors because they know that I do not like politics and I give my support to all elected mayors. I do not care for their party. In this way, politicians go by and I stay in my office. I win through silence."

According to Cavalcanti (1982:158), this is one of the reasons why the majority of peasants do not like to be involved in politics. They feel that they have little to gain but a lot to lose if they declare themselves for or against a candidate. The frequent political coalitions make them prefer to be cautious about politics

because those who are on one side at the present time could be on the other side in future.

2.2. State Visibility

In addition to employment there is the increased sheer visibility of the State. As we have seen in chapter IV, in the implementation of its rural development policy, the State has allocated resources in a way that has been visible politically. As we can see from the photos included in this chapter (see plates 1 to 5), the massive intervention of the Brazilian State was visible in the area during project implementation and the extent of bureaucratisation was considerable in the Northern Agreste. Linked to national, regional and state level institutions responsible for the planning, execution and supervision of the project, there were many organisations each of which was responsible for one of the project components. The amount of these transfers to rural areas have created at least an impression of concerned government. Thus, rural development intervention lent legitimacy to the authoritarian State and contributed to the building up and maintenance of political support for the regime and to defusing antagonism in the countryside. As a result, Northern Agreste peasants do not have a pathological mistrust of the State. Often the peasant considers the State a source of help and many regard the government as a friend. For the landless and peasants who own only a small plot, the State is the only source from which they were receiving help. To achieve economic mobility the "enterprising peasants" find in the State the financial support they are looking for. Therefore, it seems that the real effective economic and political links of the group of more progressive peasants or even of the mass of poorest peasants and landless workers are with the State rather than with the traditional patron.

Data on information and access to POLONORDESTE services shows that the project soon became well known by farmers (see table VI.1). In the first project year, almost 60 per cent of the farmers had heard about the existence of the

TABLE VI.1 - NORTHERN AGRESTE: ACCESS TO POLONORDESTE'S SERVICES BY SIZE CATEGORY OF FARMS (Row percent), PANEL SAMPLE, 1980/85.

Farm size	Unknown	Heard about	Service users	Total (%)
	1980			
Micro	63.6	36.4	-	88 (100)
Small	37.4	58.5	4.1	124 (100)
Medium	25.2	26.6	12.2	115 (100)
Large	7.1	71.4	21.4	14 (100)
Total	38.8	54.7	6.5	340 (100)
	1985			
Micro	18.2	76.1	5.7	88 (100)
Small	9.8	69.1	21.1	124 (100)
Medium	10.6	65.1	23.9	115 (100)
Large	-	78.6	21.4	14 (100)
Total	11.8	70.1	18.0	340 (100)

Source: POLONORDESTE/PIMES-UFPE Surveys

project. In the 1985 panel wave, this number increased to almost 90 per cent of farmers. However, according to the farmers themselves, effective access to project goods or services remained restricted to a minority. Nevertheless, it is difficult to give precise numbers on small producers benefited by the project. Because of its multisectoral approach it is necessary to identify the characteristics of the specific intervention and relate them to benefit distribution among particular groups.

Most of the services provided by the project were already offered in some of the project areas and the project action consisted of extending the service to areas previously unaffected, improving the service offered and redirecting these actions to small farmers. Nevertheless, the amount of support given to small farmers through State intervention in agriculture was probably much less than

their needs demanded. From the farmers' perspective, the main form of support for agricultural activities they received from the State was credit and rural extension. But the proportion of farmers' answers on the support they received by the project shows that the State intervention was not so widespread as was expected.

The growing role of the State in rural development policies and the presence of its apparatus in the project area meant also the appearance, on the local scene of a new power holder. "The project leader, the man who directs the execution of the project, is an intruder who is going to compete for power with the established elite" (Galjart, 1967:337). With the rise of systematic State intervention in the rural sector the former landed elite has lost its role as an agent of the State and other external organisations. The roles are now performed by people integrated into the State apparatus in a direct way, professional bureaucrats. Thus, traditional patrons have been replaced by specific patrons operating from within positions of authority in official bureaucracies and organisations. For example, dedication by extension agents to the small farmers cause contributes to the dislike of some of the extension service by local elites, which is transmitted by their complaints to capital-city politicians and public sector management. This arises from the fact that "apolitical" agents replace local politicians in the distribution of politically valuable benefits.

2.3. Collective Action and The Trend Towards Privatism

A further aspect of the increase in State patronage was its impact on collective action. The authoritarian and technocratic nature of the Brazilian regime after 1964 was evident in POLONORDESTE's lack of concern for beneficiary participation. Project benefits reached the local level in the guise of State patronage or government largesse, not as goods and services claimed by the targeted population. As was shown in chapter IV, the POLONORDESTE resulted from discussions and studies carried out in Brazilian and in state-level capitals. Planners at the state level, with assistance from the World Bank,

followed guidelines established in Brasília and gave little thought to the concerns of the local community. Although lack of experience with encouraging participation, as well as a long tradition of top-down planning and implementation, were generally pointed out in explaining these failures, it was clear that the Brazilian political regime had a vital interest in limiting the extent of peasant participation and in controlling them. As Grindle (1986:170) stressed,

"When they argued for participation, they meant organising peasants to benefit effectively from the goods and services offered and to monitor the delivery and use of resources. They did not intend for the scope of participation to go beyond the local level and demonstrate to the State and society more generally that peasants should be taken into consideration as important actors in national development".

Effective rural organisation and participation implied a redistribution of political and economic power and the Brazilian political context, during the military government, strongly suggests that such an alteration was not likely to come about as a result of officially sponsored activities in programmes like POLONORDESTE. For instance, the State attaches importance to co-operative development because it facilitates the centralisation of State control of resources and production in these communities. However, to organise co-operatives was difficult because factional disputes and interests always threaten to undermining them. Furthermore, the development of co-operation through associations among rural inhabitants has not received much support from the peasants themselves³.

In fact, only three of the six municípios selected in this study had rural co-operatives (Capoeiras, Caruaru and Cumaru). As shown in table VI.2, only around 30 per cent of farmers are associated with a rural co-operative. Moreover, their links to co-operatives are related to farm size. The larger the farmer, the higher the proportion of farmers associated with co-operatives. While 64.4 per cent of large farmers were associated with co-operatives in both panel waves, only 12.5 per cent of micro farmer were associated in 1980 and

³ As pointed out by Cavalcanti (1982:169), "the existence of different rationales among peasants, as a result of their internal differentiation, makes them aware both of the advantages and disadvantages they can get from co-operation imposed on them from above".

TABLE VI.2 - NORTHERN AGRESTE: PERCENTAGE OF FARMERS AS MEMBERS OF CO-OPERATIVES, PANEL SAMPLE, 1980/85.

Farms	Members of Co-operative	
	1980	1985
Micro	12.5	8.0
Small	25.2	22.8
Medium	47.0	45.1
Large	64.3	64.3
Total	30.9	28.1

Source: POLONORDESTE/PIMES-UFPE Surveys

this number was reduced to 8 per cent in 1985. A rural technician confirmed this fact:

“There is a co-operative in this town. But it is not a co-operative of small potato producers. It is a co-operative of better-off farmers and it attends a larger region. For example, it sells pesticides and fungicides that even are used here.” (José Luiz, agricultural technician, Caruaru).

Data on farmer membership of labour unions also suggest that rural unionisation has been weakened in the area. There was a reduction from 38.5 per cent to 32 per cent in membership of labour unions (table VI.3) among the sampled farmers. According to an agricultural technician, the local Labour Union does not have an important political role. As he commented:

“In my opinion the Labour Union is inactive. The only service that it provided was to bring to the village a dentist and an optician. For this, the members of the union received a discount for their own and their family consultation” (José Onildo, agricultural technician - Cumaru).

This illustrates the weakness of local political organisations. Small farmers' common interest was not sufficient to induce participation in collective action. According to the rational peasant school, it is presumed that peasants prefer to pursue their private interests when the results of their participation in collective organisation only result common advantage. The president of the “Sindicato dos Trabalhadores Rurais de Poção”, explains why this situation occurs:

"The 'Union' is weak because people are not interested. They do not have an appreciation of its importance for the worker. If they had such appreciation we could organise to force the government to provide what we need to improve the countryside. However, if the 'Union' does not have something to offer to them individually, peasants are not interested". (Francisco Caetano, owner of 22 hectares. His farm is worked by him and his 7 married children, who live on the farm with their respective families.),

This statement illustrates the "free rider" problem, in the sense that when they expect that the only results of contributing to the common goals are common advantages, peasants may leave the contributions to others and expend resources in other ways.

TABLE VI.3 - NORTHERN AGRESTE: PERCENTAGE OF FARMERS AS MEMBERS OF LABOUR UNIONS, PANEL SAMPLE, 1980/85.

Farms	Members of Labour Unions	
	1980	1985
Micro	52.3	47.7
Small	36.6	33.3
Medium	31.3	20.4
Large	28.6	14.3
Total	38.5	32.0

Source: POLONORDESTE/PIMES-UFPE Surveys

This lack of interest in collective organisation was occurring at the same time as the empirical data suggested that "patronage" and "factionalism" had not been dying in the region during the project years. My own observations from the project area and the publication of a number of studies of local politics from the seventies (Gross, 1973; Martinez-Allier and Boito, 1977; Hoefle, 1985) along with other evidence relating to elections in the 1970s and 1980s, and the discriminatory use of State funds and prerogatives in order to increase electoral support (see chapter IV), has revealed the continuing vigour of some of the practices associated with clientelism in the past.

The growing role of the State apparatus in implementing its rural development policy made it vulnerable to manipulation by the dominant local factions in

villages and small towns. This fact must be linked to both the paternalistic character of the intervention, in which intended beneficiaries exercised no influence over activities ostensibly developed on their behalf, and to the brutal competition among politicians for access to all external resources entering the region⁴. The disbursement of funds for roads, dams, and school construction was clearly manipulated to benefit allies of the government in power. In contrast to agricultural services, the results of infrastructure are easy to see. Politicians support infrastructure projects more than they do agricultural ones because they see a beginning and an end. A technician from the Technical Unit explain how this occurred:

“Sometimes the governor sent messages with 'give priorities' to solicitation of location of infrastructure stemming from the majors... In the case of (the component) 'roads' the mismanagement stem from states secretaries and deputies who had farms in the countryside.”

However, as a public good, rural infrastructure could benefit everybody indiscriminately and its consumption could not be limited to a particular group. Several factors may help explain roads popularity among rural dwellers. Roads are seen as providing benefits to all members of the community. Transport costs and time for getting the town are greatly reduced, and increased mobility for the individual also contributed to better working of the labour market. Often a road generates a daily or weekly transport service, then the farmers' isolation is strongly reduced.

Peasant lack of involvement in national politics and their cautious activity in local-level politics (which is a non-party and personalised activity) are seen to be perfectly rational within the objective circumstances in which they live and work. This political behaviour is also related to the apparently contradictory authoritarian and paternalistic nature of the Brazilian State during the military regime. Although this context accounts for the absence of organised peasant action in the face of their problems, there are other reasons for the apparent

inability of peasants to act together for their common good or for any end transcending the immediate material interest of their family⁵. The individual's attachment to the family must be the starting place for an account of the Northern Agreste peasants' political behaviour. The hardships of their lives have forced them to devote almost all energy to their own survival.

The pervasive clientelism that surrounds many of the rural poor has reinforced this tendency to focus on interests of restricted scope, not on collective national or even regional goals. Small farmers often consider petitioning with local politicians or bureaucratic officials for small scale benefits as the only realistic way to obtain gains. I can personally recall one morning spent in the office of a town mayor during which a stream of applicants looking for benefits passes through. Among the benefits sought were: baby's clothes, money for rent, a job, money for medicine, funeral expenses and much more. In this way, they compete (rather than co-operate) with other people requesting similar favours for themselves. As one extension agent commented:

"Here political corruption ("politicagem") is very great. The use of public resources to benefit specific individuals is common. If the farmers have specific demands, "good" politicians try to give the support. However, there are some politicians who only do things in exchange for votes. For example, if they have agricultural inputs at their disposal, they only go to their supporters (Jeová Lopes, rural extension agent – Capoeiras)

In contrast, efforts to exert powerful pressure through collective organisation would threaten local or regional politicians or their agents and therefore risk repression. Clientelism has thus helped to maintain rural poor divided and made mass mobilisation difficult. Moreover, through the conferring of divisible and particular benefits, the State has allowed peasants to seek public policies as a matter of personal self-interest. As a result, and because these small farmers

⁴ It being often alleged that "anti-poverty" activities in the North-East have the characteristic of an "industry" seeking to receive funds on the basis of the needs of the poor, but distributing resources in response to quite different concerns.

⁵ According to Bates (1995:36), families constitute a clear example of institutions that offer "generalised reciprocity", which means "institutions in the developing world in which people invest resources, not in expectation of specific recompense, but rather in an effort to create a general fund of goodwill that can subsequently be tapped should a specific need arise".

lack formal organisation to act as a group, they were able only to find private alternatives to the collective problems that they face.

3. Public Policy: The Economic Impact of State Patronage

If the political legacy of the project at local level can be seen to have been somewhat ambiguous so too can the economic impact. There are undoubtedly from the outset fundamental weaknesses in the ability of a strategy of small farm modernisation to achieve its dual goal of increased staple food production and reduced rural poverty. In relation to this two observations can be made at the outset regarding POLONORDESTE. The first is that, in terms of supporting smallholders, it was much more successful than is suggested by the literature regarding such programmes. The second observation is that, while it was successful, it was not in the ways which state officials intended or anticipated and in this sense illustrates a central finding of New Institutionalism.

At the root of this ambiguity is the fact that there exist at least two major groups among small farmer in the region: those that have secure possession of enough land to allow, with suitable agricultural support, an on-farm income sufficient to give reasonable livelihood to the household; and those whose holdings are so small and insecure as to prevent, under current and envisaged technologies and relative agricultural prices, the generation of an adequate level of on-farm income. The first group may be seen as evolving, with suitable support, to form a stable “farmer” group; the second group may be not seen in this light.

According to one rural extension agent, there is a clear limitation for the project give support to a landless peasant:

“It is too difficult to help people without land. What is the incentive for a peasant to improve his situation if one year he is working on the land of Mr. Joaquim and in the next he is working on the land of Mr. João? Landlords do not like to give land in tenancy in consecutive years because they are afraid of the law. Today the law is very clear and rural workers know how to bring the landowner to Court when there is a breach of the law.”
(José Luis, rural extensionist – Caruaru).

However, the essential characteristics of the first group, those of “prosperous peasants”, are not to be found in the size of the land, herd, agricultural output or capital expenditures. The capitalist small farm is primarily an agricultural business in which the operator is a risk-taking manager. Although they also use hired labour to a greater or less extent, farmers with their families do most of the farm work or perform most of the managerial activities. As an extensionist agent stated:

“There is a clear difference among producers of potatoes, bananas or coconuts and those of producers of subsistence. They are interested in technology. They are also small producers, but they have better economic conditions and their standard of living is far superior to that of subsistence producers. Their income are not restricted to production of only one crop. They know different ways of making money”.

Thus, the differences in conditions and potential between these two groups absolutely require different approaches to providing assistance. In the following pages I will discuss farmers access and how they react to the agricultural components – research and extension, credit and marketing – the mainstay of POLONORDESTE economic justification as an project increase in agricultural production and productivity.

3.1. Technical Advice: Transformation of Technician into Broker

The level of productivity of the poor natural resources available to farming activities in most areas of the North-East is affected by the level of provision of relevant technical services to improve agriculture. The growth of agricultural output is attributable not only to the cultivation of more land and the expansion of irrigation, but also to new or improved technology. However, the generation of new technology is not a sufficient condition for increased farm productivity. The diffusion of the new knowledge among its potential users and its subsequent adoption by a significant proportion of them is a crucial element in the process linking the generation of new technology to increased farm productivity. An important public sector channel for disseminating agricultural knowledge is the extension service. Agricultural research and information services are undersupplied in the private market since information has public-good properties.

The provision of technical advice was a central aspect of POLONORDESTE. One of the interesting aspects of this was the transformation of the role of the technician in the implementation process.

Under the IRDP-AS-PE the extension system was expanded, and extension services were reoriented towards small farmers, where group extension was emphasised. As we can see in table VI.4, when first interviewed in 1980, 72.6 per cent of farmers had no exposure to extension agents. In 1985 this number was reduced to 57.8 per cent. There was a tendency for extension workers to concentrate on medium and large farms and this tendency was maintained in 1985. Although the fear that local elites and better-off farmers could divert programmes is well-founded, with the reorientation of the extension services toward the small farmers defined in the project and the expansion of the number of farmers receiving advice, there was clearly an increase in the percentage of

TABLE VI.4 - NORTHERN AGRESTE: ACCESS TO TECHNICAL ADVICE BY SIZE CATEGORY OF FARMS (Row per cent), PANEL SAMPLE, 1980/85.

Farm Size	No	Received advice	Receiving advice	Total (%)
		1980		
Micro	89.9	2.3	8.0	88 (100)
Small	69.9	12.2	17.9	124 (100)
Medium	64.3	13.0	22.6	115 (100)
Large	57.1	14.3	28.6	14 (100)
Total	72.6	10.0	17.4	340 (100)
		1985		
Micro	70.5	19.3	10.2	88 (100)
Small	48.0	24.4	27.6	124 (100)
Medium	43.3	28.7	27.8	115 (100)
Large	35.7	21.4	42.9	14 (100)
Total	57.8	24.5	23.8	340 (100)

Source: POLONORDESTE/PIMES-UFPE Surveys

micro and small farms with access to extension advice. However, the main point here is the possibility of change in agricultural production as a result of EMATER's assistance.

The panel data do not allow us to establish where productivity increases took place, and how yields increased in comparison to yields before the project or in non-project areas. Moreover, there are no reliable quantitative estimates of the impact on output and productivity. Experience has varied between different project areas and crops, and only case studies provide a satisfactory way of investigating this question. Nevertheless, discussing eight World Bank IRDPs, Tandler (1988) asserts that "the North-East 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."

Thus, the quantitative data available do not allow us to make clear connections between access to extension services and productivity-increasing practices. Nevertheless farmers, when asked about the importance of agricultural extension, always talk about its positive influence in the adoption of agricultural practices. As one farmer commented:

"I started to receive support from EMATER in 1983. Since then I made great improvements and I always asked for technical assistance. If the agronomist tells you how to plant a crop or to control a plant disease and you do not follow his advice, then you will have a bad production or you will not have a production at all." (Isaias Galvão, landowner 21 ha, from Poção).

The same sentiments were expressed by another producer, who works on 25 ha of his father's land inheritance (the land belongs to his mother and to ten brothers; eight of his brothers emigrated to São Paulo):

"The extension agents from EMATER gave much support to this community. Here a lot of cattle used to die. After an EMATER vaccination campaign no more animals died from this disease. The farmers also discovered the advantage of using selected seeds. [...] Nowadays it is easier to be a rural producer. We have more information and no one lost the harvest because of a crop disease. When I see EMATER written, I see a light..." (Severino Jurandir, from Caruaru).

Thus, based on farmers' statements, we can reasonably assume that there are several cases in which extension services are useful for improving farming practices and that these practices may have a positive effect on production and productivity. Tendler (1993), in her article about "Tales of Dissemination in Small-farm agriculture" in North-East Brazil, reports "a dozen" successful dissemination stories and cases of good micro performance in agriculture research and extension⁶. However, we cannot presume that the expansion of extension services had a positive impact upon small farm agricultural output in general.

The intended diversification from traditional subsistence crops into vegetable and fruit crops (shown in Chapter V) was achieved mainly because of irrigation in some project areas. However, due to the susceptibility of the region to drought it would have required a major effort to expand irrigated areas. Moreover, there were some limitations on EMATER proposals about what to do about the "low productivity" of small farms. EMATER technicians were only given a mixture of technical issues to be delivered out to small producers. They were technological package points, which should have resulted, in accordance with the knowledge of the technicians, in an increase in farm productivity. But apparently, this could not have produced a significant improvement in the regional economy because the project was not promoting a substantial transformation of traditional agriculture in general. In most of the cases, as an informant stressed, "it was merely transforming subsistence agriculture into an improved agriculture of subsistence".

⁶ Tendler (1993:1570) shows that, in the cases of disease or pest-combating campaigns, this "successful dissemination" involved an unusual combination of high subsidy and high discipline: (i) farmers received credit at low or negative real interest rates to buy certified seeds, fertiliser and pesticide applicators, and eradicated disease plants and put in new ones; (ii) the bank, the extension service, and the research agency carefully monitored the uses to which the credit could be put; (iii) in several cases the State held a monopoly control over inputs; (iv) the subsidy was terminated when the disease problem was overcome. As she stressed, "subsidised credit for a particular crop forced changes in cultivation practices and input use that would be automatically self-sustaining, once the subsidy and strong control were dropped in a later period".

At the end of four or five years of research, for example, the institution in charge [IPA-PE] reached the conclusion that you could not make a small area, of up to 5 ha economically viable by producing crops of low commercial value. According to an account by a former co-ordinator of the Evaluation Unit:

"... What was being done by the EMATER at that time was to take a small producer of maize and beans, in a seem-arid area, and to make that producer take an area of 1, 2 or 3 hectares and increase its production by 10, 15 or 20%. Then that only meant that he was going to produce slightly more maize and beans, so as that it could result in a small productive surplus... or in other words you would merely have more conditions to maintain the subsistence of that family. It was given the EMATER a quantity of resources to employ people, and to train people simply to take those packages to the farmers and the expectation of the project was that everything would be right, that it would work... but it did not work... there was no package, no crops, no productive system that would transform those small farms of subsistence into economically viable units."

Although observers of POLONORDESTE have rarely attributed to agricultural extension a significant improvement in production and productivity advances of small farms, these same observers asserted that, as a result of POLONORDESTE experience, extension agents are "less resistant today to working with small farmers" and that they are now "more sensitive to small farmer issues than they had been in the past" (Tendler, 1988:25). Moreover, anyone doing fieldwork in the programme area could see how important was the *broker role* played by extension agents between peasants and banks, landlords, traders, suppliers, and providers of government services. Although the agricultural advice provided by EMATER may not add up to a strong and sustained impact in regional agricultural development, there are enough of them to say that rural development projects present significant opportunities to increase diffusion of technology knowledge among peasants, helping them to maximise decisions about the allocation of resources in their farm activities.

3.2. Formal Credit and Risk Reduction

Institutional finance capital, principally subsidised credit, was the main vehicle of Brazilian agricultural modernisation after 1965, when official rural credit was established in Brazil. There is agreement that the massive volume of credit provided for agricultural modernisation allowed for changes in the technical

basis of production and productivity of various crops and regions. It has provided incentives to large farmers to expand land holdings, to invest in cattle and machinery, and to develop private irrigation activities. Agricultural credit policy was also the main vehicle for the expansion of livestock activities in the Agreste during the 70s. Subsidised financial credit has been given for the improvement of cattle herds, the expansion of pasture, and the acquisition of new breeding varieties, with negative effects on employment and the growth of food staples production (Ferreira, 1984, 143-145). Having said this there is reason to believe that State provided credit is not necessarily bad for smallholders. Indeed the POLONORDESTE experience shows that the transition from informal to formal credit mechanisms did benefit smallholders, although not in ways anticipated by the State.

A standard justification for State intervention in rural credit markets has been to improve the distribution of income. However, because unequal distribution of endowments translates into unequal access to credit, in general, State intervention in rural credit markets has failed to have a significant impact on rural income distribution and poverty. According to Eswaran and Kotwal (1989:182), "unequal access to capital provides a rationale for hierarchies in agrarian production organisations and, more generally, explains the emergence of agrarian class structure; it explains why the rich behave in a less risk-averse fashion than do the poor and, as a corollary, why they adopt new technologies more rapidly". However, to understand agrarian structure, it is essential not to abstract from the manner in which capital markets actually operate. The explanation of why credit is so inegalitarian must incorporate, as one essential ingredient, the limited liability of borrowers. Because rich farmers can offer assets of greater value as collateral than can the poor farmers, they will have access not only to larger amounts of loans but also at lower interests rates, since these loans would be viewed as being less risky.

Under the project, rural credit favoured medium and large farmers and discriminated against smaller producers. As shown in table VI.5, in 1980, 78.6

per cent of the largest farmers got credit from official banks while only 15.9 per cent of micro farmers had access to official loans. Despite the reduction in the number of farmers with access to official credit in 1985 (the number of farmers with this credit fell from 38.8 per cent to 31.8 per cent), there was an increase in the proportion of micro farmers with official loans (from 15.9 per cent to 19.3 per cent). However, it does not change the situation in that the percentage of the micro and small farmers remained inferior to the relative number of medium and large farmers included as beneficiaries of the credit programme.

TABLE VI.5 - NORTHERN AGRESTE: ACCESS TO CREDIT BY SOURCE OF FINANCIAL CAPITAL AND SIZE CATEGORY OF FARMS (row percent), PANEL SAMPLE, 1980/85.

Farm Size	No credit	Official loans	Others loans	Total (%)
		1980		
Micro	75.0	15.9	9.1	88 (100)
Small	55.3	42.3	3.3	123 (100)
Medium	46.1	47.8	11.3	115 (100)
Large	21.4	78.6	-	14 (100)
Total	55.9	38.8	7.4	340 (100)
		1985		
Micro	78.4	19.3	2.3	88 (100)
Small	65.0	30.9	6.5	123 (100)
Medium	57.4	38.3	5.2	115 (100)
Large	35.7	57.1	7.1	14 (100)
Total	64.7	31.8	5.0	340 (100)

Source: POLONORDESTE/PIMES-UFPE Surveys

The share of the value of official loans among categories of farms is also useful to reinforce this assertion. There was a substantial reduction in the total value of loans between the two years of the panel study (from almost US \$ 600,000 to a little more than US \$ 160,000), which reflects the reduction in availability of subsidised institutional credit between 1980-85 (see table VI.6). However,

medium-sized farmers had a major share of the credit, both institutional and non-official credit and, although there was a slight decrease in the share of medium farmers in 1985, this situation did not change much over the years. In 1985 they still received 47.6 per cent of official credit and 65.3 per cent of other loans. Despite an increase from 1.5 per cent, in 1980, to 5.5 per cent of official credit in 1985, the share of micro farmers in this budget was insignificant in both years. There was also an increase from 19.5 per cent to 31 per cent in the total value of official loans received by small farmers. Larger farmers lost a proportionally greater share of rural credit than any other category.

TABLE VI.6 - NORTHERN AGRESTE: SHARE OF THE VALUE OF LOANS BY SOURCE AND BY SIZE CATEGORY OF FARMS (column percent), PANEL SAMPLE, 1980/85.

Farm Size	Official loans	Other loans	Total
	1980		
Micro	1.5	5.1	1.6
Small	19.5	8.9	19.0
Medium	52.9	86.0	54.4
Large	26.1	-	24.9
Total (US\$)	100.0 (599,970)	100.0 (72,120)	100.0 (672,090)
	1985		
Micro	5.5	3.0	5.3
Small	31.0	27.2	30.7
Medium	47.6	65.3	49.0
Large	15.9	4.6	14.9
Total (US\$)	100.0 (161,140)	100.0 (14,178)	100.0 (175,320)

Source: POLONORDESTE/PIMES-UFPE Surveys

The small farmers' main alternative to government-funded agricultural credit was informal credit suppliers of inputs, friends, relatives, landlords and intermediaries in the commercialisation process. The reason small farmers borrow from other farmers, merchants and local moneylenders is that the costs

of making the transaction can be minimised for small loans. In the village, a farmer is known personally, so the information costs are low; little checking or paperwork is required to make a loan. Also, in these circumstances loans were typically granted without collateral. The agreement is made in a minutes and the money immediately provided. This contrasts with the time and travel costs incurred to complete complex institutional loan applications at a distant office and the uncertain wait for verification and approval.

The main informal credit mechanisms open to small farmers in the region were linked to tenancy arrangements (mainly sharecropping) and to marketing and commercialisation of the product. The principal mechanism for the latter was the "purchase" of a crop prior to harvest (known as 'compra antecipada' or 'compra na folha'). Under this system, an intermediary, generally a warehouse owner, independent trucker or other agent, purchases the crop for less than its estimated future price, 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. These intermediaries provide transport, grading, processing and other services that would otherwise involve additional time and money expenditures for the farmer.

However, most significant is the expansion of formal-sector credit supplied through the project in relation to usurious money lending (which among the sampled farms appeared to be less extensive than has been supposed to be). Official credit accounts for 90 per cent in 1980 and 92 per cent in 1985. Credit supplied through the project was mostly long term and for investment in land purchase, building flour mills or other farm structures. Some of the credit was for short-term consumption and cultivation costs, but both types of loans were sometimes used for other purposes, including house construction or to buy cattle and to cover emergency needs or small consumption expenditures. This does not necessarily mean that it was badly spent, especially since the extension service was directly involved in the preparation of credit proposals.

Even the apparent shift from permanent farm investments towards the purchase of cattle may have been in the right direction, since in the absence of irrigation, cattle, even on a small scale, are the most profitable enterprise. As stated by a former co-ordinator of the Evaluation Unit:

"Because problems of waiting for the agricultural cycle, uncertainty in relation to rain, then there was reasonable number of farmers who received funds from the programme for certain activities and used them for livestock. In reality it was not intense livestock. They were families who used part of the funds for the planting of crops and another part for buying one or two cows, or a bull. That was a way of maintaining the value of the money that they received throughout the period of the productive cycle. [...] If the drought had come along they would lose the crops and would not be able to pay the bank and provide for themselves".

The expansion in the supply of formal-sector credit by the project has certainly contributed to the weakening of usury within the small farmer sector. But credit extended through the project was also significant in another way. The so-called needs-based lending has further intensified the direct relationship between a broad spectrum of small farmers and the State apparatus.

Small producers could get loans at a very low rate of interest since credit was highly subsidised by the POLONORDESTE programme. However, there was a limit on the amount of credit conceded. This was done according to the MVR (major reference value) as defined by the Central Bank of Brazil. Producers were divided into four categories: the mini producer could get a loan up to 100 MVR; the small from 100 to 600 MVR; the medium from 600 to 3,000 MVR; and the large from 3,000. Since the size of the MVR was not continuously indexed - and the rate of inflation was very high - the amount of credit provided for the mini-producers sometimes reached, a level below that which a producer might need to cultivate his fields, according to the techniques, fertilisers and type of seeds recommended by the project technical advisers.⁷

⁷ According to Cavalcanti (1982:23), this limit on the amount to be lent to the smaller categories of producer had, in some cases, caused trouble because a producer who obtained a good income which exceeded the amount established by the bank, could not continue to get the loans subsidised by the project.

To achieve its aims the State has to build alliances which, in a situation of concentration of both land and capital, are likely to be with the rich or more capitalised farmer. It can be assumed that it was on the capitalist small farmer that the State relied mostly for the success of its policy to stimulate growth. Conversely, to achieve economic mobility the upper peasants find in the State the financial support they are looking for⁸.

To these households, who make up the higher strata of the peasantry in this region, the prospects of upward mobility make the risk worth the possibility of profitable results. If losses occur, they may not basically affect the subsistence requirement of the family. However, their upward mobility depends on having capital and on transforming their neighbours into suppliers of labour and raw materials as, for instance, the owners of modern flour-mills. This is demonstrated by the account of Severino Cordeiro, owner of 7 hectares in Caruaru:

"I got a loan from POLONORDESTE to built an electric flour-mill and bought a pair of oxen. Lots of people here use this flour-mill. They pay 1 kg of manioc flour for each 10 kg of flower processed. Nowadays I plant manioc to make flour and I trade it as a wholesaler. When I do not have enough manioc I buy it from neighbours producers. The POLONORDESTE could be better if it had not finished."

Sometimes, previous experience with a bank may act as an incentive or a barrier for the next time. For those who had previously obtained loans directly from banks and were accustomed to its bureaucratic delays, POLONORDESTE made it easier to get loans. José Felix, owner of 6 hectares in Glória do Goitá, commented:

"I got the loan from POLONORDESTE to built a flour-mill and to buy a cow. With the "cria" (calf) of the cow I paid the loan. Who gave me orientation was a man from EMATER. At that time it was easier to get a loan and to repay it."

Both extensionists and farmers who benefited from the credit component remember it wistfully (World Bank, 1989:11). In that sphere of the IRDP-PE and

⁸ According to Cavalcanti (1982:265), those small farmers who respond quickly to agricultural incentives, provided by State rural development programmes, are those who already have some capital and the possibility of accumulating more.

other IRDPs the farmers spoke with nostalgia: "Agriculture can only improve when the POLONORDESTE returns". According to a technician involved, a negative situation arose from this, which was the following:

"They were small and medium sized producers who progressed during that period and who got used to easy and cheap money. As the credit was subsidised, because it had a nominal rate of interest which was below the rate of inflation, that carried a certain loss of efficiency, because the farmers knew they had that money to repair some inefficiency which might be occurring in their activities. When the POLONORDESTE disappeared they all complained... It was not transmitted to them, especially to the small ones, that the business was ending. Because of that they cannot even think of the chance of taking up money at the market price, of paying the price that the financial market is charging for the money. It's true there are other problems... that prices do not compensate, by not allowing a return that compensates the price generated by the loan at high interests rates."

The more a peasant becomes dependent on capital, however, the more he becomes affected by the risks which such a process brings with it. Because of the risks, there were some small farmers who did not want to work according to the project's expectations, although they were told of the benefits they would gain, such as credit at low interest rates, technical assistance and, at the end, increased production and productivity. Thus, there were also some small producers who did not pay much attention to the benefits of subsidised credit because of the fear of being unable to pay back the credit received. José Matias, owner of 40 hectares em Capoeiras, explained why he did not want to ask for a loan:

"In 1980 I received a loan from the Banco do Brasil. I used it for agriculture and to buy a cow and a pair of oxen. I lost the harvest. At this time there was agricultural insurance but, when I went to the bank the date to complain had expired. The loan was directed from the bank because there was no EMATER office in Capoeiras. I needed to sell some of my goods to pay the loan. From that time I have not asked for credit. I saw a lot of people lose their land to pay the bank."

Peasants, as rational actors, "evaluate the possible outcomes associated with their choices in accordance with their preferences and values. ...They make the choice which they believe will maximise their expected utility" (Popkin, 1979:31). Thus, they calculate the costs and risks involved in the process of getting loans from banks, and in the adoption of new crops or technology. Moreover, market conditions discourage production of basic foodstuffs involving the increased use of purchased inputs.

Finally, we must note that credit is not an agricultural input, rather it increases a borrower's command over inputs for production or consumption. As a financial instrument it has the characteristic that, once the loan is received, the additional household resources can be allocated to any purpose. Thus, although the State purpose of a loan may be the purchase of seeds and fertiliser, the farmer might have been planning to allocate to highest return available, whether in agricultural or nonagricultural activities, for investment or for consumption. The loan has simply increased the amount of resources over which the household has command. A rational peasant will use the additional resources in ways that should provide the highest return or that involve less risk.

3.3. Markets and Middlement

Because of State interest in lowering prices of farm products and the overall constraints on market conditions, marketing was a major area of difficulty in giving support to small farmers. However, deliberate price control policies are not the only factors that are detrimental to small farmers' income. The nature and conditions of participation in the market make them particularly vulnerable and defenceless. As Ortega (1986:263) points out,

"Since peasants do not have socio-economic or purchasing organisations to protect their income, intermediaries or buyers take advantage of the availability of a large variety of small lots of perishable commodities and purchase them at extremely low prices. Peasants are required to adopt a form of behaviour which in itself tends to deteriorate prices because they need to sell quickly, sometimes before harvesting, and they lack storage facilities for their products."

One of the objectives of POLONORDESTE was to improve the marketing infrastructure for agricultural products. One of the consequences of this would be to eliminate the importance of middlemen. The reality is however that marketing modernisation can sometimes have the opposite consequences; increasing the influence of middlemen. An improved output and marketing infrastructure can increase uncertainty of product prices at harvest time. When production in the area is ready the surplus from other states comes to be

marketed in regional market places. The abundant supply brings, as a consequence, lower prices. In good harvest years it is not unusual for some producers to throw away their crops because their low prices do not compensate for the cost of marketing them. Hence, the producer is never sure of the amount of cash he will get at the end of an agricultural year. As is well known increased productivity in the face of not very elastic demand results primarily in benefits to the consumer through lower prices (consumer surplus), rather than higher incomes for producers⁹. The relative success of small farmers integration into the markets has rested on a buoyant demand from the larger cities which have been able to absorb increased supplies of fruits and vegetables without a price collapse.

In the absence of formal marketing arrangements a larger number of competing middlemen have emerged who provide a wide range of marketing services. By abstaining from the provision of direct marketing services, the project provided the environment for a rapid expansion by the small scale commercial sector. Most isolated small farmers tended to sell their surpluses to middlemen at depressed prices. The reasons for this are various. Many small farmers were engaged in multiple relations with local merchants and/ or landowners, in which commercialisation is part of a larger exchange of services. These include on-farm purchase (at fixed prices or relative to the price of regional market); transport of goods to markets (at a fixed price per box of product); provision of working capital, inputs, and new seeds. While these relations tend to limit possible competition in the sphere of commercialisation, it is also important to realise that small farmers supply, in general, tend to be so small and erratic that the development of commercial services at the local level is frequently inhibited by a low volume of trade and high transaction costs - while distance and

⁹ According to Cavalcanti (1982:247), "the interchange between producer and market, represented by the amount of goods brought to the market by the producers, and the amount of income received, is the measure of the effectiveness of Project strategies". Unfortunately, the data from the panel study do not allow us to measure farmers' net income.

transport costs are a disincentive to independent delivery to government purchasing depots, which, moreover, are not organised to receive small lots of ungraded produce (Howe and Goodman, 1992:110).

Very few producers themselves take their products to local markets,¹⁰ or to markets provided by the State, such as the CEASA¹¹. According to Cavalcanti (1982:249-255), though intended to protect small producers, the State also provided opportunities for traders. State intervention in the provision of marketing infrastructure, particularly roads and modernisation of market structure channels, shows a certain ambiguity: both merchant and farmers participate actively in the market and the State gives support to both groups. On many project roads, middlemen were making regular trips to buy agricultural production. Thus the road component may have contributed directly to better working of the vegetable and fruits markets. However, the market constitutes one of the main problems within the project area: the State creates a market which strengthens traders, who were meant to be displaced. Thus, to become traders as a complementary activity was an other alternative used by some households to overcome constraints in agricultural production and the overall adverse market conditions for food crops. On the other hand, the emergence of middleman and fostered competition among them was an advantage for some small farmers who appeared to be well informed about market prices and to have expanded the range of selling open to them.

¹⁰ The traditional local marketplace, called "feira", is a periodic market of itinerant sellers housed in nonpermanent structures (barracas) and convening in a designated place at a set time. Today, distribution within the feiras is carried on by a variety of traders (feirantes), peasant retailers and local shopkeepers. A feira distributes primary goods, as well as finished and semifinished consumer products, and services among rural people who participate in it both as buyers and sellers (See Forman, 1975:94-96). The "feira de Caruaru" is the largest market town of the Pernambuco interior.

¹¹ CEASA is an organisation associated to COBAL (The Brazilian Corporation for Food) and to the Secretariat of Agriculture of Pernambuco State. CEASA, which was established by the government as part of an initiative to rationalise the networks of urban food supply, is located in Recife and it is the main centre for food supply Pernambuco. During the project years, there was also a smaller centre for urban food supply called "Rural Producer Market", located in Bezerros (a city located in the Agreste region). Now it is closed and in its place there is an army headquarters.

Technological progress may take the form of not only of increases in outputs delivered from given inputs, but also of increases in quality and uniformity of products, lowering storage costs and susceptibility to damage, or in other ways, such as a reduction in transaction costs. Increases in the storability of outputs have been a key to the expansion of agricultural markets. For example, because most small farmers do not have access to proper storage, they must sell their production at harvest time and they cannot wait until the supply in the market goes down. As a result, they will receive much less than they would get if they could wait for one or more months.

This problem is by no means insoluble. The Association of Potato Producers (APROBACA), located in a rural area of Caruaru, is a good example of how storage facilities can improve production and high incomes for small producers. The building of a warehouse with a fridge store-room ("câmara frigorífica") with POLONORDESTE resources was essential to improvements in potato production and to the improved living conditions of potato producers. With the storage facilities provided by project, potato producers could reduce loss in their products and wait for a better price in the market.

4. Private Choices: Household Survival Strategies

4.1. Strategies for Gaining and Maintaining Access to Land

As was shown in chapter V, the tendency towards declining average farm size along the project years did not involve fragmentation of "minifundium" farms themselves and the available data does not provide evidence of any general increase in the concentration of land. On the contrary, there was a reduction in the incidence of landlessness and most smaller farmers were able to retain access to land. Moreover, as a result of partitioning of some holdholdings and the reduction of speculative investment in land, the decrease in the average size of properties occurred mainly in the larger categories of farmers. This outcome,

as we will see in the following pages, was due more to the strategies of small farmers rather than as a direct consequence of POLONORDESTE which failed in what would have been its most important contribution to small farming; land reform.

4.1.1. Balancing of inheritance and purchase

It is commonplace in the literature that laws on inheritance constitute a major way of transferring land in rural societies. Peasant farmers usually own small plots and the dissolution of the peasantry would occur very quickly if only laws of inheritance were operative. Brazilian rules on inheritance allow sons and daughters equal rights to their parents' property. Consequently, after a few generations, we might expect land to split to the point where it would not be worth cultivating. However, where inheritance is important, there are mechanisms which serve to preserve the original landholding. According to Cavalcanti (1982:218), it is the capacity of peasant farmers for diversifying the means by which land can be obtained or cultivated that assures continuity. The dynamic of landholdings is a key element in determining peasant survival strategies.

The data on sources of property holding shows how sampled farmers obtained land. As shown in table VI.7, in 1980, 57.4 per cent of the farmers obtained their land through purchase. The remaining cases inherited all their land (17.4 per cent) or part of their land (16.2 per cent). In very few cases was land obtained from other sources (2.7 per cent), such as by land invasion, by "usucapião"¹² or by donations. In 1985 there was a slight increase in the number of farmers who obtained some land or all their land from inheritance. This was the case with some landless producers who became proprietors.

¹² From the Latin "usucapione". "The "usucapião" is a way of acquiring a property by its pacific occupation and uninterrupted use. The "usucapião" law gives the right of land ownership to a rural producer who has worked effectively on a piece of land previously empty, at least for five uninterrupted years.

The table makes it clear that there are no significant differences amongst the four strata of farmers. The smallest farmers were more dependent on inheritance: in 1980, 25 per cent of families had acquired all their land through inheritance and this situation remained constant in 1985. For the largest farmers land came mainly through purchase and inheritance as combined strategies (42.9 per cent of the families in 1980 and 50 per cent in 1985). However, it is interesting to observe that laws on inheritance were less important than purchase as a way of acquiring land amongst the sampled farmers. More than half of the farmers acquired land through purchase and there is a remarkable similarity for all categories. This trade in land is usually made among relatives or neighbours. Sometimes successive small plots are purchased to form the production unit.

TABLE VI.7 - NORTHERN AGRESTE: ACCESS TO LAND BY SIZE CATEGORY OF FARMS (row per cent), PANEL SAMPLE, 1980/85.

Farms	Purchase	Inheritance	Purchase + Inherit.	Other	Landless	Total (%)
	1980					
Micro	43.2	25.0	6.8	0.3	22.7	88 (100)
Small	67.5	14.6	14.6	1.6	1.6	124 (100)
Medium	58.3	15.6	21.7	4.5	-	115 (100)
Large	50.0	7.1	42.9	-	-	14 (100)
All	57.35	17.4	16.2	2.7	6.5	340 (100)
	1985					
Micro	43.2	25.0	14.8	2.3	14.8	88 (100)
Small	59.4	13.8	23.6	2.4	0.8	124 (100)
Medium	52.2	19.3	28.7	-	-	115 (100)
Large	35.7	14.3	50.0	-	-	14 (100)
All	51.8	18.5	24.1	1.4	4.2	340 (100)

Source: POLONORDESTE/PIMES-UFPE Surveys

Cavalcanti (1982:241) provided evidence that the larger the farm, the larger the number of people it may retain and the stronger is the possibility that the farm will be divided and subsequently become smaller. There are cases of farmers left with little land as a result of the splitting-up of a large holding. There are fluctuations in the well-being of households through generations and, despite their differences, peasants have been able to use diversified strategies which contribute towards their continuity. As is well known, peasantries have a remarkable survival capacity.

The increasing demographic pressure on existing land causes households to increasingly diversify their economic activities. As Deere (1982) puts it, "the key survival of the minifundio is the allocation of family time among the labour market, subsistence agricultural production, and alternative income-generating and maintenance activities". When the father's farm is small, the division of land will not be sufficient for meeting family needs. In this case, alternative means of subsistence have to be sought such as renting a plot, alternative jobs or activities outside agriculture, such as crafts and trades, while awaiting the opportunity to buy land. Vehicle owners supplement their income by transporting people and commodities to and from the community. To complement the family budget, husbands and sons might permanently engage in seasonal migration to plantations or urban centres. Migration is the main strategy used by small producers to achieve a balance between family membership and size of land. Land is rarely sold by migrants. When permanent emigration of family members occurs, land would be retained in the family's hands though the renting or the purchase of plots of land from brothers or sisters who emigrate.

In some cases, savings may not be enough to purchase a piece of land. Credit from a bank is a possible alternative for those who have collateral. Investing savings in cattle might be a strategy while waiting for the opportunity to buy a piece of land, because evidence of some sort of capital is a requirement for credit. Nevertheless, it should be observed that the inefficiency of the land reform component makes it difficult to overcome a serious obstacle to long-term

rural prosperity in the Northern Agreste region: the shortage of land in the small-farm sector.

4.1.2. Land titling

But land reform is not the only measure that could affect the small farmers; land legalisation and entitlement also play an important role in the development of small-scale production. Significant improvements in the farm will require capitalisation, and capitalisation will require clear title to land - to obtain credit and to allow fixed investment. Despite the underemphasis on land purchase, the State Land Authority (COTEPE) seems to have contributed to improving land titling services, assuring the legal rights on land of smaller farmers. In 1980 more than 40 per cent of micro farm' owners had no title their land. In 1985 this number had declined to 16 per cent (see table VI.8).

TABLE VI.8 - NORTHERN AGRESTE: OWNERS WHO HAD TITLE OF LAND BY SIZE CATEGORIES OF FARMS (row per cent), PANEL SAMPLE, 1980/85.

Farms	Yes	No	Landless	Total (100%)
	1980			
Micro	54.5	43.8	21.6	88
Small	86.2	12.2	1.6	124
Medium	89.6	9.6	0.9	115
Large	92.9	7.1	-	14
All	79.4	14.1	6.5	340
	1985			
Micro	69.3	15.9	14.8	88
Small	91.1	8.1	0.8	124
Medium	92.2	7.8	-	115
Large	92.9	7.1	-	14
Total	85.9	10.0	4.1	340

Source: POLONORDESTE/PIMES-UFPE Surveys

The existence of a very large number of small 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 traditional agriculture. However, insecurity of title does present a major obstacle to agricultural modernisation in the small farming sector. Without secure title, access to medium and long-term official credit is problematic and the incentive for investments in land and fixed assets is low. Therefore, land regularisation is important not only to enforce those aspects of land law granting rights to long-term occupants, but also for creating the conditions for increased income on existing holdings with less problematic claims to peasant ownership. Although this measure did not help to overcome landlessness and concentration of ownership, it helped those who are blocked in the exploitation of the potential of their existing assets.

Feder and Feeny (1993), focusing on the relationship between property rights in land and resource allocation in agriculture explore, in a theoretical model, the consequences of insecurity of land rights. The contribution of the Feder and Feeny model is to identify three distinct sources of the efficiency cost of security of land rights. One obvious source is the distortion in farmers’ incentives to invest in land. A second cost arises if land is used as collateral for debt. In this case, part of the risks of land loss is borne by the lender, and thus insecurity of land rights will reduce farmers’ access to capital. The third efficiency cost arises because uncertainty in rural land rights depresses the price of capital much less (if at all) than the price of rural land, under the plausible assumption that rural land but not capital is in inelastic supply. The increase in the relative capital-land price-ratio will, through the usual substitution effect, reduce the capital intensity of farming.

The implication of this theoretical model is that, to the extent that State measures, such as titling, increase the security of property rights in land, they will increase the efficiency of resource allocation in the rural sector. Implicit in this view is the universal neo-classical notion that efficiency can only be achieved

by ensuring that impediments are removed to the rational decision-making of self-seeking individuals. The new institutionalism also supports reforms that redistribute land to individual owners, based on slightly different reasoning. According to Newbery (1989:288), the notion of efficient property rights in agriculture comes from the need to reduce transaction costs and to avoid principal-agent problems that can arise in other forms of agricultural relations such as hiring labour.

4.1.3. Sharecropping and Tenancy

For some economists sharecropping is seen as an inefficient institution whose consequences they could analyse, but whose persistence and perverseness remained essentially unexplained. For some neo-Marxists sharecropping is exploitative and prohibition sought in the interests of both efficiency and equity. However, a vigorous debate about sharecropping in the 1970s suggested that it was not necessarily inefficient and also, it had features favourable to the sharecropper, compared with simple rental contract. According to Stiglitz (1989: 21), sharecropping performs a clearly role in sharing risks between landlords and tenants; in the absence of insurance markets (or other markets for risks), this is clearly an important economic function. Thus, he argues against the standard view that criticised sharecropping as inefficient because it dampened incentives, sharecropping was desirable because it increased incentives. For him, sharecropping represents a compromise between risks and incentive effects; while rental contracts provided perfect incentives, the tenant had to absorb all the risk; wage contracts, in which the landlord absorbed the risk, provided no incentive to work, unless workers were closely monitored. In sum, risk-spreading characteristic of sharecropping is beneficial in the high-risk environment of peasant agriculture for an operator who, because of poverty is highly risk-averse.

The traditional form of labour supply in the Agreste region was related to the existence of the called "precapitalist latifundium / minifundium structure" (Sá,

1975), in which large farmers utilised the labour of moradores, tenant farmers and sharecroppers. Even small owners of minifundia holdings, of insufficient size to meet family livelihood needs, used to rent additional land on large farms or worked as day-labourers at seasonal demand peaks. During the 1980s, sharecropping or renting a plot was not easy in the area. According to the data (table VI.9) the amount of land under tenancy and sharecropping remained relatively small throughout the years of the panel study (only about 10 per cent of the total land in production units). However, due to the reduction in the total land available to the farms in the second wave of the panel study, there was a slight reduction in the amount of land rented. There was also a slight decrease in the number of production units operated by sharecroppers and tenants because of their change from "landless" producers to landowners during the project years. The use of sharecropped and rented land is, naturally, typical of landless producers, micro and small owners, and also in a few cases of medium sized holders. For small proprietors, sharecropping and tenancy are not systems in danger of extinction, since the availability of land would be maintained. As is well known, in "minifundium" farms, this is a way of complementing family income and avoiding semi-proletarianisation.

In a sense, sharecropping and some tenant farming are also 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 interests (in the form of product or money rent). In addition to this form of "credit" (which is a rental system) it is common for landlords to advance seed and other inputs, as well as basic foodstuffs that allow a sharecropper family to survive until the harvest. These advances were repaid in cash with interest, out of the sharecropper's share of the marketed harvest, or, more commonly, repaid in kind because of high taxes of inflation. According to Howe and Goodman (1992:109) in either case, "this kind of credit has the potential for evolving into a system of debt servitude". When the 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 difficult to disengage from the debt, ensuring to the landlord the continued co-operation of the

TABLE VI.9 - NORTHERN AGRESTE: COMPOSITION OF PRODUCTION UNITS: OWNED LAND AND RENTED LAND BY SIZE CATEGORIES OF FARMS, PANEL SAMPLE, 1980/85.

Farm Size	1980			1985		
	Area owned (ha)	Area rented (ha)	Total area (ha)	Area owned (ha)	Area rented (ha)	Total area (ha)
Micro	341.2	79.9	421.1	474.4	66.7	541.1
Small	3,485.3	62.2	3,547.5	3,613.1	95.3	3,708.4
Medium	11,116.3	75.8	11,192.1	10,090.6	10.0	10,100.6
Large	6,357.0	-	6,357.0	4,463.0	-	4,463.0
Total	21,299.8	217.9	21,517.7	18,641.1	172.0	18,831.1

Source: POLONORDESTE/PIMES-UFPE Surveys

sharecropper or tenant farmer. Despite, some pernicious effects of these informal credit mechanisms, it is important to keep in mind that they are linked to access to other resources and services - land and markets in particular- and that is part of the reason they are used by small farmers.

In the analysis of the information from the perspective of the proprietors who concede land in tenancy, sharecropping and moradia (Table VI.10) shows the same trend, in which 10 per cent of owned land is leased out in both years. Because of the reduction in the total land available to the farms in the second wave of the panel study, there was a slight reduction in the amount of land leased out. Also the number of sharecroppers, tenants and moradores on farms fell from 891 in 1980 to 796 in 1985.

Let us now look at this information from the perspective of size categories of the proprietors who ceded land in tenancy, sharecropping and moradia systems in the panel sample. The pattern which can be perceived is that it is not only the largest landlords who give land to internal and external peasants. Medium and small holders also had a relatively high proportion of their land shared with sub-family holders and internal peasants. However, there is a great variation in the

TABLE VI 10 - NORTHERN AGRESTE: AMOUNT OF LAND LEASED OUT AND NUMBER OF TENANTS, SHARECROPPERS, AND MORADORES BY SIZE CATEGORIES OF FARMS, PANEL SAMPLE, 1980/85

Farm Size	1980			1985		
	Area leased out (ha)	Tenants, sharecroppers and Moradores		Area leased out (ha)	Tenants, sharecroppers and Moradores	
		No	Average		No	Average
Micro	13.5	48	0.5	6.5	9	0.1
Small	291.1	154	1.3	261.5	111	0.9
Medium	965.5	433	3.8	941.9	449	3.9
Large	851.7	256	18.3	770.0	227	16.2
Total	2,121.8	891	2.6	1,979.1	796	2.3

Source: POLONORDESTE/PIMES-UFPE Surveys

number of tenants, sharecroppers and “moradores” families, which is proportional to the size of available land.

According to the data on the main obligations of the sharecropper towards the landlord (table VI.11), the concession of land in return for fodder (for cattle) is still the major reason for persistence of this system. The next most important factor is the supply of grass (also for cattle). Although important in 1980, tenancy relations based on “share in crop production” or as a way of supplying cheap labour through the obligation of sharecroppers to give “priority of work for the landlord” and the obligation to “give a free day’s work on the landlord’s land”, had lost its importance in the subsequent panel wave. The data on tenancy and sharecropping arrangements confirms the increased erosion of the “precapitalist latifundium / minifundium” structure and the traditional form of labour supply for larger farms. For smaller farmers, this erosion means a reduction in land available for tenancy as a way of complementing family income.

TABLE VI.11 - NORTHERN AGRESTE: MAIN OBLIGATIONS OF SHARECROPPER TOWARDS THE LANDLORD, PANEL SAMPLE, 1980/85.

Obligations	1980		1985	
	No	%	No	%
Return straw fodder	113	53.8	74	75.5
Planted pasture	26	12.4	6	6.1
Priority of work for the landlord	22	10.5	3	3.1
Share in the crop production	23	11.0	7	7.1
To give free working days or lower payment for worked days	13	6.2	7	7.1
Other	13	6.2	1	1.0
Total (*)	221	100.0	98	100.0

Source: POLONORDESTE/PIMES-UFPE Surveys

(*) The total corresponds to the number of mentioned obligations. In some cases more than one obligation was mentioned. The reduction in these numbers is related to the increase of tenancy by payment only in cash.

4.2. The Wage Labour Market: An Income Defensive Strategy

The consequences of POLONORDESTE for the labour market have predictably enough been mixed. While the proletarianization of rural workers has not occurred on a grand scale neither can it be said that the family farm utilizing exclusively family labour has been strengthened. In fact what occurred was a combination of apparently mutually exclusive processes; an increase in wage labour combined with a strengthening of small farming. How did this happen?

The decrease in importance in traditional forms of labour use led us to take into account other labour supply options and the categories of employment in the region. Since forms of occupation are complex and activities varied in rural areas, the analysis of employment requires an adequate understanding of what is meant by productive employment. The data on the agricultural labour force contain information on the number of persons, number of days worked in and

outside the holding. The PIMES researchers' classification of the labour force divided workers into two groups:

a) Unpaid family-labour (the members of the household who work without determination of the form and period of payment). This includes the head of household, the wife, the adult sons and daughters and relatives, and the children (less than 15 years old);

b) Employees are those who sell their labour for payment in cash. They are classified as permanent workers (those who have steady employment or work for a long time, with a formal link) and temporary workers (those hired for temporary work or activities of short duration, with daily payment or by contracted job). A "morador" is a resident permanent worker who receives, as part of his compensation, a dwelling on the farm and a plot for cultivation of subsistence crops. A "non-morador" permanent worker is contracted annually but receives no housing or land.

The data on the agricultural labour force have some general shortcomings. In relation to employment, the questionnaire collected information on the number of workers (individuals) and the number of labour-days worked per year, which placed a considerable burden on the individual by requiring him to remember the number of days effectively worked over such a long period. Also, as the questionnaire was applied to the person responsible for the administration of the farm (owner-operator, administrator or manager) it was difficult for him to know the exact number of days worked by members of the family, "non-morador" workers hired permanently or resident workers. The above-mentioned restrictions are common to any empirical study and should be kept in mind, but it is not thought that they undermine the conclusions drawn from the data.

Analysis of data on the composition of the labour force¹³ shows that there is a great variation in the number of workers by category of employment and the

¹³ The questionnaire used in 1985 had a somewhat different format for collecting information on categories of employment, compared with the questionnaire used in 1980, thus making

number of days effectively worked per annum on the farms. For this reason, our analysis will use as a measure of the importance of categories of farm employment an "equivalent-worker", which means "an agricultural worker fully employed 300 days per annum". If we take the number of labour-days worked by unpaid family-labour on the sampled farms as an "equivalent-worker" (table VI.12) this is a more significant employment category. Despite the importance of family-labour in the composition of employment, the data show that important changes have taken place in the composition of categories of employment in this region¹⁴. The number of waged labour-days constitute 41.1 per cent of the labour force, with a sharp predominance of temporary workers (31.7 per cent of the labour is provided by temporary workers, against 9.4 per cent of permanent workers' labour).

Analysis of the composition of agricultural employment by size of units of production shows clearly that the use of different categories of employment is, in general terms, related to farm size. The structure of the labour force reflects the specific form of social organisation of production in the different categories of farms. On smaller units, the labour process is based mainly on family labour, while larger units rely mostly on proletarian labour. Unpaid family-labour makes up 85.9 per cent of the total labour used on micro holdings, in contrast to 80.9 per cent in waged labour on large farms. The importance of unpaid family labour also exceeds the importance of salaried workers on small farms (70.6 per cent) while employed labour ranks first in the composition of employment in medium farms (55 per cent).

comparison over the years more difficult. Because of this restriction, our analysis will be limited to information collected in the last panel wave (1985), which provides enough information to give a general picture of the labour force used in the economic activities of the farms.

¹⁴According to Kageyama and Graziano da Silva (1988) the increase of temporary workers in agricultural employment between 1970 and 1980 was responsible for more than 50% of the total employment created in Brazilian agriculture. In the Brazilian North-East, of the 1,838,000 jobs additional created in the decade, 1,046,000 (57%) were of temporary workers.

TABLE VI.12 - NORTHERN AGRESTE: COMPOSITION OF AGRICULTURAL LABOUR FORCE, BY TYPE OF EMPLOYMENT AND SIZE CATEGORY OF FARMS (IN EQUIVALENT-WORKERS PER YEAR) (*), PANEL DATA, 1980/85.

Categories of Employment	Micro	Small	Medium	Large	Total
Family labour					
Head	65.2	81.3	85.4	6.4	238.3
Wife	27.4	36.1	23.6	1.0	88.1
Sons > 15 years.	40.4	116.7	86.1	8.9	252.1
Daughter>15 years	43.1	54.2	30.4	1.0	128.7
Children (under 15 years)	43.1	62.3	25.4	7.0	135.8
Sub-total	219.2	350.6	250.9	24.3	845.0
(%)	(85.9)	(70.6)	(45.0)	(19.0)	(58.9)
Permanent Labour					
Administrator	-	2.0	6.0	3.0	11.0
Herdsmen	-	3.5	14.9	10.5	28.9
Men (Morador)	1.9	16.3	31.7	10.7	60.6
Men (Non-morador)	2.9	6.6	7.3	10.0	26.8
Women	-	1.0	6.3	-	7.3
Sub-total	4.8	29.4	66.2	34.2	134.6
(%)	(1.9)	(5.9)	(11.9)	(26.8)	(9.4)
Temporary Labour					
Hired Men	29.1	108.6	226.4	63.9	428.0
Hired Women	2.1	8.0	13.4	5.0	28.5
Sub-total	31.2	116.6	239.8	68.9	456.5
(%)	(12.2)	(23.4)	(43.1)	(54.1)	(31.7)
Total	255.2	496.6	556.9	127.4	1,436.1
(%)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
Average per Farm	2.9	4.0	4.8	9.1	4.2

Source: POLONORDESTE/PIMES-UFPE Surveys

(*) The "equivalent-worker" meant an agricultural worker fully employed 300 days per annum. These numbers represent the amount of work/days "hired in" in the sampled farms in "equivalent-worker". I did not take into consideration sex, age or position in the occupation.

Thus, these results are compatible with the presumed association between farm size and the level of capitalist penetration in the sphere of production. Peasant farms (which use predominantly family labour) are concentrated in smaller holdings, and capitalised farms (which use mainly salaried employees - temporary or permanent) are essentially the larger farms. However, medium farms have a relatively high proportion of family-labour (45.0 per cent of the total labour) while small farms also rely on capitalist relations of production (29.3 per cent of labour is provided by salaried workers).

Analysis of the labour force provided by salaried employment shows that temporary labour greatly exceeds that of permanent labour in all categories of farms. As a rule, labour demand in rural areas is conditioned by the particular form of production and the seasonality of agricultural activities. So while the utilisation of permanent labourers is linked to the permanent activities of the holdings - such as management or livestock activities - that of seasonal labourers is closely related to the needs of the crop cycle or the seasonal nature of agricultural activities. Although the seasonal character and the discontinuity of the production process explains to some extent the intensity in the utilisation of temporary labour, Ferreira (1984) suggests that other factors, such as changes in the production mix or the modernisation of some agricultural and livestock activities, could be largely responsible for modifications in traditional forms of labour use.

The great importance of temporary labour in the constitution of the salaried labour force reflects the principal manifestation of capitalist relations in agriculture. Temporary labour consists mainly of landless agricultural workers but also of smallholding producers (owner-operators or sharecroppers) who, with limited access to land, have to depend on outside employment for their reproduction. In Brazil, the replacement of permanent workers came early in the 1960s, before the rapid technological transformation, and it also occurred in

poor areas which had not introduced technological change to any large extent. According to Castro de Rezende (1985), the preference given to temporary workers came on the part of the landlords as a means of bypassing labour laws or institutional constraints. The implementation of the Rural Labour Statute in 1963, which extended to agricultural workers the minimum wage and social benefits already applied to the urban labour market, did not include non-resident temporary workers, which then became a much cheaper source of labour.

However, as pointed out by Kageyama and Graziano da Silva (1988) if, from the perspective of demand, temporary workers constitute a capitalist form of employment (in contrast to those of family labour), we cannot ignore the fact that *these workers are not necessarily a rural proletariat in the classical sense*. Some of them are small producers or family members, who, because of inadequate access to resources, particularly to sufficient land and complementary means of production, must seek off-farm employment as a temporary or permanent recourse to ensure reproduction¹⁵. In this sense, according to Goodman (1989), these households are semi-proletarians. Thus, from the perspective of supply, this might represent an increase in the importance of the family production unit as a source of labour for the capitalist enterprise system.

The amount of labour reserved for capitalist production is related to resource availability in non-capitalist activities. In this way, according to Ferreira (1984) the greater or lesser availability of labour (small landowners, sharecroppers, tenant farmers and squatters) for seasonal or short-term activities in capitalist production depends on the intensity of work in family production units, which is in turn related to their possession of resources and means of production. When access to land and other resources is limited, one strategy used by the group of small producers as a whole is to sell their labour in the local labour market. Not

¹⁵ The absorption of labour is also related to farm size, so that on large farms the average is 9 workers with full employment per farm per annum. It is followed, in the importance of absorption of labour, by medium and small farms, where the average is 5 and 4 workers per farm respectively. On micro farms the average is 3 workers with full employment per annum.

all surplus labour need emigrate, if sons of small farmers and their relatives can sell their labour seasonally. This participation in the labour market play an important role in dampening fluctuation in income - fluctuation which frequently undermine the livelihood of small farmers in the long run.

4.3. Migration: Defusing Demographic Pressure

To the extent that one of the objectives of POLONORDESTE was to restrict the flood of rural migration to the cities it failed. On the other hand, ironically, it was this failure which helped to achieve another aim, the stabilization of small farming. In this section I want to look at how migration served as a small farmer strategy to maintain existing holdings.

For an overall understanding of household livelihood strategies in the rural area of the project, I will rely on the sample of 246 farming households¹⁶. Information was collected on 2,185 people (including married and migrant children), or an average of 8.9 people per family unit. The people interviewed were, whenever possible, the couple or the head of the family. For this reason, families whose residence was outside the area of the project were not included in this analysis.

In most of the cases (67 per cent), families were living in houses located in the middle of their plots, so the farm area is not separate from the home area¹⁷. The majority of the houses accommodate a nuclear family and may occasionally provide a room, in case of need, for other relatives or for other families.

Sometimes a son emigrates intending to take his family with him soon. There are also cases in which married sons build their house near their parents' houses. In cases like this, they usually work together on the same land. The mean size of households is 6.2 people, with almost four children per household. Parents and children correspond to 88.3 per cent of family members. The

¹⁶ This sample corresponds to the number of households interviewed in part two of the questionnaire (Characterisation of family units) in 1985, which corresponds to 72.4 per cent of the farmers' residential units.

¹⁷ The remaining families lived outside the farms, with 19 per cent of farmers coming daily to the farm, 11.9% weekly and 2.1% monthly or less.

number of relatives living with the nuclear family is low (11.7 per cent) and their relationship the head of household is varied.

The age structure of families helps us to understand one of the main socio-economic processes: outmigration. According to data in table VI.13, the majority of household couples are concentrated in the older age-groups. Only 23.4 per cent of heads of family are under 45, while 41.1 per cent are over 60. Wives are slightly younger than husbands. Children living within households are younger than children who have left (see also table VI.14). This gives a picture of an area in which the household work-force is made up mainly of younger people (42.8 per cent of residents are between 7 and 21 years old) and older people (32.1 per cent of residents are over 35). There is a sharp concentration of migrants in the age group from 22 to 35 (62.9 per cent). Each household had lost, on average, 2,6 children to migration.

TABLE VI.13 - NORTHERN AGRESTE: RESIDENT POPULATION ACCORDING TO THEIR RELATIONSHIP TO HEAD OF HOUSEHOLD AND AGE GROUP (column percent), PANEL SAMPLE, 1985.

Age-Group	Head(*)	Wife	Children	Other Relatives	Total
0 – 6	-	-	13.3	23.3	10.4
7 – 14	-	-	31.3	35.6	22.1
15 – 21	-	0.4	32.8	15.6	20.8
22 – 28	2.0	4.4	13.5	7.2	9.6
29 – 35	3.7	6.2	5.1	4.4	5.0
36 – 45	17.7	23.8	2.8	5.5	8.1
46 – 60	38.4	44.9	1.1	1.1	13.6
61 and over	41.2	20.1	-	7.8	10.5
Ni	-	0.9	0.1	1.1	0.4
Total	245	229	880	180	1.535
(%)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: POLONORDESTE / PIMES-UFPE Surveys

(*) There are 12 cases in which the family is headed by women.

TABLE VI.14 - NORTHERN AGRESTE: MIGRANTS ACCORDING TO THEIR RELATIONSHIP TO HEAD OF HOUSEHOLD AND AGE GROUP (column percent), PANEL DATA, 1985.

Age-Group	Children	Other Relatives	Total
Up to 14	2.7	-	2.6
15 - 21	10.9	14.3	10.9
22 - 28	33.2	-	32.5
29 - 35	29.7	7.1	29.2
36 - 45	19.7	28.6	19.9
46 and over	2.5	50.0	3.5
NI	1.4	-	1.4
Total	636	14	650
(%)	(100.0)	(100.0)	(100.0)

Source: POLONORDESTE / PIMES-UFPE Surveys

The high population density and the increasing demographic pressure on existing land has resulted in migration of part of the Northern Agreste economically active population. Other factors responsible for migration in the area are long periods of drought and the uncertainty of the climate. Sowing time is marked not by dates, but by the onset of rain. If the rain is late in coming it will disturb the whole life of the peasant¹⁸. However, as Ferreira (1984) observed in the Sertão region, the drought phenomenon and population surplus should not be emphasised as the most important element in this process. They are only some of the conditioning elements. Migratory trends should be considered also in relation to production conditions. The ownership structure, the substitution of livestock for agriculture, changes in crop production and the modernisation of production can also contribute to the rural emigration. As pointed out by Roberts (1979:91) "areas of capitalist farming 'expel' more people than areas of peasant

¹⁸ The periodic droughts transformed the afflicted areas into disaster zones in which the despair caused by hunger promotes unrest. Without the means to subsist, whole families invade the nearby cities and cause riots in order to get food. Having no way to feed their families, groups of peasants went to nearby towns and threatened to invade "market places" if the prefeitos did not provide food or work for them. For instance, in a "Veja" magazine (1991) article called "Emergency way out" (Saída de Emergencia) it is affirmed that, in the Sertão region "to organise a plunder is so natural as to call the neighbours to go to a football game".

farming". Nevertheless, as he also stressed, areas of peasant production may present a more complex set of urban-rural relationships in which family enterprises span rural and urban locations, with town migrants retaining rights to land and aiming to return eventually.

The main strategy used by rural populations in the face of socio-economic constraints is migration. Land cannot easily be acquired by the landless or small producers in the Northern Agreste and this restriction in the market for land is one of the reasons for outmigration¹⁹. For some, migration represents a strategy for obtaining the means to come back with sufficient money to buy a piece of land for themselves or to increase the area of the family farm or to help other family members by supplying the means of survival of the household units. For others, migration is a means of finding a living, then, even seasonal migration is transformed, with time, into a permanent strategy.

According to Cavalcanti (1982:84-89) when there is a shortage of land to cultivate and when the grown-up children realise that their father's farm can neither provide them with a plot nor supply their wants, migration becomes a normal event in a particular phase of the domestic group. When the male children reach adulthood it is time for them to get their own plot or to form part of the land of their parents for themselves. When the parent's farm is insufficient to provide land to enable the son to get married the household splits.

The majority of migrants are children of the household head (97.9 per cent). Most of the children (60 per cent) left their parents' home to get married. A third of them emigrated to get a job²⁰. Even when they migrate to get married, this is

¹⁹ A specific analysis of rural migration in Latin American (Shaw, 1974) suggests that the land tenure system is an important factor in explaining rural migration rates since it conditions employment opportunities in agriculture. A more concentrated land-tenure system acts as a push factor, while a large small-farm sector allows a retention of population and a reduction in migration rates. However, in area of small farms, where the land is not sufficient to feed large families, migration by children is the main way to keep a balance between workers and land (See Maia, 1991).

²⁰ This category of answer "to get a job" includes also other assertions such as "lack of land or job locally", "expectations of better income", or "information about better work conditions".

related to their need to establish themselves as an independent household. If they have no hope of gaining control of a piece of land through the inheritance mechanism or via some means of staying working for others in the same area, they will become wage-workers somewhere else.

The empirical evidence shows that the reasons for migrating are related to socio-economic factors. The average number of emigrants per household among the larger and smaller landholders is higher than in other categories (3.8 and 3.2 migrants per household, respectively). However, as shown in table VI.15, they emigrate for quite different reasons. The larger farmer had the lowest percentage of emigrants who left home to get work (2.9 per cent) and the largest percentage of emigrants whose reason for migrating was to study (55.9 per cent). Thus, the wealthier farmers may either provide for their children to stay at home until they get married, or provide funds for them to study outside. The opposite occurs in the case of micro households. They had the largest percentage of members who migrated to get a job (35.8 per cent) and only 4.2 per cent of their migrants went away to study. The small and the medium categories of farmers have the lowest average number of migrants per family (2.3 and 2.5 migrants per household, respectively). However, their reasons for migrating follow closely the tendency observed in micro and large farmers. The high correlation between size of landholdings and reasons for migration confirms what Cavalcanti (1982:86) stressed: "migration is a social and not only a demographic response"²¹.

The data on the direction of the rural outmigration (Table VI.16) show that migration is not simply the product of desperate rural poverty, but appears to be based in part, on the attraction of the city²² and of its economic and educational

²¹ See also Maia (1991).

²² According to Maia's fieldwork on subsistence strategies of small producers in rural Bahia, one of the reasons for migration is that "young people want a flow of cash to buy small luxuries which are readily available in cities". In the "roça", they say "we do not see even the colour of money" (Maia, 1991:209).

TABLE VI.15 - NORTHERN AGRESTE: REASON FOR MIGRATION BY SIZE CATEGORY OF FARMS (COLUMN PER CENT), PANEL DATA, 1985.

Reason for migration	Micro	Small	Medium	Large	Total
To get married	58.1	66.0	58.5	38.2	59.7
To get a job	35.8	30.1	19.0	2.9	27.2
To study	4.2	2.9	21.0	55.9	11.5
Others reasons	1.9	1.0	1.5	1.9	1.5
Total	215	206	195	34	650
(%)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: POLONORDESTE / PIMES-UFPE Surveys

TABLE VI.16 - NORTHERN AGRESTE: DIRECTION OF MIGRATION BY REASON FOR MIGRATION (column percent), PANEL SAMPLE, 1985.

Direction of Migration	To get married	To study	To get a job	Others	Total
NE-Cities	39.4	98.7	26.6	80.0	43.4
NE-Rural	35.6	1.3	8.5	-	28.6
South-East	18.6	-	63.3	20.0	23.7
Others	6.4	-	1.7	-	4.3
Total	388	75	177	10	650
%	100.0	100.0	100.0	100.0	100.0

Source: POLONORDESTE/PIMES-UFPE Surveys

opportunities for both the poor and the better-off members of rural society. Even when children migrate to study they usually stay in the large cities after graduation. The data show that 72 per cent of household members emigrate to urban centres. If the reason for emigration is to study, they always go to North-Eastern cities (98.8 per cent of the cases that left home to study). If they want go further than the fourth year and to finish primary school (which takes 8 years) they must go to large villages or to the nearest towns. Secondary school exists only in towns (sede de municipios), and Universities or Faculties are available

only in the largest cities or capitals, like Caruaru and Recife. Thus, only better-off farmers can afford to send their children to them.

Whether the reason is to get a job or to have a better salary they usually go to the large cities in the South-East region, mainly São Paulo and Rio de Janeiro (63.3 per cent). Migrants, whatever their origins, arrive in the largest urban centres as a result of some prior contact or information. Many migrants have jobs or lodgings assured them before their arrival in the city. Cavalcanti's fieldwork (1982:95) indicates that people choose the city where they have more relatives or friends. To travel to Rio de Janeiro, São Paulo and Brasília is easy with agents of one or two big bus companies operating in the area. For such people to move to the large cities and, by and large, to stay in them, appears to suggest that the urban economy has some capacity to absorb the increasing numbers of the economically active population and that employment opportunities continue to expand. However, this was not in fact the case²³. These migrants are a cause for concern for the authorities of those cities, especially with the recession in the construction sector since the 1980s. Nevertheless, migrating to other North-Eastern rural areas is the least popular choice among migrants, who want to improve living conditions through a better job or salary (8.5 per cent).

Migration, in the context of limited employment opportunities in the commercial and industrial sector, only transfers the difficulties of the small-farm sector to other regions. In fact, Northern Agreste small producers migrate in order to defuse demographic pressure on existing land and due to lack of local employment opportunities. However, wages in the cities are so low that only a few migrants are capable of remitting enough money to the families left behind. They send money and goods only sporadically and consequently are not

²³ According to Maia's fieldwork (1991:207), numerous girls and boys over 16 years of age have gone to the large cities to work: girls in domestic activities and the boys until 1980 mostly in the construction sector. Five years later the situation changed; most families with migrant children informed that the boys work as street sellers, mechanics, washing cars, etc., that is, in the informal sector.

significant for the household income (only 6.5 per cent of households stated that they had received some money from emigrant members).

On the other hand, migration has resulted in labour scarcity in the region, causing problems for large enterprises such as sugar-mills²⁴ and "fazendas", as well as for small farms. The defection of one member to seek work permanently outside is likely to have serious consequences for the viability of the household unit. Sometimes the migration of family members and fragmentation of the economic enterprise undermines its basis as a unit of production. It is, therefore, not surprising to find small farms cultivated by wage labours or sharecroppers while the proprietors are still living in the area, since their children have left to seek a better life. Thus, migrants are seen to cause problems both in the places to which they go and in those they leave.

In this way, to stabilise rural areas and to solve urban problems are important reasons for the State's interest in giving support to small farms. The POLONORDESTE attempts to improve the level of per capita income and rural employment opportunities have aimed to prevent out migration, alleviating problems caused by the conditions of the over-crowded large cities. However, peasants have their own interests and they are aware of the local socio-economic constraints and of the economic and educational opportunities which exist in urban centres. As is shown in table VI.17, there was no change in the trend towards to increasing migrating patterns in the project area. The longitudinal data shows that the number of household members who emigrated in the 1980-1985 period, except in the category of micro farmers, is higher than

²⁴ The specific characteristics of the cycles of production activities in Northern Agreste allows the availability of migrant seasonal labour for sugar cane production in the Mata zone, where they work as cane cutters. This is possible because the cane cutting season partly coincides with the dead season in the Agreste, or at least with activities that can be left to the women and children. Expedients such as temporary migration to sugar-cane region were an integral part of the survival of the Agreste household economy. Although husband's or son's wage labour was not enough to provide an attractive basis for the permanent migration of the whole family, it was generally sufficient to complement small-scale farming. However, with the deteriorating working conditions and low wages of the plantations it no longer appears attractive, even for temporary migration.

in previous periods, demonstrating that the State failed in its attempts to prevent migration from the area.

TABLE VI.17 - NORTHERN AGRESTE: MIGRANTS BY PERIOD OF EMIGRATION AND SIZE CATEGORY OF FARMS (row percent), PANEL DATA, 1985.

	1940/69	1970/74	1975/79	1980/85	NI	Total (%)
Micro	13.0	21.8	28.8	26.5	9.8	215 (100)
Small	12.6	13.1	16.5	33.5	24.3	206 (100)
Medium	11.3	16.9	21.0	34.9	15.9	195 (100)
Large	50.0	5.9	5.9	5.9	32.4	34 (100)
Total	14.3	16.7	21.4	30.2	17.4	650 (100)

Source: POLONORDESTE / PIMES-UFPE Surveys

4.4. Education, Social Mobility and Urbanisation

Education formed one of the important aspects of POLONORDESTE policy.

Education and agricultural modernization are seen to go hand-in-hand and as such it is an indispensable basis for rural development. Education however has also a potentially negative aspect in that, for the well educated, rural life comes to be seen negatively against the attractions of the city. Education policy therefore can result in consequences which were entirely unintended by the State.

According to Cavalcanti (1982:229), education is one of the survival strategies used by households which has ambiguous implications for their "peasant" status. The consideration of education also shows the extent to which the State's presence in the area is shaping peasant survival strategies. As the main supplier of non-agricultural jobs in small towns and rural areas of the North-East, the State employs the majority of non-agricultural workers with certain level of education and parents educate children to get these jobs.

Most parents have little formal education and employ all their efforts to have children educated, because education is considered a mechanism through which living standards can be raised. When farming households can afford to have wage-labour, they send children to school. As a result, children have received more education than their parents, as shown in table VI.18. While 44.2 per cent of parents are illiterate and 33.3 per cent have not completed primary education, 29.2 per cent of their children have completed primary school, 4.8 per cent of them have carried on studying through secondary school, leading in 1.2 per cent of cases, to a university degree. Migrant children are slightly better educated than resident children. Their indices of illiteracy are lower and they are provided with more years of education.

TABLE VI.18 - NORTHERN AGRESTE: PARENTS' AND CHILDRENS' EDUCATIONAL LEVEL (column percent). PANEL DATA, 1985.

Educational Level	Parents	Resident Children	Migrant Children
Illiterate	44.2	19.1	16.4
Incomplete Prim. School	33.3	43.5	34.9
Complete Prim. School	12.0	15.5	27.5
2nd Phase of 1st Degree	5.0	13.8	9.6
Secondary School	1.1	4.8	4.9
University	0.2	1.2	2.8
NI	4.2	1.8	3.9
Total (%)	475 (100.0)	880 (100.0)	636 (100.0)

Source: POLONORDESTE/PIMES-UFPE Surveys

Education is a strategy which is used by smaller and larger households simultaneously (Cavalcanti, 1982:234). When they do not have land or own just a small plot, education is an instrument to be mastered to get better job opportunities in nearby towns or when children migrate. The daughter may be a

teacher in the local school or a civil servant. Families with the largest landholdings provide their children with more years of education. Because there is no certainty about the future, their children were prepared to have a non-agricultural occupation, and thus, it is worth providing them with education.

The benefits which the peasant families can get from education are perceived as extremely important. If their children remain to get a living from agriculture, an education will prepare them to better understand the functioning of bureaucratic, commercial and financial organisations. Their continual contact with these organisations has shown them that better educated people have access to the opportunities provided by those bodies. Education is also perceived as an important means of getting better jobs if they move out of the area. They know, through contacts with migrants, of the need to be skilled workers or to have a profession before migrating in order to get a better position in the big cities. They know that migration is a sort of ritual to be performed sooner or later by some of their children.

In an earlier study, I analysed the value placed on the school by parents living in rural areas. The main question was: why, for them, was children's schooling important? I arranged their answers into four main groups: Firstly, schooling makes their children literate and numerate and this makes life easier. For them, "it is disgraceful to be illiterate". This was also related to the possibility of children voting. Until recently in Brazil, participation in the electoral process was restricted to literate people. Secondly, the school provides the knowledge necessary that everyone needs to face life. For them, a better educated person is more able to solve any kind of problem. Thirdly, schooling is important because it skills children for better jobs and, consequently, for earning a living. This view implies a negation of the rural way of life and high status of urban jobs; and, lastly, education is seen as good in itself. When speaking about the value of formal education, parents say that "education is the best legacy that the parents can give to the children", or that "education is a kind of inheritance that

parents can give to their children and this legacy will never come to an end" (Fonte, 1982:51-54).

Parents' aspirations about the education of their children reveal that they perceive education as a means through which social mobility may occur. Education is an important device for mobility, and it has been used by local populations to get jobs which the State creates. Increasing numbers of schools require, as a consequence, more jobs in the education sector as well as in other sectors. The fact that, in most of the small municipios, the State is the main employer makes the population more dependent on the State, as well as on the political mechanisms operating locally.

Although since 1969 the Brazilian Constitution guarantees that every child will receive schooling from the age of seven to fourteen, this is rarely achieved, especially in rural areas. Table VI.19 presents data on the schooling situation of school age children in 1980 and 1985. The data show that there were some improvements in schooling: the percentage of illiterate children was reduced from 15.9 to 7.1 per cent and the number of children attending school increased from 73.2 to 82.9 per cent²⁵. Aiming to improve the level of education of the rural population, the POLONORDESTE included education among its main lines of action. The Project increased the number of classes by building schools, providing specialised courses for teachers and providing complements to teachers salaries. Targets for school construction, repair, equipment and teacher training were exceeded. This was attributed to the performance of the State Secretariat of Education, in spite of the problems of late release of budgeted counterpart funds. As with health, the staffing of project schools depended on teachers trained in the community. Because the low salary level, only very poorly trained local people are likely to be available as teachers. Teachers have often only finished second grade themselves.

²⁵ According to data from the Demographic Census of 1980 and Secretariat of Education estimates, the rate of schooling among children (between 7 and 14 years old), for the Northern Agreste as a whole, was 70.8 per cent (PIMES, 1980).

TABLE VI.19 - NORTHERN AGRESTE: SCHOOL SITUATION OF CHILDREN BETWEEN 7 AND 14 YEARS OLD (column percent). PANEL DATA, 1980/1985.

School Situation	1980	1985
Illiterate	15.9	7.1
Attending	73.2	82.9
Leave	10.9	7.1
Total (%)	459 (100.0)	339 (100.0)

Source: POLONORDESTE/PIMES-UFPE Survey

If physical targets were met through the construction of schools and though service delivered may have flourished for a few years, just as for health posts, Tendler (1988:22) states that, "the usual problems of flagging political interest and severely reduced operating funds for salaries and supplies ultimately undermined these activities". In fact, in education, low teacher salaries, the low educational levels of teachers, apart from the use of political criteria for hiring and firing teachers, created insuperable obstacles to improving schooling. Nevertheless, many people felt that the project had made a good start in improving educational opportunities open to rural people. However, the emphasis was in the formal education of children and not in professional or adult vocational education "to improve labour productivity".

Municipal governments are obliged to provide first degree schools but they are very often unable to maintain teaching at the appropriate quantitative and qualitative levels. State governments are responsible for providing secondary education. They also provide some primary schools, but rarely in the small municipios and rural areas. Teachers in the Municipal Schools do not normally complete the first phase of primary education, whereas the State school teachers have completed the secondary school and some of them have a degree or are doing a University course. A teacher's salary is generally very

poor, but the municipal teacher receives worse remuneration than that of the state teacher.

To a certain extent, the perception of the positive contributions of project health and education components suggests, as Tendler points out (1988:23), "that something was better than nothing." Though the judgements in favour of health and education may not reflect upon the quality of implementation of these components, they nevertheless are consistent with the findings that education and health, when they are supplied, are "more beneficial and accessible to [rural] poor than credit and other agricultural services" as stated in a Bank assessment of the North-East projects (World Bank, 1983:58).

State educational policy has received the strongest support from the local population since it fits in well with survival strategies already used by peasants. The first time that children go to school (normally between seven and ten years old) coincides with their entry into agricultural work. Therefore, they are part-time peasants and part-time students. However, schools in rural areas often do not go further than the fourth year (the first phase of the first stage - "Primeiro Grau"-which corresponds to the former "primary school"). To finish the second phase of the first stage (which takes four more years) they must go to large villages or to the nearest towns. Secondary school only exists in towns (sede de municipios), and only better-off farmers can afford to send their children to them.

5. Conclusion

The purpose of this chapter was to discuss socio-economic and political effects of State action at local level. How did public policy choices affect private choices? Or, more specifically, how did small farms respond to the alternatives created by State intervention in Northern Agreste region? Some of the main conclusions about the cumulative social impact at local level, which will be

discussed in the following section, are to be regarded as tentative answers to these questions.

The IRDP-AS-PE, like other Integrated Rural Development Projects, benefited some rural dwellers but, as pointed out by Grindle (1986:188-189), it has done so at the expense of more penetration of the State in rural areas and an increase in the State's capacity to co-opt and diffuse demands made by the rural poor. At the local level, bureaucracy constitutes one of the main structures linking State and village. In this way, this State's presence maintains the peasantry and controls it. Furthermore, through the conferring of divisible and particular benefits, the State allowed peasants to seek public policies as a matter of personal self-interest. The State bureaucracy created grateful clients – people who owe their special fortunes to public officials who choose them, from among competing claimants, for privileged access to resources and improvements. This is clear in the case of POLONORDESTE where, as we have seen, state employment and patronage strengthened clientelist relations. As Bates puts it, “State intervention, excess demand and the conferral of privileges are part of the political process by which public programmes create vested interests in rural development policies” (Bates, 1981: 99).

The choice of policy type determines the conditions of individual choice in the face of public authority. “Distributive policies” (including credit, irrigation facilities, dams, transportation infrastructure, education and health services, etc.) frequently provide benefits to groups of recipients at little cost to themselves. These policies are the mainstay of patronage politics because they make benefits available generally to the population. Although the benefits of distributive policies are freely available to the target population, the resources are scarce to society and thus become exceptionally valuable to beneficiaries. In this way it is not surprising that individuals attempt to appropriate these benefits to themselves. Usually this is done by controlling the intermediary institutions that distribute the benefits. As we saw in the case of the Northern Agreste region, the weakening of peasant organisations, which was a consequence of

patronage, inevitably lead to an individual rather than collective response to the opportunity structures created by the State. Thus, peasants were more interested in securing individual livelihood than acting collectively to defend their common interests.

While there is no doubt about the political utility of the programme in helping the government in power to organise political support in the countryside, the socio-economic consequences of State policy, as we have seen, were ambiguous. On the one hand, state intervention through POLONORDESTE favoured small farmers at the expense of the traditional landed elite. State intervention provided to the small farm sector access to technology, capital, market facilities and infrastructure, resources which historically have been appropriated by the large farm sector. On the other hand, the implementation of the agricultural components of the project selected as a main beneficiary that group of small farmers with a sufficiently high resource endowment, especially land, to respond to incentives to increase their marketed surplus. It seems that the project became primarily a production strategy in which the principal objective was to reinforce the productive role of the small-farm sector within the overall economy, rather than to improve the income position of the small-farm household as a whole.

Although the case of the Northern Agreste project suggests that it was possible to improve the economic conditions of small farmers or even of households whose only access to land was through sharecropping or rental arrangements, this was more problematic than focusing on households with "adequate" and "titled" landholdings. The project's failure to solve the problem of shortage of land in the small farm sector allowed the maintenance of a basic obstacle to the intergenerational reconstitution of small-farm households as full-time family farms. As we have seen, the intergenerational reconstitution of small-farm households as full-time family farmers could only be accomplished through land reform or a strong employment-generating national development strategy that draws large numbers of people out of the rural sector. In the context of the

overall scarcity of employment opportunities outside the peasant sector and of land in that sector, and given the limited income gains that can be obtained per hectare, low-cost credit, market expansion and technological innovation seems to be insufficient to enable several small farm households to remain as full-time family farmers or to reduce their poverty²⁶. Nevertheless, peasants have been able to cope with this constraint and, as we have seen, they used diversified strategies which contributed towards their continuity.

There is empirical evidence of the erosion in the traditional forms of labour use, such as *moradores* or sharecroppers and that agrarian capitalist relations of production are highly extended among the landowning population. This capitalisation of the relations of production is marked by the fact that the labour force provided by temporary workers greatly exceeds that of permanent labour. However, when access to land and other resources is limited to sell their labour in the local labour market is one strategy used by the group of small producers as a whole. To these salaried workers, some of them household farms with insufficient land or other means of production for family needs, project impacts were related only to a probable increase in employment opportunities and access to collective goods such as education and health provided to some villages. The State had stimulated the creation of new jobs, permitting some farm households to diversify their survival strategies, for instance, by taking advantage of new opportunities for off-farm income. This participation in the labour market plays an important role in dampening fluctuation in income - fluctuation which frequently undermine the livelihood of small farmers in the long run.

The main strategy used by small farmers to strike a balance between family membership and size of land holding and also to complement household income, is migration. This survival strategy is contrary to the State's interest in preventing out-migration. Another main survival strategy, which is used by

²⁶ These results are similar to those observed by Reinhardt (1987, 1988), in the case study of modernisation strategies in a Colombian peasant community.

smaller and larger farmers, is the education of their children. If they remain agriculturalists, education will prepare them to better understand the functioning of bureaucratic, commercial and financial organisations. If they emigrate, education is an important instrument to get better job opportunities. State intervention in rural area was expanding new employment opportunities within its various local agencies and in the educational sector. And parents educated their children to get the jobs which the State creates. Thus, the State's educational policy fits in well with survival strategies already used by peasants.

Overall therefore we can conclude that the case study of a POLONORDESTE's project implementation and outcomes seems to confirm some of the main arguments of new institutionalism. In the light of this view development studies must deconstruct the notion of intervention as one involving active and rational States and passive, and maybe recalcitrant recipients and grant that intervention is itself a drawn-out and complex social process involving many agents. These agents must be seen as having their own understanding of their situation, their own expectation of change, and their own strategies for securing such objectives. The central concern of such an approach to development studies is with the exchange between structures and agents: in particular the ways in which agents make up their social worlds in routine process of social life. This implies a greater recognition of cultural-institutional diversity and recognises not only the rationale for the conservative or predatory behaviour which inhibits reform, but also the possibility of positive change resulting from a range of individual actions.

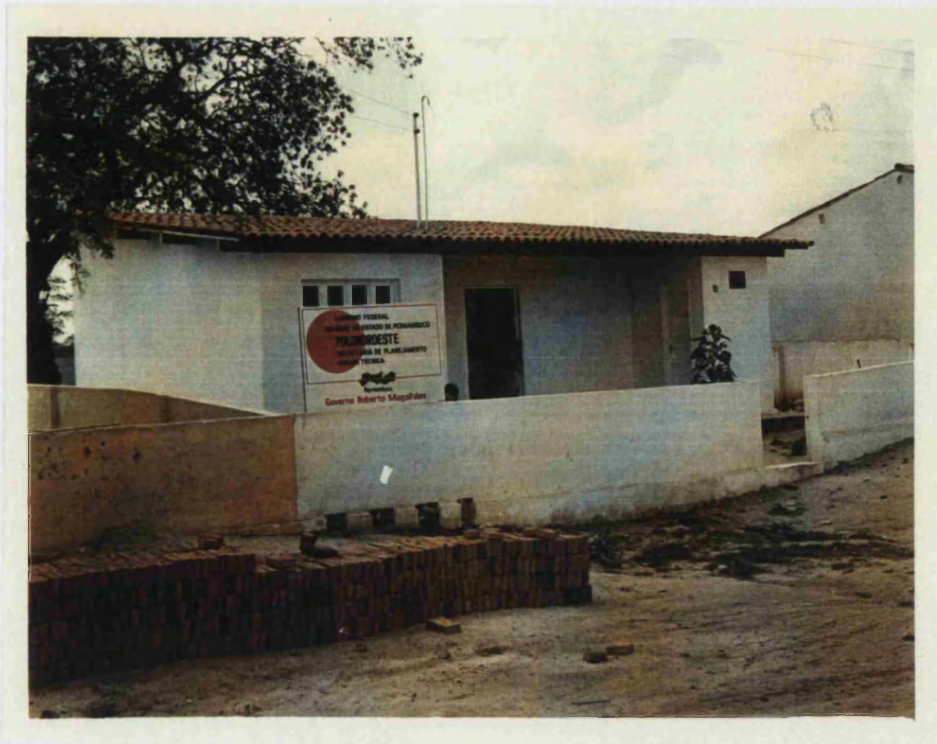


Plate 1. A POLONORDESTE Health Post in a Northern Agreste village



Plate 2. Supply of Water in a Northern Agreste village with POLONORDESTE resources



Plate 3. A small Dam constructed with POLONORDESTE resources in the Northern Agreste



Plate 4. A feeder road constructed with POLONORDESTE resources linking a Northern Agreste village to the town centre



Plate 5. An artisan cooperative supported by POLONORDESTE resources

CHAPTER VII - CONCLUSIONS: LESSONS FROM THE NORTHERN AGRESTE PROJECT

1. Introduction

This thesis began by noting the limited attention paid by studies of rural development programmes to the way national and local political and institutional environment shape State intervention and its role in agrarian development. The basic aim of the thesis is to highlight a critical issue underpinning the policy-making process that is; the State as a social phenomenon, its role and limits in the management of reforms and the role of intervening agents in shaping the outcomes of State intervention. This conclusion summarises the main findings of the study and returns to the theoretical issues to which I referred in Chapter II.

The analytical model adopted in this thesis is the *new institutionalism* approach in development theory¹. This approach retains the rational choice neo-classical axioms of methodological individualism and rational utility maximisation. Under the rational choice approach the State is analysed as an arena in which outcomes result from the pursuit of rational interest by individual politicians, bureaucrats and others actors. Nevertheless, *new institutionalism* emphasises the institutional context within which individuals' preferences are determined. Here individual and social rationality need not correspond, creating situations where power can be systematically used for private gain, and dominant social groups will support autocratic or predatory institutional arrangements. The core argument of new institutionalism is that institutions provide the mechanisms whereby rational individuals can transcend the tensions between individual and social rationality. Since the State is a central part of the institutional complex, given its capacity to stabilise or transform institutions, it has a pivotal role in determining the path of development. However, it is argued that the capacity of

¹ Important contributions to an assessment of the *new institutionalism* are offered by Harriss, Hunter and Lewis (1995) and Ostrom, Feeny and Picht (1988).

the State to promote equitable development depends upon the nature of the States own institutions.

Applying this theoretical perspective to agrarian problems and to the question of State policy leads to a fuller appreciation of the complexities of the intervention processes. It emphasises the theoretical importance of considering differential responses and outcomes to intervention, and exposes the limitations of highly generalised models. It points to the need to examine how policy is transformed during the process of implementation and stresses the value of undertaking case studies of the social impact of particular forms of State intervention at the national and local levels. New Institutionalism, rather than insisting on one identical projection for the economic role of the State in all developing countries, seeks to incorporate in its analysis the historical context in which the State and its policies are situated. It also highlight the primacy of *politics* as a central determinant in the development path that is followed².

This argument is illustrated through the analysis of a case study of policymaking, implementation and outcomes of the Integrated Rural Development Project in the Northern Agreste region of Pernambuco state. Although this study is restricted to a relatively small geographical area involving a project within the larger Programme for the Development of the Integrated Areas of North-East, it provides us with a number of findings which can be further analysed in terms of their theoretical and practical implications.

In this conclusion, I put together the main findings of the thesis in relation to the following points: first, how pre-existing political and institutional environments

² The new institutionalists recognise that the creation of economic institutions takes place not on the market level but rather within the political arena, in which some are endowed with greater power than other. The image here, as put outs Bates (1995: 42), "is that of economic actors, frustrated in their efforts to transact in markets, structuring non-markets institutions that will enable them to transcend their dilemma and thereby attain welfare-enhancing outcomes." The fact is that non-market institutions are often created in the legislature or by economic actors who anticipate the appeal of others in such political arenas. The Sate has a particular importance in setting and enforcing property rights, contract law and regulating production and exchange of commodities and other economic institutions.

shape the strategic political motivations of policy-makers and the policy process; second, the importance of the local institutional environment and actors – both public and private – in shaping the economic and political outcomes of a rural development policy. Finally, I will discuss the long term limitations of the programme approach for solving problems of small scale agriculture and rural poverty and draw out some policy implications for State intervention in rural development.

2. Policymaking and Implementation: The Institutional Environment and the “Rules of the Game”

Though the axioms of methodological individualism and rational utility maximisation appear to be useful in illuminating certain kinds of political behaviour, new institutionalism emphasises the importance of the institutional context by reason of its key role in determining the way in which individuals’ preferences aggregate into social outcome. With this renewed emphasis on social structure, the institutions of political life are no longer seen merely as a set of constraints within which individual politicians and bureaucrats rationally maximise their utility. It is the institutional environment that defines “*the rules of the game*”³ which determine the values of outcomes which can be sought by alternative courses of action” (Bates, 1993: 140). Thus, to explain the direction of the major rural development programme implemented by the Brazilian State under the military government I had to begin with a description of the political and institutional environments in which the policy process takes place.

I shown in chapter III how centralised and relatively autonomous State framed the policy process under the first phase of the Brazilian military regime. Because

³ According to North (1995: 23), institutions determines the rules of the game of a society, or more precisely, they “... are the humanly devised constraints that structure human interaction”. Nicholson (1988: 4) states that “institutions affect human choice by influencing the availability of information and resources, by shaping incentives, and by establishing the basic rules of social transactions.”

the military came to power in 1964 with the declared intention of rooting out "corrupt" old-style politicians who had relied on patronage to build and maintain political support, and instituting "rational government and policy-making", to the exclusion of particularistic considerations, predictions were common in the early years of military government that the last remnants of clientelism would soon be swept away (Cammack, 1982:54). However, during the 'democratising' period (1974-1985), the influence of the technocrats declined and the military began to cultivate its regional and social bases more systematically. Although the bureaucracy continued to retain a central role in the policymaking process it also became an instrument of co-optation and a source of patronage.

As was shown in chapter III, the POLONORDESTE was launched in 1974, within the policy guidelines of the II PND, as one of the efforts made by the military government to deal with two of the biggest problems of North-East rural areas: poverty and lack of agricultural modernisation. The strategic political motivations of policy-makers at national level were clear. If successful, the programme could be used to argue that the military regime's economic model was accessible to all classes and was an apt vehicle for social as well as economic development. Thus, a successful rural development programme for the North-East would be especially effective in the military's search for legitimacy, as it could be used both as a response to national and international criticism and as an affirmation of the regime's superiority over previous governments.

Frequently, however, the resources that political elites needed to achieve their ideological and economic goals are also the resources they needed for building and maintaining political support. The electoral support from North-East political elites was of great significance for maintaining the appearance of government majority at state and federal level, in the electoral cycles of 1978 and 1982⁴. This period coincided with the elaboration and implementation of POLONORDESTE

⁴ In fact, as Hoefle (1985: 27) argues, the small-town politics of the country were of great significance for maintaining the military regime in power. In 1978 and 1982 elections, the interior votes outweighed the votes of the capitals, and the North-East with its numerous small states helped maintain the appearance of a government majority at the state and federal level.

and this fact is important to explain its outcomes. The changed political atmosphere during the 'democratising' period led politicians to start courting directly the large rural constituency in the North-East – in place of indirectly through programmes and subsidies benefiting powerful landowners who, in turn, could deliver the votes to their large captive peasants. But, because of the lack of political mobilisation of the target population for effective demand making, their capacity to benefit from government policy rested on the congruence between their needs with the predominant economic and political government goals.

As was shown in chapter IV, most of the components included in the project shared characteristics that made them politically appealing, especially to the political rulers wanting to show their constituency that they were concerned about poverty. Elected local and state level leaders - the governor, legislators and mayors - who increasingly viewed small farmers as an important constituency, were the most influential proponents of project implementation. As policy moved from the high policy planning stage into operation, and investments were made and allocated in a specific spatial context, the primacy of the governors and local politicians as the key political actors within the states appeared and influenced policy outcomes.

In short, the evidence provided by the analysis of project implementation (chapter IV) suggests that, even in more centralised regimes, the policy process typically takes place in a number of different arenas and channels. Public policy ideologically shaped by elite orientation is altered in the process of implementation as it encounters a reality that is hard to control - for example, resource constraints and limited capacities of the local bureaucracy or resistance of the target population. The empirical evidence seems to show that ideology and technocracy are most evident at the level of goal-setting and in the planning process, while interests politics and patronage are most evident in the capture of "projects" and in the shaping of day-to-day administration and implementation. This seems to indicate that central States often have more

autonomy to plan policies than to implement programmes. Nevertheless, it was during implementation and in the actual distribution of State resources at micro-social level that the disparity between declarations of intent by State leaders at national level with what was done at local level has been most evident. This leads us to suggest that, once the political decision to reform is taken, issues surrounding implementation constitutes a major determinant in the fate of reforms.

Our analysis of project implementation (in chapter IV) seems to indicate that it was the political interests of elites at all government levels and their lack of a real commitment to the target population or the aims of the programme which led to a major source of bureaucratic ills: the failure of political leadership to provide proper direction to the bureaucracy. In fact, as we have seen, politicians do not delegate to technocrats control over policy making and the power of implement reforms. The *technocratic* approach – in which the bureaucracy and policy-making apparatus are the focus for explaining policy outcomes – therefore fails to accord with the political reality captured in this case study. Moreover, the policy process did not fit into the kind of planning or command and control process implicit in State centred theories. Interest group theory – which provides a far more decentralised conception of politics - offers a commonly employed alternative. However, one clear finding in our case study is the degree to which the intervention of interests groups fails to account either for the initiation of the policy or for its implementation.

It also become clear how political power and political institutions shape development policies. The choices made in the policy process reflect neither the free play of markets forces nor popular political choice, but rather the sometimes conflicting purpose of political elites. State elites have ideological and economic goals which are shaped by a set of factors which form the environmental context and circumstances within decisions are made. But they also have personal goals and want to remain in power, and they manipulate State resources to secure

their political goals⁵. The policies they choose may therefore represent optimal solutions to political problems. As Bates (1988: 244) points out,

"A major reason why politically rational choices are not economically optimal is that expenditures that represent economic costs might well be regarded by politicians as political benefits".

This leads closer to the core problem which is *the political origins of economic development*. There is a tradition in political science that posits that political entrepreneurs are driven by the desire for *power* in the same way that economic entrepreneurs are driven by the desire for *wealth* (Lasswell, 1960: ch. 13)⁶. Because politicians want power, they are more concerned with using public resources in a way that is politically useful than they are with using them in a way that is economically efficient. However, a key determinant in the behaviour of politicians is the structure of political institutions and the rules governing elections. In electoral systems, numbers count; political incentives induces efforts by politicians to secure majorities; and politicians will defend policies that favour the numerous small at the expense of the 'national interests'⁷. Therefore, the approach that is required to explain the outcomes of the POLONORDESTE is one that looks at this rural development policy as part of the whole mechanisms employed by government in its efforts to secure political control over the rural population and thus remain in power. This is not to say that the effects of public policy are inevitably negative, but that, to the extent that those policies are determined by nonmarket forces, they have the potential for becoming increasingly distorting in the absence of careful monitoring and control of policy measures.

⁵ As Bates (1983:146) stressed, "politicians ... selected economic policies not out of a regard for their economic merits but out of a regard for their political utility; economic inefficiency ... can be politically useful".

⁶ Cited by Nicholson (1988: 29).

⁷ This is a crucial argument developed by Bates (1995) to show "the necessity of embedding the new institutionalism within the study of politics".

3. The Outcome: Private Solutions to Collective Problems

The data concerning Northern Agreste farmers analysed in this thesis has shown that, although the weak political organisation of the peasantry made the programme vulnerable to manipulation by political interests at all government levels, there is no reason to automatically assume a negative relationship between State involvement and small-scale agricultural production⁸. Rural development policies promoted for political reasons could also be important instruments for improving the social and economic life of rural societies.

Therefore, if it is true that the outcomes of State intervention are also influenced by choices of local level actors, we cannot ignore the crucial role of the State in the agrarian processes through its influence on key economic institutions in the rural sector⁹. It appears likely that a multilevel approach, in which public choices interact with individual choices, has a considerable potential to explain outcomes of State policies.

3.1. Economic Outcomes: Some consequences of Risk Aversion

To understand how peasants respond to State intervention it is important to understand peasant rationality. As we have seen throughout chapter V and VI, there is evidence that Northern Agreste peasants are not as adverse to change as sometimes appears, but they do estimate their possibilities of success and they try to avoid risks as much as they can. They calculate the costs and risks involved in the process of getting loans from banks, in the adoption of new crops or technology, and they play an active role in selectively using it according to

⁸ That is why Fenichel and Smith (1992:1323) suggest that, "when judging economic rates of return, sunk costs for political overheads should be excluded from the analysis". The separation of productive costs from political costs is difficult but such a division makes possible an assessment of the economic or social efficiency of particular investments

⁹ Here I am using the concept of economic institutions given by Hoff, Braverman and Stiglitz (1993: 1), which mean "a public system of rules that define the kinds of exchanges that can occur among individuals and that structure their incentives in exchange". These includes markets and property rights, system of land tenure and other systems of exchanges that are determined by implicit contracts or social norms.

their interests. Thus, there were some peasants who did not want to work according to the project's expectations. However, they recognise that modernisation is an important achievement and they have tried many different alternatives to improve living conditions.

“While peasants may be rational, responding to market forces, they are not fully informed about the consequences either of their actions, or the institutions through which they operate.” This in itself, according to Stiglitz (1989: 23), could provide part of the explanation “why institutional rearrangements that increase productivity are not adopted.” Although individual peasant families may be highly efficient – even individually maximising – when allocating their resources among various production activities, they pay far more attention to risk and uncertainty than free-markets economists presume¹⁰. Popkin (1988: 247) suggests that “the concern with risk means that improved insurance or welfare schemes may do as much to increase production as education or technology will.” The economic benefits of institutional solutions to these problems were ignored by most free-market economists.

The influx of capital provided by massive State intervention created opportunities for higher incomes, and some small farmers appear to have sought to exploit these opportunities. Therefore, as it was shown throughout chapters V and VI, there is some evidence that the causes of the relative success of small farmers in engaging in commercial farming might be linked to their access to rural credit, market expansion, the use of an effective extension service operating in some of the project areas or the adoption of more productive techniques. State intervention provided the small farm sector with access to technology, capital,

¹⁰ For market-oriented economists, development is a produce of efficiency and grow, and they are resistant to be interested in rural institutions other than the markets. Since economic forces naturally lead to development, lack of development can only be attributable to lack of resources or harmful government intervention. An example of the assumptions that market economists used in examining peasant agriculture is Shultz's *Transforming Traditional Agriculture*, in which he emphasises the responsiveness of peasants to markets forces. For Shultz (1978: 5), the basic problem of farming in the developing countries is improper incentives for farmers. By adopting policies that confound the operation of markets, Third World governments undercut the productive potential of their farm population.

market facilities and infrastructure, which historically have been appropriated by the large farm sector¹¹. The State's credit and inputs have advanced the State's control over production decisions, while providing peasants with relatively cheap access to credit and inputs needed to stimulate intensification of production and to break the control of usurers over the village. Large farmers were excluded from most of the programme benefits because a project design that was of practical use mainly to small farmers. As a result the project did not follow the course of many untargeted agricultural policies, in which subsidised services and inputs has ended up largely in the hand of the landed elites.

As was shown in chapter V, the overall economic outcome of State agricultural intervention in the Northern Agreste region was mixed. Although the State largely failed to change the very low level of technology in the region, the adoption of technology became much more widespread among small farmers, probably, as a result of the extension of credit and technical advise available to them. There also was an increase in the gross agricultural output of small farms over the period of project implementation and the tendency was towards transformation from subsistence to commercial farming. As this chapter demonstrated, a large proportion of total agricultural production among the sampled farmers originated on farms under fifty hectares and this proportion increased along the project years. On the basis of the data analysed, we can assert that many small producers became quite integrated, supplying markets with food crops as well as with high-value crops. Their replication of the strategy used by large farmers, that is, the production of more lucrative crops, has show that, with their "own price" response, they were able to defend their incomes against the overall market conditions for food crops. Furthermore, they expanded the area devoted to crops and planted pasture, suggesting that a

¹¹ A study of the adoption of agricultural practices by small farmers in the Brazilian state of Minas Gerais found that road access and the distance of the farm from the town were two of the most important factors in determining adoption by small farmers of high-value crops and productivity-increasing practices. Two other important determinants of adoption were the degree to which farmers marketed their food crops or produced cash crops, and tenancy arrangements. The role of information and learning in bringing about adoption was also significant; the cumulative number of visits to farmers by extension agents had a positive impact on adoption.

more intensive use of land was taking place. This record is certainly not compatible with any generalised claim that the State is an obstacle to agrarian development.

Moreover, the data analysed in chapter V seems to indicate that State intervention has favoured small farmers at the expense of the traditional landed elite. As was shown, the tendency towards declining average farm size and the increase in the proportion of micro production units did not involve fragmentation of "minifundium" farms themselves. On the contrary, they increased their average area and there was a clear trend in the direction of reduction of farmland operated by medium and large farms. The availability of capital items by categories of farm gave us a rough indication of the development of productive forces and of farmers' investment patterns in structures, equipment and animals. Despite a pattern of ownership biased against smaller farmers, according to the indicators chosen, small producers have prospered, relatively speaking, compared with larger farmers.

Nevertheless, not all aspects of the changes among small farmers were equitable. There are at least two major groups among small farmers in the region: those who have secure possession of enough land to allow, with provision of agricultural inputs, an on-farm income sufficient to give reasonable livelihood to the household; and those household whose holdings are so small and insecure that the project's provision of low-cost credit, market expansion and technological innovation and so on, seems to have been insufficient to enable them to avoid rural proletarianization or to reduce their poverty. Those small farmers, who make up the higher peasant strata in the region, are those who already have some capital and the possibility of accumulating more. It can be assumed that it was this group of "enterprising" small farmers who benefited from the State's policy to stimulate growth in marketed agricultural output, who has at the same time become dependent on State-sponsored programmes.

As shown in chapter VI, that the main problem of the State's modernisation strategy was the large segment of landless rural population or some farmers without "adequate" landholdings or secure properties right in land that had been excluded by the project's agricultural components. To these wage labourers¹² and some household farms with insufficient or insecure land, or other means of production, project impacts were related only to a probable increase in employment opportunities and access to collective goods provided to some villages¹³. The non-interference in the structure of land-distribution, has as a consequence that fact that agricultural incentives were of little use to some peasants in the lower strata.

The atrophy of the land component in the project obstructed the most important factor shaping the extent and depth rural poverty in the region: the unequal distribution of stable access to land and the shortage of land in the family-farm sector. However, the project seems to have contributed to improving land titling services, assuring the legal rights on land of considerable number of smaller farmers. This political institution – land rights – is considered to be an important element in the development process because secure properties rights make it in the interests of private agents to act in ways that are socially beneficial. Accordingly, land without property rights will not be used efficiently. Farmers without secure lands rights may fail, for example to switch to permanent crops or

(Cited by Tendler, 1988: 20).

¹² According to Harriss (1988: 292), the extent to which labourers are ignored in considerations of "rural development strategies" (and also in "studies of rural development") is "remarkable". Although international development agencies identify rural labours and marginal farmers as one of the targets groups requiring special programmes, their interests tend to be neglected or attempts are generally vague proposals concerned to rural works programmes.

¹³ There is some empirical evidence that, as Tendler (1988) suggests, social interventions tend to be more favourable to the poor because of the more public-good nature of education and health, while agricultural intervention tends to provide private-goods like credit and extension which can be captured disproportionately by specific groups of farms. Although political influence is important for defining locations, investments in infrastructure like roads, water supply and sanitation are likely to benefit everybody indiscriminately and its consumption could not limited to a particular group.

to adopt new technologies (such as irrigation). They may underinvest in land, fearing that the returns to their investment may be appropriated by others¹⁴.

Shortage of land results both from fragmentation due to the inheritance process and also from the process so-called "pecuarização" (cattle) and the substitution of arable cultivation on large farms by permanent pasture. Increasing demographic pressure on existing lands causes households to diversify their economic activities. There are small markets in the urban peripheries, especially in the skilled production of ceramics, embroidered lace, ready-made articles of clothing (called "sulanca") in which some peasants themselves or members of their family are engaged. To complement the family budget, husbands and sons are also engaged in seasonal migration to plantations or larger urban centres. They supplement their income by becoming traders or, when they are vehicle owners, transporting people and commodities to and from the community. Thus, some peasants have been able to use diversified strategies which have contributed towards their continuity.

Despite the State's interest in preventing out-migration, the evidence provided throughout chapter VI shows that the main strategy used by small farmers to strike a balance between family membership and size of land holding and also to face their socio-economic constraints is migration to urban centres. Another main survival strategy, which is used by smaller and larger farmers, is the education of their children. For them, education is an instrument to be mastered to get better job opportunities in nearby towns or when children migrate. Thus, the State's educational policy fits in well with survival strategies already used by peasants.

¹⁴ Fenny's (1988) study help us to understand why there is a demand for State intervention. When people are certain that they will reap the rewards from the costs they incur, then they are willing to manage society's resources in the economically most productive way.

3.2. Political Outcomes: Impact on Clientelism and Collective Action

As was shown in chapter VI, an important nonagricultural impact of the project was the extension of the State's physical presence in rural areas. To meet the project's objectives, State organisations have expanded the number of local offices, employees and degree of bureaucratisation and there was considerable investment offered to small holders. In increasing and creating new job opportunities, State intervention gave opportunities for off-farm income, reinforcing the existing peasant strategy of combining agricultural and non-agricultural sources of income. As we have seen, the wider dispersal of services and growing access of the rural population to education and public health has made rural life more viable, and the gaps between towns and villages have narrowed. The State's presence has also pluralised power at the municipal level, breaking the former fusion of wealth and power in the hands of the local landed elite. Traditional patrons have been replaced by specific patrons operating from within positions of authority in official bureaucracies and organisations. At the local level, bureaucracy constitutes one of the main structures linking State and village.

Notwithstanding, by making the attainment of particular benefits - whether educational and health services for a community, or jobs or access to credit and extension services - the State has increased its control over the rural population. Furthermore, through the conferring of divisible and private benefits, the State allowed peasants to seek their individual interests and limited objectives¹⁵. State Patronage has helped to maintain rural poor divided and made mass mobilisation difficult. Distributive policies are the heart of patronage politics

¹⁵ This finding is consistent with Hirschman's (1984: 98) observations about the character of authoritarian regimes during the sixties and seventies in Brazil, Chile, Uruguay and Argentina. According to him, this major authoritarian wave "definitely attempted to defuse mass mobilisation and to turn the citizens into very private persons. In principle, the formation of co-operatives and other forms of collective action at the grassroots should be incompatible with the very structural requirements of those authoritarian regimes." In authoritarian regimes the mass are demobilised to the greatest possible extent. As Hirschman (1984 :97) pointed out, "Demobilisation means privatisation: everyone is to be concerned exclusively with his own welfare and that of his immediate family".

because they make benefits available generally to the population. However, because the resources are scarce to society they became remarkably valuable to individuals. Typically individuals try to appropriate these public goods to themselves by controlling the institutions and agencies that distribute the benefits. As a result, public policies remain for peasants a matter of personal self-interest. Therefore, rather than focusing their political energies on the collective interest or appealing for collective changes, peasants were, instead, focusing on the securing of private improvements or benefits.

Although this context accounts for the absence of organised peasant action in the face of their problems, I want to look at another explanation for the apparent inability of peasants to act together for their common good or for any end transcending the immediate material interest of their family. The individual's attachment to the family must be the starting place for an account of the Northern Agreste peasants political behaviour¹⁶. The hardships of their lives have forced them to devote almost all energy to their own survival. What this means is that they often opt for individual interests over common interests, and that they do not necessarily act to further their group or common interests. Therefore, it seems be correct to adopt Popkin's assumption (1979:31) that peasants are "primarily concerned with the welfare and security of self and family" and they will usually act in a "self-interested manner" when they take into account the likelihood of receiving the preferred outcomes "on the basis of individual actions".

Popkin (1979, 1988b) point out the difficulties of peasants to generate village insurance or welfare arrangements or to organise to supply public goods themselves. Certainly, all members of peasant societies would be better off where there irrigation, dams, roads, education, health services, etc. But, as

¹⁶ According to Bates (1995: 36), "families" constitutes the most striking example of institutions that offer "generalised reciprocity", that is "institutions in developing world in which people invest resources ... in a effort to create a general fund of goodwill that can subsequently be tapped should a specific need arise". They became important in the absence of effective States, capable of providing public goods. See also Banfield (1965).

Popkin (1988b) argues, rational actors find it in their interests not to contribute to the formation of such facilities. There is thus a central disjunction between the social good and individual rationality. To secure contributions to the formation of public goods people have to be organised. Thus, because Northern Agreste peasants lack formal organisation to act as a group, they were able only to find private alternatives to their common problems. However, it is within the context of State patronage and authoritarianism, allied to local factionalism, that the cautious participation of peasant in politics and in collective action must be understood¹⁷.

We accept that Northern Agreste peasants were making economically and political by rational choices *given the situation in which they find themselves*¹⁸. While peasants may, in many respects, be rational, responding positively to measures to raise market output to market forces, they are not fully informed about the consequences either of their actions, or of the institutions through which they operate. As Stiglitz (1989: 26) points out,

“individuals know more about the institutions and conventions with which they have lived than they know of others in which they might live. The consequence of change are thus uncertain, and risk aversion itself provides some impetus to the preservation of current institutions.”

Thus, at the political level it seems more rational for peasants to request small scale benefits for themselves with politicians or bureaucratic officials, than to make efforts to exert powerful pressure through collective action which would threaten local or regional politicians or their agents. In all situations collective action involves risk and repression. Therefore, it is logically incorrect to equate intensity of need with the likelihood of collective response without considering the ability of individuals to gamble on an improvement in the status quo.

¹⁷ It should be noted here that this situation appears to confirm an important conclusion reached by North (1981: 31-32) in propounding his theory of the State. The main reason that individuals do not rebel against repressive regimes is that the perceived cost are extremely high, and while the potential benefits may also be very high, the chances of success are assumed to be very low.

¹⁸ The new institutionalism stresses the limited information available to different groups and diverse mental modelling of available information within distinct ideologies and cultures, which in turn generates their own institutional arrangements – including also social organisations and social practices (Toye, 1995:62).

4. Lessons from from the Northern Agreste Project: Political and Policy Implications

In spite of the effectiveness of the Northern Agreste Integrated Rural Development Project in delivering some public goods and services to needy rural dwellers, the general economic results of the State's attempts to modernise agriculture using POLONORDESTE as an instrument of intervention in rural areas fell far short of what was planned. These results leads us to point out a key problems facing the State intervention in rural development: efficiency and sustainability. Another related question is the importance of the participation of local actors in State initiatives to promote rural development.

4.1. The Residual Problems: Efficiency and Sustainability

Considering the amount of capital employed, the profits the State obtained from bringing these peasants to modernise was nearly nil. The surplus appropriated by the State in this process was easily consumed by the cost of administering the new services. Thus, in economic terms - in the form of services, credit and investment - the State was probably putting more into the small agriculture sector than it was extracting. As one former co-ordinator of the Evaluation Unit stated:

"Considering the volume of financial resources spent in the region, to say that nothing happened is absurd. Schools and health centres were built, roads were repaired, credit was given, technical assistance was granted. It is clear that the sum of these things has repercussions. However, if these repercussions are compared with the financial and intellectual effort that was made by the programme, it is ridiculous... "

Inefficiency occurs when the return on resources investment is low in comparison with a rate of return that could be possible obtained trough alternative investments or when the high expenses makes difficult to generate gains which could cover the costs of the project. As we have seen in chapter IV, large cumbersome bureaucracies had grown up to implement the programme. Because the key incentive in such bureaucracies was ostensible the expansion of services, performance was often weak and quality control, cost-effectiveness,

and opportunity costs received little attention. It was not uncommon that public agencies became over-capitalised, ignoring comparative advantage, and operating without concern for either production or costs market. This fact generates inefficiency, undermining the economic viability of the project.

Sustainability is the other major concern. In fact, we cannot say that the project brought long term improvement to small farmers in the region. When the money finished, the benefits ended. When POLONORDESTE disappeared, both technicians and farmers complained. As one technician of the Evaluation Unit said:

As an integrated rural development programme you look for the POLONORDESTE, and you do not find it... If you do research today on the producers of the area, perhaps, some will simply remember the logo. Others will remember POLONORDESTE as the health centre, or the school, or perhaps the road. In terms of the volume of resources that was spent much more should remain apart from half a dozen loose pieces."

Sustainability refers to the inability of the State to maintain the investments that have been made. For instance, rural road and water systems, and other infrastructure deteriorate because of lack of maintenance. However, the sustainability problem cannot be blamed on a preoccupation with artifacts rather than to human capital and institution-building. The community based investments particularly health care and primary education were probably sustainable. Tendler (1988: 22) posits that many villagers felt that, because of the POLORDESTE, there is

"... a kind of dormant potential in the village person who had been trained and worked as a health worker during that period, or the health clinic sitting shut with its broken refrigerator, or the closed school building. Some talked nostalgically of the 'excitement' of that period – vaccinating all children, revising the school materials so that they reflected local condition, seeing the teachers respond well to in-service training."

The communities and technicians felt that they were now readier for mobilisation of this potential than before, as soon as an interested government come along and breathe life into the old buildings and trainees. However, extension as was delivered by the project was too expensive to be sustainable in the long-run. At the POLONORDESTE time extension salaries were attractive, staff were being

added, new vehicles and recurrent resources were freely available, and extension could clearly help farms by giving them access to cheap credit. Clearly, the credit programme, viewed as primarily a grant programme, was not sustainable. Subsidised credit could have a mixed of sustainability depending on the purpose for which the credit/grant was used. However, a valued “institutional achievement” was the change in the thinking of extension agents “that it was not unprofessional to work with small farm agriculture” (Tendler, 1988: 25)

Ironically, the governors were still complaining about the lack of long term improvements as a result of POLONORDESTE. At one level, they felt politically compelled to maintain the level of public sector employment and the bureaucracy strength that the World Bank funded programme allowed in the agricultural services and other State services. At another level, They felt that the State, as the leading provider of services, did not gain benefits in the long-run. As a Deputy Secretary of the Secretariat of Agriculture of Pernambuco State stated, “the State benefited in the same manner that the small farmer benefited. When the money finished, the benefits ended”.

4.2. A Missing Element: Beneficiary Participation

Much of the early sociology and anthropological literature focused on how the emergence of modern markets and more intrusive States tended to destroy the efficacy of the local community. As those institutions grew in strength, they undermined the values of reciprocity and ascriptive status on which these communities were organised. Thus, the local communities to lose even their ability to manage their own local affairs. This perception gave rise to two different schools of thought in the development literature. One placed emphasis on restoring the local community’s degree of control over its own fate. This has been variously described as “community development”, “decentralisation”, or “local participation”¹⁹. The second approach was to advance the new nation-

¹⁹ See Stöhr and Taylor(1981) and Chambers (1983).

State as the appropriate vehicle for restoring social control over the economy and direction of change²⁰. Neither of these solutions has been entirely successful. Both the national and local institutions are characterised by inefficiency and exploitation.

In short, the existing institutional context has neither the broad-based participation of the population in the process of choice, nor an institutional environment in which resources are allocated in socially efficient ways that facilitate development. Both the market and centralised political order permit “predatory elites” to create private opportunities that are beyond the control of local communities and existing institutions. Nor are “traditional” institutions immune from corruption. In fact, as Wynne (1988: ch 7) suggests, many of these local institutions were merely older versions of similarly predatory strategies. In fact, the character and contribution of local institutions depends to a great extent on the character of the broader regime within which they exist.

Nevertheless, there is a broad literature that argues that development projects frequently fail without provision of local participation. As a way of assuring that maintenance and operation of various kinds of rural development projects many government have recently turned to “beneficiary participation” or “users groups”. What is called “project sustainability is argued to be closely dependent upon, in the worlds of a World Bank reports (1984),

“fostering the development of grass roots organisations with salient qualities that are embedded in their growth and their relationship to project activities. Desirable qualities center on increasing assumption by beneficiaries responsibility for project activities during implementation, and especially following completion. Such responsibility is fostered by an increasing degree of autonomy and self reliance of the grass roots organisations, plus some form of decision-making input into project activities leading to a measure of control over the management of the project.”

²⁰ See for instance the illiberism latent in a Leftwid (1995) paper. What is required to promote development in the Third World and elsewhere, Leftwid concludes, is not less State, but a better and strong development State that can pursue “market-friendly” policies in such way that even poor households are empowered to participate in development.

What this means is that the World Bank believes that development programmes are more successful when services users or the affected community has been involved in consultation during project planning, direct participation on maintenance and monitoring. However, what type of rural organisation could be harnessed for promoting economic development more directly or how could this kind of organisation be induced in Northern Agreste or elsewhere in Brazil?

As it was shown in the previous chapters, In general, small farmers themselves were conspicuously absent as demanders in the project implementation. Although local level actors and institutions played important in shaping project results, it was unexpected because they were not included in the project design. It is true that State intervention changed what local actors would have done by themselves. Standing behind each local actor was a more centralised government agency – offering financial incentives, providing technical assistance, infrastructure and social services. Nevertheless, a malfunctioning system of State control, based on distant authority which does not take into consideration local conditions, may be worse in terms of resource management and project sustainability than a strategy which aims to improve local systems of rules and collective organisation²¹. Thus, on the basis of the Northern Agreste experience it seems to be clear that long-term success of public policies directed at distribution of wealth and power is more difficult to achieve if people are not integrated into the decision-making and implementation process. As Tandler (1993: 1576) suggests, “the co-participation of local actors in more centralised initiatives can make the outcomes better than they would have been if the State had been working on its own”, because they had “a certain kind of experience, understanding of local markets and production systems”, besides an

²¹ The PAPP programme (Programa de Apoio ao Pequeno Produtor Rural), which replaced POLONORDESTE, included a new component - the community-participation fund (APCR). APCR is a grant fund, accounting for about 15%-20% of PAPP funding, whereby communities gain control over small investments projects - principally, “income-generating” projects like manioc flour mills, collective vegetable plots, input-supply stores, seed banks, and community laundries, but also including small works projects like roads and bridge repairs, etc. This decentralisation of decision-making with empowerment of beneficiary organisations gave new power to rural unions, co-operatives, church groups, and the local organisations (Tandler, 1988: 2)

intense desire for their community to prosper, that the State and central government agencies did not have.

Therefore, my understanding of what works better involves more than focusing on unidirectional movement from central initiatives to local, as occurs in much of decentralisation policy literature and advice. It requires, instead, a particular combination of central and local participation that changes the role of the State (regardless of if it reduces that role) to elicit a new form of local organisations and action. The State can help by providing the legal framework which make possible for local collective organisation to obtain enforceable recognition of their identity and rights within the society²². In addition, institutional arrangements which encourage mismanagement and waste must be replaced by other which force their managers to serve the public interest rather than their own.

Thus, if goals of rural development programmes are the creation of progressive structures and organisations, and not merely the diffusion of technology or the increase of production or productivity in agriculture and reinforcement of individual interests, they can serve as instruments of institutional change. The creation of progressive structures should produce a circle in which people recognise their social obligations because they can reliably expect others to do the same. The political process must be centred on the creation and enforcement of institutions to bridge the gap. Equity-enhancing success hinges on a long-term effort at institutional transformation, supported by a solid, wide-ranging socio-political organisation. This suggests that researchers, political activists and policy-makers also need to take more seriously the role of social movements²³ in general, and grassroots organisations²⁴ in particular, in shaping public policies and their outcomes.

²² Development specialists "seeking a middle ground between the champions of the markets and the defenders of the State, finds in the new institutionalism a justification for basing development efforts on community and civil engagement" (Bates, 1995: 27).

²³ See Alvarez and Escobar (1992). For a discussion on the main debates and issues in contemporary social movement theory see Foweraker (1995).

In order for concerted action - and therefore sustainable economic and political development - to take place, it would not of course, be necessary that individualism be replaced by altruism. However, "rational self-interested" must transcend the short-term calculations of market theory, and recognise the collective obligations and self-sacrifice required to create the social movements which will campaign for institutions based on freedom and competition (Brett, 1995). Rural development programmes that foment collective action can be also effective mechanisms in the creation of social articulation and mass-based democratic regimes. Only in this way can long-term effects of programmes on the distribution of wealth and power in society be considered.

I do not claim to have found the one true way. Rather, this concluding chapter should stimulate continuing efforts by development specialists to rethink the problems of choices confronting people in different parts of the contemporary world. I presume that individuals continually attempt, within the latitudes of choices available to them, to improve their conditions or to avoid more adverse conditions. The relevant normative criterion, however, is to take advantage of opportunities to improve welfare without doing so at the cost of others. How power relationship are arranged varies depending how political orders are constituted. The reintroduction of structures and institutions to the debate by new institutionalism is an invitation to inject into development studies a much richer understanding of politics.

²⁴ See Hirschman (1984).

APPENDIX ONE - METHODOLOGY AND SOURCE OF DATA

1. Introduction

A multi-faceted research approach is used in this study. Quantitative and qualitative studies have been seen as complementary to each other and an integrated approach to social science research methodology has been accepted as having the potential to provide more accurate findings. The research carried out in this thesis follows this methodology.

The collection of information on the implementation and achievements of the project was carried out through unstructured and semistructured interviews, participant observation and informal contacts at project management level and local level. At the same time, the archival sources of the project - initial diagnosis, evaluation and completion reports - and oral histories of participants served as instruments for the recovery of the social history of the project.

The method used to analyse the project's impacts at local level included a panel study with 340 household farmers located in six selected municipalities of the Northern Agreste. This panel study tried to establish the socio-economic situation of sampled households and the factors of production to which they had recourse at the beginning and at the end of the project period studied (1980-85).

The data for the panel study was provided by surveys carried out by the "PDRI-AS-PE Evaluation Unit". In the "Evaluation Unit" research design for "Impact Evaluation" of the Integrated Rural Development Project (PDRI-AS-PE) the data were collected at three points in time in a "rotating panel design". This is characterised by Van de Pol (1988:43) as "a hybrid of panel sample and repeated cross-sectional surveys" where, in the data collection of the repeated surveys, part of the sample remained the same and part was replaced. This methodology for data collection, thus, allowed myself to use a "Panel" research

design as a method for analysing change¹. A panel design refers to a study where observations are collected for the same unit of analysis at two or more points in time. In this way, I selected a sub-sample of 340 farmers from these surveys, using as criteria the existence of the same farm household in both surveys.

The first and second surveys were carried out during the time that I was one of the members of a team working on the research project concerned with the evaluation of "effects and impacts" of the Northern Agreste Integrated Rural Development Project. The research team included mainly agricultural economists and myself as a sociologist (responsible mainly for the evaluation of the Education segment). All of us contributed to the design of the social and economic surveys, in which sampled householder farmers from the six municipalities were studied throughout the agricultural years of 1979/80, 81/82 and 84/85. Some of the results of the two first surveys have been described in "Evaluation Reports" which have been referred to in this study. The final survey (84/85) and the data collected remained without being analysed and evaluated (inexplicably, no contract was entered into to cover the processing and analysis of the final survey).

In January and February 1992, before I began to write the final version of this study, I was fortunate enough to be able to return to the six municipalities of the sample and re-interviewed a small number of farmers sampled in the panel study. In these semi-structured interviews I collected some information that had previously been gathered in the surveys; I did this to test the validity of my data. However, the main purpose was to collect new information on rural-urban migrants, their residential, and employment histories. I solicited their political history and their history of involvement with project components - the cooperatives, rural credit, marketing and rural extension, etc - and their response to experiences as clients of the government. In addition to these interviews, I also carried out interviews with some politicians or local leaders and

¹ The advantage of this method for analysing change is discussed by Kessler and Greenberg

middlemen, focusing on the founding of local institutions and local disputes. Issues covered were local politics, the cooperative societies or other association, and the relationship between market services and the farmers.

Although short, the visit to the municipalities enabled me to collect these oral histories which gave me important new insights into the nature of the economic activities of the farmers and their relationship with the local powers and the state apparatus. All of these provided data which was extremely valuable in understanding the behaviour of rural people.

2. The Panel Sample Data²

The sample data used in the "panel" study came from the POLONORDESTE/PIMES-UFPE surveys undertaken at two points in time: 1980 and 1985. These surveys collected information about the previous agricultural year (1979 and 1984, respectively) in selected Municípios and Farms in two microregions of Pernambuco State - Agreste Setentrional and Vale do Ipojuca - situated in the Agreste Region³. Here the procedures followed in these surveys are described briefly.

The sample design was based on a cluster sampling approach according to which groups of farms were sampled within subregions which are differentiated in accordance with ecological and production patterns. The sampling required the categorization of municípios located in the project area (the primary sampling unit) by physiographic zones (ecological regions) and production patterns.

(1981).

² The content of this section follows closely the description of methodology and sampling procedures given by 'Projeto de Avaliação do PDRI do Agreste Setentrional de Pernambuco', Diretrizes para as Pesquisas de Campo, vol. 4, anexo, 1980.

³ From 1989, a Resolution of the Brazilian Federal Government changed the division of Brazil into "mesoregions" and "microregions" and Glória do Goitá is no longer considered to be

2.1. The Selection of Municípios

The Agreste is a transitional zone between the Zona da Mata and Sertão and is characterized by diversity of landscape over short distances. It is almost the North-East in miniature, with very dry and very humid areas. Due to the diversity of ecological conditions there is differentiation in the composition of agricultural production, which is presumed to result also in great diversification in the social and economic organization of production. The municipalities selected as a sample in this study are supposed to represent the variations in ecological conditions and agricultural orientation among different agrarian sub-regions of Northern Agreste. Each of these sub-regions is made up of municípios which are the smallest administrative units in Brazil on which statistical information is available.

When the sample was defined the PDRI-AS-PE included 31 municípios⁴ situated in the Agreste Region. The município was the administrative unit which served to define the sub-areas. The municípios of the project area were grouped in strata according to (1) their ecological characteristics, and (2) their production orientation. This classification resulted in the identification of five sub-regions.

A) '*Subsistence/Commercial Crop*' system defines an economic transition zone between Mata and Agreste. Thus, sugar-cane is the important element in the economy of this sub-region. In this productive system manioc prevails, followed by a commercial crop (sugar cane and tobacco plants) and multicrops without individual economic importance whether at municipal level or regional level. This sub-region includes the municípios of Chã Grande, Feira Nova, Glória do Goitá and Pombos.

B) The complex '*Livestock/Cotton/Subsistence Crops*', typical of the Northeastern Sertão, characterize this second sub-region. Although it has

pertaining to the Agreste Region. Now this municipality is considered to be part of the "Mesorregião da Mata Pernambuco".

⁴ From the third year of project implementation was included more 5 municipalities. The municipalities included are Bom Jardim, João Alfredo, Machados, Orobó and São Vicente Ferrer.

declined, the cotton, in general hybrid (herbaceous) but with some concentrations of perennial (arboreo), is still an important crop. The subsistence crops, especially maize, beans and broad beans (fava), are a peculiar feature of the cotton production system, as well as the extensive raising of livestock. According to the classification adopted, this zone includes the largest number of municipalities of the region of the project: Cachoeirinha, Cumaru, Frei Miguelinho, Jatauba, Limoeiro, Passira, Riacho das Almas, Santa Cruz do Capibaribe, Santa Maria do Cambucá, Salgadinho and Surubim. These municipalities, with the exception of Cachoeirinha correspond to a longitudinal strip in the north of the state of Pernambuco.

C) In the other half of the Agreste, in the central highway axle, the municipalities of Gravatá, Bezerros, Caruaru, São Caetano, Toritama, Tacaimbó, São Bento do Una, Sanharó and Capoeiras are situated. They represented the '*Subsistence/Livestock*' system, where manioc, maize, and beans are the predominant crops. Livestock is also an important component in this sub-regional economy.

D) In the '*Industrial Multicrops*' sub-region, vegetable production in general, and the tomatoes in particular, are important. Subsistence crops and livestock complement this productive system. This zone is composed by the municipalities of Alagoinha, Pesqueira and Poção, situated in the extreme west.

E) The '*Food Multicrops*' system represents the maximum degree of productive diversification of the Agreste. Besides cotton, manioc, corn, beans and vegetables it has important fruit-growing and some areas with coffee-growing. This zone comprises the municipalities of Belo Jardim, Brejo da Madre de Deus, Taquaritinga do Norte and Vertentes.

Each municipio was attributed a weight, as a measure of its economic size. One municipio from each of the five conglomerates was randomly selected. The criteria chosen as size measures were the following:

- The importance of small producers (<10 ha) in the municipio;
- The density of rural population in the municipio;

- The area with agricultural crops by the total area of the município;
- The number of herds (livestock) as a measure of cattle raising process (pecuarização).

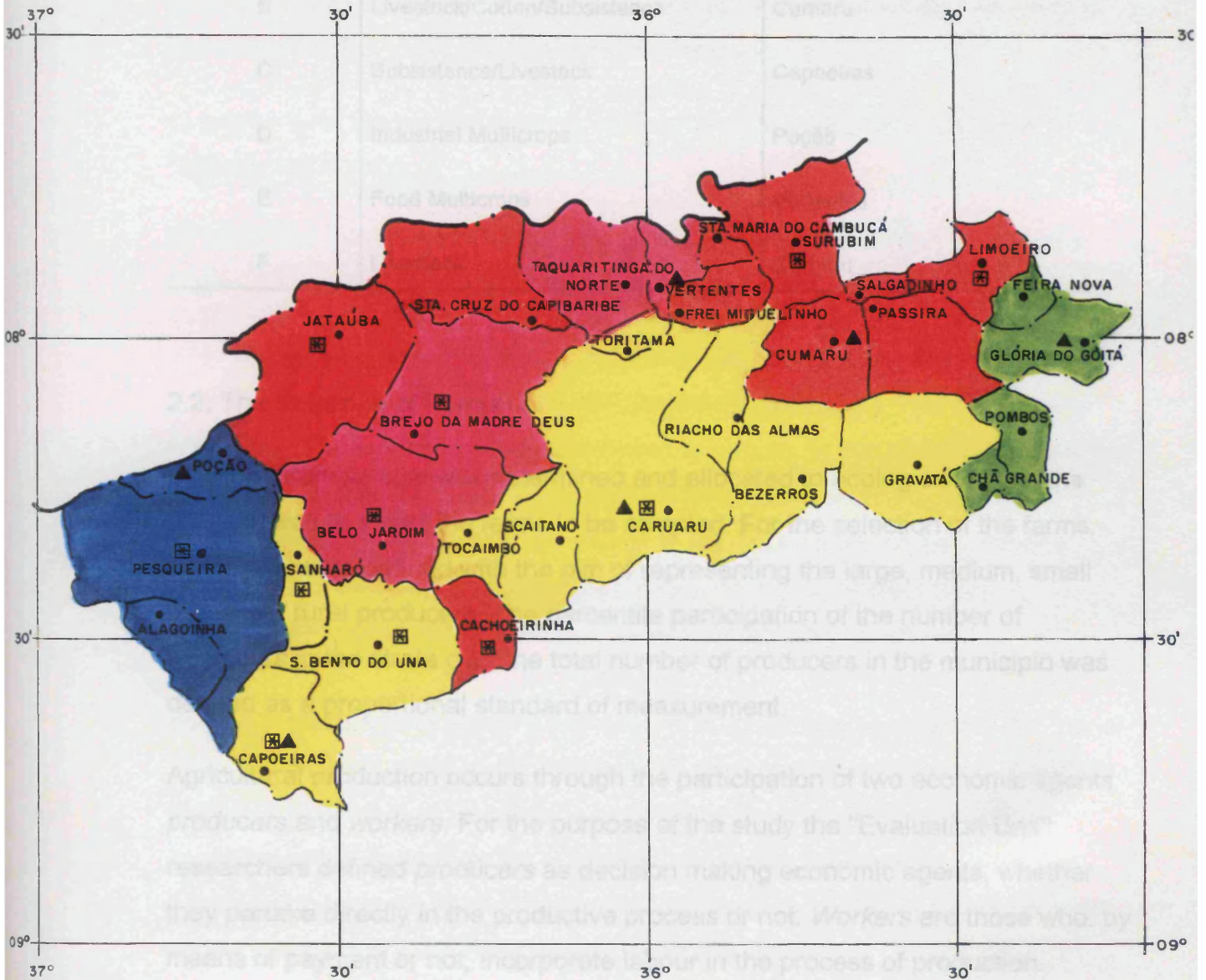
The indicators used for the construction of the sub-regions indicated that livestock is spread throughout the region, although with qualitative and quantitative differences among the municípios. For this reason, it was considered important for the representation of the region to define a sixth conglomerate, which represents mainly "livestock". For this sub-region, the municípios were classified according to their relative importance to cattle raising production in two respects: dairy cattle and cattle for slaughter. For the calculus of the probabilities, it was defined as a measure of the importance of municipal cattle raising in the Agreste region production.

F) The sixth sub-region, which represents mainly "*livestock*", includes the municipalities of Belo Jardim, Brejo da Madre de Deus, Cachoeirinha, Capoeiras, Caruaru, Jatauba, Limoeiro, Pesqueira, Sanharó, São Bento do Una and Surubim.

The municipalities selected for sampling are represent, therefore, differentiated production systems, with specific patterns of use of material and human resources. Each município selected corresponds to one of the six sub-regions of Agreste (see Map 4) as shown in table 1.

MAP 4

NORTHERN AGRESTE - PRODUCTION SYSTEMS AND MUNICIPIOS SELECTED FOR SAMPLING



- MUNICIPIOS SELECTED FOR SAMPLING** ▲
- ▲ Glória de Goitá
 - ▲ Caruaru
- | | | |
|---------------|---|-----------------|
| ■ Sub-regions | A | Glória de Goitá |
| ■ Sub-regions | B | Cuararu |
| ■ Sub-regions | C | Capoeiras |
| ■ Sub-regions | D | Poção |
| ■ Sub-regions | E | Vertentes |
| ⊛ (Livestock) | F | Caruaru |

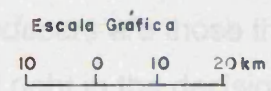


Table 1. MUNICIPIOS SELECTED BY PRODUCTION SYSTEM AND SUB-REGIONS

Sub-Regions	Productions System	Municipios selected
A	Subsistence/Commercial Crop	Glória do Goitá
B	Livestock/Cotton/Subsistence	Cumaru
C	Subsistence/Livestock	Capoeiras
D	Industrial Multicrops	Poção
E	Food Multicrops	Vertentes
F	Livestock	Caruaru

2.2. The Selection of Farms

Once the sample size was determined and allocated to ecological zones, the problem was to select the farms to be sampled. For the selection of the farms, four strata were defined with the aim of representing the large, medium, small and micro rural producers. The percentile participation of the number of producers in the strata over the total number of producers in the municipio was defined as a proportional standard of measurement.

Agricultural production occurs through the participation of two economic agents: *producers* and *workers*. For the purpose of the study the "Evaluation Unit" researchers defined *producers* as decision making economic agents, whether they partake directly in the productive process or not. *Workers* are those who, by means of payment or not, incorporate labour in the process of production.

In terms of access to the land, the producers were classified into two categories: *proprietor producers* and *landless producers*. *Proprietor producers* are those that have a guarantee by law of access to land, with an assured right in the decision about its utilization. In this group we can distinguish the micro, small, medium

and large landowner. *Landless producers* are those who have access to the land by means of permission from a landowner. This access can be through:

a) payment in cash or goods, according to a pre-fixed amount (tenancy, rent);

b) division "ex-ante" of production with the landlord (many forms of sharecropping). The sharecropper pays rent in the form of an agreed share of the various crops (one-half, one-third, one-quarter, etc);

c) payment for the land by working the landowner's land (yoke, "*cambão*" or "*trabalho de sujeição*");

e) those that have access to the land for independent production through the institution of *moradia* (resident workers).

The sample, within the municipios selected, was chosen from among the 6,232 proprietor producers registered by INCRA for the year 1978. The households were taken from the farm units selected as a sample. In this sample, not only the proprietors, but other households living on farms were selected. This is the reason why landless households appear in the data; some families, despite living within a farm, may not have their own land to cultivate but have independent production as a sharecroppers, tenants or moradores.

For the purpose of this study a sub-sample of farms was selected for the "panel study" using as a criterion the existence of repeated measurement in the 1985 survey. The number of households interviewed by municipio in the first and second surveys, as well as the number of cases with repeated measure, are presented in table 2⁵. Farms are classified according to municipios which make up the "systems of production" described in this section.

For the purpose of this study, I stratified production units according to their size into four categories distributed as follows: "micro" - less than 10.0 ha; "small" -

⁵ The number of farms surveyed in 1980 correspond to 10.2 per cent of the total of producers registered by INCRA in 1978.

10.1 to 50.0 ha; "medium" - 50.1 to 200 ha; and "large" - greater than 200 ha. This stratification follows the usual classification for farm size groups in Brazilian literature. The distribution of production units by farm size, according to this 1980 stratification, was used as a classification criterion to tabulate data and to analyse changes for each group of the same households interviewed in two panel waves. The number of households surveyed in the first and second survey, classified by size categories of farmers, as well as, the number of cases re-interviewed in the second wave are shown in table 3.

The under or over-representation of some "systems of production" and of size categories of farmers in the panel sample occurs because the non-repeated cases were dropped. Thus, the data no longer maintained the proportion defined in the sample procedures for the first survey. However, the problem with the use of repeated cross-sectional survey in the observation of change, in which the quality of the sample can be kept, is that some observed differences in the comparison of their results could be more related to differences between the sampled individuals in the surveys, than as a result of true changes. In this way, panel data would be more powerful in the observation of true change, in spite of problems like "drop-out" of informants, and a possible under-representation of distinct categories of respondent.

TABLE 2 - NUMBER OF HOUSEHOLDERS SAMPLED BY MUNICIPIO

Municípios	Wave 1 1980	Wave 2 1985	Cases selected	Drop-out (%)
Capoeiras	100	144	60	40.0
Caruaru	177	135	86	51.4
Cumaru	122	137	64	47.5
Glória do Goitá	60	62	38	36.6
Poção	72	98	33	54.2
Vertentes	102	110	59	42.2
Total	633	686	340	46.3

SOURCE: POLONORDESTE/PIMES-UFPE Surveys

TABLE 3 - NUMBER OF HOUSEHOLDERS SAMPLED BY SIZE CATEGORY OF FARMERS

Farm Size	Wave 1 1979/80	Wave 2 1984/85	Cases Selected	Drop-out (%)
Micro	206	256	88	57.3
Small	208	246	123	40.9
Medium	187	154	115	38.5
Large	32	30	14	56.3
Total	633	686	340	46.3

SOURCE: POLONORDESTE / PIMES - UFPE Surveys

2.3. The Household Interviews

Formal interviews were conducted with the head of household and/or the spouse in resident householders or with farm managers in the case of absentee landowners. The interviews included detailed questions on the activities of each member of the household (inclusively the family members who had emigrated), on land transactions (purchases, sales, rental) and all aspects of farm production. The interviews varied in length from approximately one to two hours, depending on the size of the family and the complexity of the agricultural operations. The interviews were conducted by research assistants under the supervision of members of the "Evaluation Unit" team.

The variables surveyed were grouped in a questionnaire (see Appendix two, which contains the version of the questionnaires applied in 1985 survey) divided in two parts distributed as follows:

Part 1 provided information about the main economic activities at the farm level. All the information from this part of the questionnaire is concerned with what the "Evaluation Unit" researchers called of "production unit". It means the sum of plots of land, owned, rented or sharecropped (contiguous or not) which are connected in the process of production and that are under a single command. The rented land, in the questionnaire, is the land that was given in exchange for

a fixed payment. This payment can be in cash or goods. For it to be characterized as tenancy the payment needed to be a fixed amount, which did not involve risk to the landlord. Sharecropping is the concession of land where the payment is variable. It is, in general, made in kind and involves the sharing of risks between the landowner and the sharecropper. The concession of land in return for stubble fodder or clearing lands for pasture is also considered to be sharecropping, although the latter does not involve risks for the landlord. This definition of a production unit involves the concept of economic ownership. This economic ownership does not always imply legal ownership of the land, and signifies the control of means of production for given uses.

This part of the questionnaire consisted of twelve tables describing farm production and exchange relations, condensed under the following headings:

- (1) general information;
- (2) land tenure and land use;
- (3) fixed capital, machinery and equipment;
- (4) production of livestock, swine and poultry on the farm (inventory, variation and composition of herd);
- (5) agricultural calendar;
- (6) crop production;
- (7) processing and distribution;
- (8) marketing and storage activities⁶;
- (9) labour used by kind of activity;
- (10) remuneration of labour⁷;
- (11) production inputs used per crop;

⁶ In the version of the questionnaire applied in 1985, the information asked in table 8 was included in tables 6 and 7.

⁷ This table was excluded in the questionnaire used in 1985. In its place was included the table 23, concerning to the use of hired in and hired out labour. It asked information about number of people and number of work days by category of worker.

(12) financial Capital;

Part 2 included questions on each member of the household familiar units that could be grouped under five headings:

(1) characterization of family units (table A, residents members; table B, family members who emigrated);

(2) health of family members

(3) health services

(4) education

(5) composition of family income

3. The Oral Histories

The oral histories were collected when I came back to Recife aiming to undertake further primary investigation from September 1991 to February 1992. My intention was to check parts of my data set, to complement them, and to collect additional material on the agrarian history of the Northern Agreste as well as the history, implementation process and achievements of the project. Some of the sources were historical documentation, project archival records, evaluation and institutional reports and interviews of people involved in the definition, negotiation, implementation and evaluation of the project (technicians from State apparatus, farmers' organisations, politicians, and researchers) .

After the first stage, in the collection of archival and secondary sources on the project implementation history and governmental information, I started the interviews. The choice of person to be interviewed was intentional. Those chosen at project management level included technicians and researchers who worked in some way on the project and are characterised by their comprehensive knowledge of the project under study, and were still working on "rural development" subjects. These interviews confirmed much of the

information included in written documents, and were very close to my own observations at the time when I was also involved in the project "Evaluation Unit".

At the municipal level, my initial contacts were with agricultural and social extensionists from the State Rural Extension Company - Pernambuco (EMATER-PE). In a series of roughly hour-long unstructured interviews with EMATER technicians from each municipality sampled, I gathered information concerning their work, their relationships with the farmers and local powers, their experience with the project and their perceptions of the processes of local political, social and agricultural changes which were (or were not) occurring in the recent past. From these conversations I identified the farmers (on which to collect life histories) and other relevant people (to local specific questions) to be interviewed about specific questions in the next round. The number of interviews, categories of people and places where they are located are shown in table 4.

TABLE 4 - NUMBER OF UNSTRUCTURED/SEMISTRUCTURED INTERVIEWS BY CATEGORIES OF PEOPLE INTERVIEWED AND PLACE (**), 1991/92.

Municípios	Technicians	Politicians/ Local Leaders	Farmers	Total
Recife	4	2	-	6
Capoeiras	2	-	2	4
Caruaru	2	1	4	7
Cumarú	2	1	2	5
Glória do Goitá	2	1	3	6
Poçoão	1	(*)	3	4
Vertentes	1	2	2	5
Total	14	7	16	37

(*) Amongst the rural producers interviewed in the municipality of Poçoão is include a former municipal Vice-prefect and the president of the Syndicate of Rural Workers of Poçoão.

(**) The nominal list and some information about each case come in annex.

ANNEX

List of Names and Some Characteristics of People Interviewed (From December 91 to February 92)

Recife

1- Helita Novais - Technician of the former 'Technical Unit' for Coordination of POLONORDESTE - Projects in Pernambuco, and currently one of the managers of the Technical Unit (PRORURAL) for Coordination of Programme of Support to Small Producers (PAPP).

2- Herminio de Souza Ramos- Former member of the PDRI-AS-PE "Unit of Evaluation" team, and currently Deputy Secretary of the State Secretariat of Agriculture - Pernambuco.

3- Alfredo Soares - Former coordinator of the PDRI-AS-PE "Unit of Evaluation" team, and currently Director of the State Secretariat of Agriculture - Pernambuco

4- Augusto Cesar de Oliveira - Former coordinator of the PDRI-AS-PE "Unit of Evaluation" team, currently teaching Economy in the Integrated Masters Programme of Economy and Sociology (PIMES) / Federal University of Pernambuco (UFPE).

5- Severino Ramos - Rural Producer and President of the Association of Small Producers of the State of Pernambuco (UNIPROPE).

6- Israel Libâneo - Agricultural Technician and Directory Advisor of UNIPROPE.

Capoeiras

7- Jeová Lopes de Queiroz - Agricultural Extensionist of State Rural Extension Company - Pernambuco (EMATER-PE).

8- José Matias Gomes, St. Junco - Rural Producer, 40 ha, 14 children, 11 of them are living with their own family on the farm and are independent producers on the father's land (previously interviewed).

9- Manoel Rodrigues de Lima - Rural Producer, 64 ha, 6 children, family production (previously interviewed).

10- Edson Carneiro - Agricultural Technician and middleman - intermediate commercialization of "curd cheese" (queijo coalho) produced in rural familiar units.

Caruaru

11- João Luiz Magalhães - Agricultural Extensionist of State Rural Extension Company - Pernambuco (EMATER-PE).

12- Carmelita de Lima Ramos - Social Worker of State Rural Extension Company - Pernambuco (EMATER-PE).

13- Severino Jurandir, St. Poço Dantas - Rural Producer, works 25 ha of mother's inheritance (8 of his 10 brothers emigrate to São Paulo and they never came back).

14- Constantino, St. Lajedo - Rural Producer, 8 ha, 6 children, temporary migration for S.Paulo (where he lived for 7 years, while his wife managed the farm).

15- José Joaquim do Nascimento, St. Maribondo, - Rural Producer and middleman - intermediate commercialization of potatoes. Active member of the Association of Potatoe Producers of Caruaru (APROBACA).

16- Severino Alves Cordeiro, St. Lagoa de Pedra - Rural Producer, 7 ha, 9 children, 3 of them are living with their own family "cultivating together the same land portion".

17- Rui Rosalva, Councilman (vereador) of the municipality of Caruaru.

Cumaru

18- Rivaldo José dos Santos - Agricultural Extensionist of State Rural Extension Company - Pernambuco (EMATER-PE).

19- Waldemir Bernardo de Paiva - Agricultural Extensionist of State Rural Extension Company - Pernambuco (EMATER-PE).

20- José Gabriel Gomes Neto, St. Caju - Rural Producer, 11 ha, 7 children, civil servant of Municipal Prefecture and retailer of "cachaça" - a sugar-cane spirit (previously interviewed).

21- José Pedro da Silva, Cajá - producer Rural, 6 ha, 5 children, temporary emigrant to Zona da Mata (seasonal labour in sugarcane plantation) and S.Paulo (previously interviewed).

22- José Medeiros, Prefect of the Municipalitie of Cumaru.

Glória do Goitá

23- Waldemar Otávio de Lima - Agricultural Extensionist of State Rural Extension Company - Pernambuco (EMATER-PE).

24- Maria José Ferreira dos Reis - Social Agricultural Extensionist of State Rural Extension Company - Pernambuco (EMATER-PE).

25- José Vicente da Silva, St. Gameleira - Rural producer, 40 ha, 17 children, 10 of them are living in the farm (previously interviewed).

26- José Felix de Oliveira, St. Araçá, son of Sebastião Felix de Oliveira (previously interviewed) - Rural Producer, works 6 ha of father's inheritance with 7 brothers .

27- Daughter and inheritor of Severino José de Santana (previously interviewed) - Spouse of rural producer, 10 ha, teacher and directing the local Municipal Primary School, St. Araçá.

28- Ceciliano José Ribeiro de Vasconcelos - Secretary of Finances of the Municipal Prefecture of Glória do Goitá and father of the Prefect.

Poção

29- José Onildo Pereira Barbosa - Agricultural Extensionist of State Rural Extension Company - Pernambuco (EMATER-PE).

30- Isaias Galdino de França, St. Mangueira - Rural Producer, 21 ha, 2 children. The only son emigrated to Rio de Janeiro (previously interviewed).

31- Francisco Caetano de Lima (Chicão), St. Balão - Rural Producer, 22 ha, and 7 married children who are living on the farm with their own families. He is the president of the Syndicate of Rural Producers of Poção (previously interviewed).

32- Manoel Barbosa da Silva - Ex-Rural Producer, (St. Olho D'Aguiha, 10 ha) former municipal Vice-prefect. All children emigrate to S. Paulo (previously interviewed).

Vertentes

33- Luiz José Barreto - Agricultural Extensionist of State Rural Extension Company - Pernambuco (EMATER-PE).

34- José Joaquim de Santana (Zé Miguel), St. Bomba D'Agua - Rural producer, 200 ha, 8 children, proprietor of a town drugstore (managed by his wife). Family live in the town centre.

35- Irineu José da Silva, St. Bomba D'Agua, Rural producer, 6 ha, 9 children, of whom 6 children and 3 grandchildren are living in the same house (mother of the 3 children emigrated to Rio de Janeiro where she is working as a servant).

36- Marlinda Bezerra Chagas da Silva - President of a local beneficent foundation (Fundação Beneficente Renato Guedes) and wife of councilman.

37- Raimundo Bezerra da Silva - President of the City Council (Câmara de Vereadores de Vertentes).

UNIDADE DE AVALIAÇÃO DO PDRI - AS - PE

CONVÊNIO POLONORDESTE / UFPE (CME - PIMES - DPTO. DE ECONOMIA)

Parte I - Caracterização das Unidades de Produção Agrícola (quadros 1 a 12)

Parte II - Caracterização das Unidades Familiares (quadros 13 a 18 - B)

Município: _____ Sub-Área: _____ N.º do Quest. _____

Nome: _____ Nome da Propriedade _____ N.º ha _____

Condição do Entrevistado: _____

Data da Entrevista: _____ Início: _____ hs Término: _____ hs

Nome do Entrevistador: _____

Observações do Entrevistador: _____

Observações do Supervisor: _____

1.ª Revisão	2.ª Revisão	Supervisor de Campo	Escritório	Computador
Data _____	Data _____	Data _____	Data _____	Data _____
Ass. _____	Ass. _____	Ass. _____	Ass. _____	Ass. _____

QUADRO N.º 01 - Informações Gerais

1. Número cadastral INCRA

1	2	3	4	5	6	7	8	9	10	11	12	13	14
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2. Distância da sede do município (km)

15	16	17
----	----	----

3. Como teve acesso a essa terra (1. por compra; 2. por herança; 3. por compra e herança; 4. outra forma, especifique).

18

4. Título da propriedade (1. escritura definitiva; 2. promessa de compra; 3. direito de posse; 4. outra forma, especifique).

19

5. O senhor visita o estabelecimento (1. diariamente; 2. dois dias por semana; 3. mensalmente; 4. outro (especifique). 5. reside na propriedade).

20

6. De janeiro de 1982 até a presente data o senhor comprou outras terras? (1. sim; 2. não)

21

7. Especifique a área adquirida (ha.)

22	23	24	25	26	27
----	----	----	----	----	----

8. A terra foi adquirida (1. com benfeitorias; 2. com culturas; 3. com benfeitorias e com culturas; 4. nua).

28

9. Valor da terra comprada (Cr\$ 1.000.)

29	30	31	32	33	34	35
----	----	----	----	----	----	----

10. Qual a utilização da terra recém-adquirida (1. cultura; 2. pecuária; 3. cultura e pecuária; 4. outra, especifique).

36

11. Podendo adquirir mais terras, em que as utilizaria? (1. cultura; 2. pecuária; 3. cultura e pecuária; 4. outra, especifique).

37

12. Dificuldades para aquisição de terras (1. falta de terras disponíveis no mercado; 2. falta de crédito; 3. preço muito alto; 4. outra (especifique)).

38

13. Quantos hectares o senhor vendeu em 1982/84 ?

39	40	41	42	43
----	----	----	----	----

14. Motivo da venda (1. pagamento de dívidas; 2. oferta vantajosa; 3. pretende migrar; 4. necessidade de recursos para financiar outros negócios; 5. a terra não era boa; 6. pretende mudar de ramo; 7. outros (especifique)).

44

15. A terra foi vendida (1. com benfeitorias; 2. com culturas; 3. com benfeitorias e cultura; 4. nua).

45

16. Valor da terra vendida (Cr\$ 1.000.)

46	47	48	49	50	51	52
----	----	----	----	----	----	----

17. Pastos tomados alugados em 1984 (ha)

53	54	55	56
----	----	----	----

18. Pastos dados em aluguel em 1984 (ha)

57	58	59	60
----	----	----	----

18.1. Número de cabeças por mês

61	62	63	64
----	----	----	----

18.2. Período de aluguel (n.º de meses)

65	66
----	----

18.3. Valor total do aluguel (Cr\$ 1.000.)

67	68	69	70	71
----	----	----	----	----

Identificação

72	73	74	75	76	77	78	79	80
----	----	----	----	----	----	----	----	----

1. Sobre os seguintes órgãos, o senhor: (0 — não sabe nada; 1 — ouviu falar; 2. utilizou serviços)

POLONORDESTE

1	2
---	---

EMATER

19	20
----	----

INCRA

3	4
---	---

FUNRURAL

21	22
----	----

CELPE

5	6
---	---

CILPE

23	24
----	----

MOBRAL

7	8
---	---

INAMPS (INPS)

25	26
----	----

PREÇOS MÍNIMOS

9	10
---	----

CAP

27	28
----	----

EMBRAPA (IPA)

11	12
----	----

SUDENE

29	30
----	----

CISAGRO

13	14
----	----

PROAGRO

31	32
----	----

FUSAM

15	16
----	----

CAGEPE

33	34
----	----

MERCADO DO PRODUTOR

17	18
----	----

DNOCS

35	36
----	----

1.1. Resultados da utilização: (1. excelente; 2. bom; 3. regular; 4. ruim; 5. péssimo)

2. Para o senhor, os principais problemas da agricultura são (em ordem) (0. secas; 1. preços ruins; 2. falta de armazéns; 3. dificuldade de assistência técnica; 4. dificuldade de crédito; 5. escassez de terras; 6. pragas; 7. falta de estradas; 8. escassez de mão de obra; 9. outros (especifique))

37	38	39
----	----	----

3. É associado a alguma entidade? (0. não; 1. um ano; 2. 2 anos; 3. 3 anos; 4. 4 anos; 5. 5 anos; 6. 6 anos; 7. 7 anos; 8. 8 anos; 9. mais de 9 anos).

cooperativa

40

sindicato

41

outros: especifique

42

4. Recebe assistência da EMATER? (0. não; 1. um ano; 2. 2 anos; 3. 3 anos; 4. 4 anos; 5. 5 anos ou mais; 6. já recebeu assistência mas não achou resultados favoráveis; 7. o extensionista deixou de aparecer; 8. teve prejuízos com os conselhos da EMATER; 9. outro; especifique).

43

5. Segue as instruções técnicas rigorosamente? (0. não; 1. sim).

44

6. Quais as principais ajudas que o senhor recebe do governo (em ordem) (0. não recebe ajuda; 1. crédito; 2. assistência técnica; 3. preço mínimo; 4. informações de preços; 5. água (açude); 6. isenção de impostos; 7. insumos subsidiados; 8. armazenagem; 9. outro: especifique).

45	46	47
----	----	----

Identificação

72	73	74	75	76	77	78	79	80
----	----	----	----	----	----	----	----	----

Códigos para o Quadro N.º 2

Obrigações dos parceiros - Cols. 49 - 50 - 51

- 0 — Sem obrigações
- 1 — Capim
- 2 — Palha
- 3 — Meia
- 4 — Terça
- 5 — Prioridade de mão-de-obra para o patrão
- 6 — Diárias mais baixas
- 7 — Dias de trabalho gratuito
- 8 — Obrigação de venda do produto
- 9 — Outros especifique

Obrigações da mão-de-obra vinculada - Cols. 49 - 50 - 51

- 0 — Sem obrigação
- 1 — Prioridade de mão-de-obra p/o patrão
- 2 — Dias de trabalho gratuito
- 3 — Diárias mais baixas

Período de Parceria - Col. 47 :

- 1 — Menor ou igual a 1 ano
- 2 — 2 anos
- 3 — 3 anos
- 4 — 4 anos a 5 anos
- 5 — Idefnido
- 6 — 6 anos
- 7 — 7 anos e mais
- 8 — Até o capim tomar conta da área
- 9 — Deixa maniva para o proprietário.

Códigos para o Quadro N.º 03

Código B — Col. 20 (só para o trator)

- 01 — Açude
- 02 — Preparo do solo
- 03 — Transporte
- 04 — Vários
- 05 — Barragem
- 06 — Açude e preparo do solo

Código C — Col. 21 *

- 0 — < 1 ano
- 01 — 1 ano
- 02 — 2 anos
- 03 — 3 anos
- 04 — 4 anos
- 05 — 5 anos
- 06 — 6 anos
- 07 — 7 anos
- 08 — 8 anos
- 09 — 9 anos e mais

Código D — Col. 36 — De quem alugou ou tomou emprestado?

- 1 — Cisagro
- 2 — Cooperativa
- 3 — Patrão
- 4 — Vizinho
- 5 — Planam (Pesqueira)
- 6 — Proterra
- 7 — Particular ou outro proprietário/parente
- 8 — Prefeitura
- 9 — Emater
- 0 — Outros (especifique)

* Obs.: Nos casos em que haja mais de uma unidade, colocar a idade média

Códigos para o Quadro N.º 04

Código dos animais — Cols. 1 e 2

- 01 – animais de trabalho
- 02 – touros
- 03 – vacas
- 04 – bezerros nascidos no ano passado
- 05 – outros bezerros
- 06 – suínos nascidos no ano passado
- 07 – suínos
- 08 – caprinos nascidos no ano passado
- 09 – caprinos
- 10 – ovinos nascidos no ano passado
- 11 – ovinos
- 12 – aves
- 13 – coelho
- 14 – cavalo de lazer

Código — Cols. 19, 24, 37, 43

- 01 — gordo
- 02 — magro (ou velho)

Código para a causa – Col. 31 (perdidos ou mortos)

- 1 – Ataque de animais/acidente/mãe matou
- 2 – A.Rosa
- 3 – Raiva
- 4 – Brucelose
- 5 – Perdidos ou roubados
- 6 – Outras doenças
- 7 – Complicações do parto
- 8 – Decorrência da seca
- 9 – Ignorado
- 0 – Outros (especifique)

Códigos para o Quadro N.º 05

Código das culturas — Cols. 1 e 2

01 — abacate	28 — jerimum
02 — abacaxi	29 — laranja
03 — algodão mocó	30 — lima
04 — algodão herbáceo	31 — limão
05 — algodão verdão	32 — mandioca
06 — alface	33 — macaxeira
07 — alho	34 — maxixe
08 — amendoim	35 — milho
09 — arroz	36 — mamona
10 — banana	37 — manga
11 — batata doce	38 — melão
12 — batata inglesa	39 — melancia
13 — beterraba	40 — mamão
14 — café	41 — maracujá
15 — caju (castanha de caju)	42 — pepino
16 — caju	43 — pinha
17 — cana de açúcar	44 — pimentão
18 — cará (inhame)	45 — repolho
19 — cebola	46 — quiabo
20 — cebolinha	47 — sapoti
21 — cenoura	48 — tomate
22 — chuchu	49 — tangerina
23 — coentro	50 — uva
24 — couve	51 — madeira
25 — feijão (preto ou mulatinho)	52 — capim nativo
26 — fava, feijão verde ou de corda	53 — capim plantado
27 — fumo	54 — palma
	112 — outros especifique

Culturas, Colheitas e Perdas no Campo

Código das Culturas – Cols. 1 e 2

- 01 – abacate
- 02 – abacaxi
- 03 – algodão mocó
- 04 – algodão herbáceo
- 05 – algodão verdão
- 06 – alface
- 07 – alho
- 08 – amendoim
- 09 – arroz
- 10 – banana
- 11 – batata doce
- 12 – batata inglesa
- 13 – beterraba
- 14 – café
- 15 – caju (castanha de caju)
- 16 – caju
- 17 – cana de açúcar
- 18 – cará (inhame)
- 19 – cebola
- 20 – cebolinha
- 21 – cenoura
- 22 – chuchu
- 23 – coentro
- 24 – couve
- 25 – feijão (preto ou mulatinho)
- 26 – fava, feijão verde ou de corda
- 27 – fumo
- 28 – jerimum
- 29 – laranja
- 30 – lima
- 31 – limão
- 32 – mandioca
- 33 – macaxeira
- 34 – maxixe
- 35 – milho
- 36 – mamona
- 37 – manga
- 38 – melão
- 39 – melancia
- 40 – mamão
- 41 – maracujá
- 42 – pepino
- 43 – pinha
- 44 – pimentão
- 45 – repolho
- 46 – quiabo
- 47 – sapoti
- 48 – tomate
- 49 – tangerina
- 50 – uva

- 51 – madeira
- 52 – capim nativo
- 53 – capim plantado
- 54 – palma
- 55 – rapadura
- 56 – aguardente
- 57 – fumo de corda
- 58 – farinha
- 59 – goma
- 60 – massa
- 61 – leite
- 62 – queijo
- 63 – manteiga
- 64 – ovos
- 65 – carne
- 66 – peles
- 67 – xerém
- 68 – pão-de-milho
- 69 – carvão
- 70 – fubá
- 71 – erva-doce
- 72 – côco
- 73 – palha de xerém
- 74 – raspa de mandioca
- 75 – adubo orgânico
- 76 – jaca
- 77 – açafrão
- 78 – jaboticaba
- 80 – mel de abelha
- 81 – cal de pedra
- 82 – cal queimado
- 84 – tijolo
- 85 – telha
- 87 – seriguela
- 88 – goiaba
- 90 – agave
- 92 – cana forrageira
- 98 – côco da Bahia
- 112 – outros (especifique)

Tipo de Administração – Col. 3

- 01 – Proprietário
- 02 – Prop/cedente de parceria
- 03 – Prop/tomador de parceria
- 04 – Parceiro (sem terra)
- 05 – Arrendatário
- 06 – Arrend./cedente de parceria
- 07 – Arrend./tomador de Parceria
- 08 – Prop./arrend./cedente de parceria
- 09 – Proprietário tomador de arrendamento
- 00 – Outro - especifique

Pergunta A – Col. 23 – Por que planta esta cultura?

- 01 – Porque aqui todo mundo planta / não sabe
- 02 – A terra não serve para outra coisa
- 03 – Os preços são vantajosos
- 04 – Indicação da EMATER
- 05 – Indicação do rádio/TV
- 06 – Indicação do patrão ou intermediário
- 07 – Não sabe lidar com outra cultura
- 08 – São culturas próprias do seu padrão alimentar
- 09 – Incentivos
- 10 – Outro: especifique

Pergunta B – Col 24

Por que planta apenas essa área?

- 01 – Sempre plantou essa área/não sabe
- 02 – Não dispõe de terras
- 03 – Não dispõe de recursos
- 04 – Não compensa plantar mais
- 05 – É arriscado plantar mais
- 06 – Outro: especifique

Unidade de Medida – Cols. 25 e 26

- 01 – Quilo
- 02 – Arroba
- 03 – Tonelada
- 04 – Litro
- 05 – 1.000 litros
- 06 – Unidade
- 07 – Cento
- 08 – Milheiro
- 09 – Ha
- 10 – Quadros
- 11 – Pickup
- 12 – Carga de Burro
- 13 – Tarefa
- 14 – Carrada
- 15 – Caminhão
- 16 – Carro de boi
- 17 – Vidro
- 18 – Garrafa
- 19 – Contas
- 20 – Caixa
- 21 – M³
- 22 – Sacos
- 23 – Pés
- 24 – Tubo
- 25 – Feixes
- 27 – 100 litros
- 30 – Outros (especifique)

Causa das Perdas – Cols. 45 e 46

- 01 – Pragas, doenças
- 02 – Falta de mão-de-obra para colher
- 03 – Demora na colheita por falta de transporte
- 04 – Demora na colheita por falta de estradas
- 05 – Não colheu por falta de preço
- 06 – Excesso de chuva na germinação
- 07 – Excesso de chuva na floração
- 08 – Excesso de chuva na maturação
- 09 – Falta de chuva na germinação
- 10 – Falta de chuva na floração
- 11 – Falta de chuva na maturação
- 12 – Ataque de pássaros
- 13 – Pisoteio de animais
- 14 – Utilização inadequada de defensivos
- 15 – Terra Ruim/Geada
- 16 – Terra imprópria
- 17 – Roubo e apodrecimento
- 18 – Ocupação na terra do patrão
- 19 – Plantada fora de época
- 20 – Preparo inadequado do solo
- 21 – Bicho comeu/Falta de limpa no tempo adequado
- 22 – Terra úmida
- 23 – Seca e praga
- 24 – Falta de Mão de obra p/colher
- 25 – Por causa da fiação
- 26 – Abandono
- 27 – Frio
- 28 – Inverno rigoroso
- 29 – Desenteresse
- 30 – Variação climática
- 31 – Outros (especifique)

Tipo de Comprador – Cols. 64 e 65

- 01 – Dono da terra
- 02 – Outro proprietário
- 03 – Intermediário
- 04 – Cooperativa
- 05 – Fábrica
- 06 – Feirante
- 07 – Consumidor
- 08 – Governo via preço mínimo
- 09 – Comerciante
- 10 – Feirante
- 11 – Diversos
- 12 – Usina (nº 5)
- 13 – Feirante da Ceusa
- 14 – Outros (especifique)

Forma de Pagamento – Cols. 66 e 67

- 01 – À vista, em dinheiro
- 02 – À vista, em mercadoria
- 03 – À vista, parte em dinheiro, parte em mercadoria
- 04 – A prazo, em dinheiro
- 05 – A prazo, em mercadoria
- 06 – A prazo, parte em dinheiro, parte em mercadoria
- 07 – A vista + a Prazo
- 08 – Após moagem ou fabricação da farinha
- 09 – De 8 em 8 dias
- 10 – Outros (especifique)

Razão da Venda – Cols. 68 e 69

- 01 – Preço melhor
- 02 – Compromisso com o proprietário
- 03 – Compromisso com o intermediário
- 04 – Compromisso com a fábrica
- 05 – Venda na folha
- 06 – Preferência pessoal
- 07 – Único comprador que apareceu
- 08 – Não tem casa de farinha
- 09 – É comerciante
- 10 – Mais perto
- 11 – Compra de uma só vez
- 12 – (vide 8)
- 13 – Vem buscar em casa
- 14 – Não paga frete
- 15 – Mais comodo
- 16 – É comprador certo
- 17 – Comprador forte da Região
- 18 – Ocasão
- 19 – Pagamento imediato
- 20 – Interesses políticos (votos)
- 21 – Compra grande quantidade
- 22 – Tem condições de armazenar
- 23 – Compromisso com casa de farinha
- 24 – Não tem condições de venda em Recife
- 25 – Garante toda a colheita
- 26 – Compromisso com o consumidor
- 27 – Facilidade
- 28 – Vende por encomenda
- 29 – Recebe comissão
- 30 – Outros (especifique)

Códigos para o Quadro N.º 07

Culturas, Pastos e Produção Beneficiada — Distribuição no ano passado

Código das culturas — Cols. 1 e 2

- | | |
|-------------------------------------|------------------------|
| 01 — abacate | 35 — milho |
| 02 — abacaxi | 36 — mamona |
| 03 — algodão mocó | 37 — manga |
| 04 — algodão herbáceo | 38 — melão |
| 05 — algodão verdão | 39 — melancia |
| 06 — alface | 40 — mamão |
| 07 — alho | 41 — maracujá |
| 08 — amendoim | 42 — pepino |
| 09 — arroz | 43 — pinha |
| 10 — banana | 44 — pimentão |
| 11 — batata doce | 45 — repolho |
| 12 — batata inglesa | 46 — quiabo |
| 13 — beterraba | 47 — sapoti |
| 14 — café | 48 — tomate |
| 15 — caju (castanha de caju) | 49 — tangerina |
| 16 — caju | 50 — uva |
| 17 — cana de açúcar | 51 — madeira |
| 18 — cará (inhame) | 52 — capim nativo |
| 19 — cebola | 53 — capim plantado |
| 20 — cebolinha | 54 — palma |
| 21 — cenoura | 55 — rapadura |
| 22 — chuchu | 56 — aguardente |
| 23 — coentro | 57 — fumo de corda |
| 24 — couve | 58 — farinha |
| 25 — feijão (preto ou mulatino) | 59 — goma |
| 26 — fava, feijão verde ou de corda | 60 — massa |
| 27 — fumo | 61 — leite |
| 28 — jerimum | 62 — queijo |
| 29 — laranja | 63 — manteiga |
| 30 — lima | 64 — ovos |
| 31 — limão | 65 — carne |
| 32 — mandioca | 66 — peles |
| 33 — macaxeira | 67 — xerém |
| 34 — maxixe | 68 — pão-de-milho |
| | 69 — carvão |
| | 70 — fubá |
| | 71 — erva-doce |
| | 72 — côco |
| | 73 — palha-de-xerém |
| | 74 — raspa de mandioca |
| | 75 — adubo orgânico |

Unidade de medida — Cols. 3 e 4

- | | | |
|-------------------|---------------------|---------------------------|
| 01 — quilo | 09 — hectare | 18 — Garrafa |
| 02 — arroba | 10 — quadro | 20 — caixa |
| 03 — tonelada | 11 — pickup | 21 — M ³ |
| 04 — litro | 12 — carga de burro | 22 — sacos |
| 05 — 1.000 litros | 13 — tarefa | 23 — pés |
| 06 — unidade | 14 — carrada | 24 — tubo |
| 07 — cento | 15 — caminhão | 25 — feixes |
| 08 — milheiro | 16 — carro de boi | 27 — 100 litros |
| | 17 — vidro | 30 — outros (especifique) |
| | 18 — garrafa | |
| | 19 — contas | |

Código A — Col. 20

- | | |
|-----------------------------------|--------------------------|
| 01 — outro proprietário | 6 — intermediário |
| 02 — parceiro | 7 — vendedor |
| 3 — feirante | 8 — usina |
| 4 — armazém/varejista/comerciante | 9 — outros (especifique) |
| 5 — cooperativa | |

Causa das perdas — Cols. 53 e 54

- | |
|--|
| 01 — demora na chegada de comprador |
| 02 — transporte precário |
| 03 — estradas precárias |
| 04 — ausência de embalagem apropriada |
| 05 — ausência de armazenagem |
| 06 — armazenamento precário |
| 07 — espera de melhor preço |
| 08 — bicho |
| 09 — fatores ambientais (umidade, calor) |
| 10 — Má qualidade |
| 11 — Acidez |
| 12 — Leite não coaghou |
| 13 — Outros (especifique) |

- | |
|----------------------------|
| 76 — jaca |
| 77 — açafrao |
| 78 — jaboticaba |
| 80 — mel de abelha |
| 81 — cal de pedra |
| 82 — cal queimado |
| 84 — tijolo |
| 85 — telha |
| 87 — seriguela |
| 88 — goiaba |
| 90 — agave |
| 92 — cana forrageira |
| 98 — côco da Bahia |
| 112 — outros (especifique) |

Códigos para o Quadro N.º 09

Código das culturas — Cols. 1 e 2

- | | |
|-------------------------------------|----------------------------|
| 01 — abacate | 35 — milho |
| 02 — abacaxi | 36 — mamona |
| 03 — algodão mocó | 37 — manga |
| 04 — algodão herbáceo | 38 — melão |
| 05 — algodão verdão | 39 — melancia |
| 06 — alface | 40 — mamão |
| 07 — alho | 41 — maracujá |
| 08 — amendoim | 42 — pepino |
| 09 — arroz | 43 — pinha |
| 10 — banana | 44 — pimentão |
| 11 — batata doce | 45 — repolho |
| 12 — batata inglesa | 46 — quiabo |
| 13 — beterraba | 47 — sapoti |
| 14 — café | 48 — tomate |
| 15 — caju (castanha de caju) | 49 — tangerina |
| 16 — caju | 50 — uva |
| 17 — cana de açúcar | 51 — madeira |
| 18 — cará (inhame) | 52 — capim nativo |
| 19 — cebola | 53 — capim plantado |
| 20 — cebolinha | 54 — palma |
| 21 — cenoura | 71 — erva-doce |
| 22 — chuchu | 72 — côco |
| 23 — coentro | 76 — jaca |
| 24 — couve | 77 — açafrao |
| 25 — feijão (preto ou mulatinho) | 78 — jaboticaba |
| 26 — fava, feijão verde ou de corda | 87 — seriguela |
| 27 — fumo | 88 — goiaba |
| 28 — jerimum | 90 — agave |
| 29 — laranja | 92 — cana-forrageira |
| 30 — lima | 98 — côco da Bahia |
| 31 — limão | 112 — outros (especifique) |
| 32 — mandioca | |
| 33 — macaxeira | |
| 34 — maxixe | |

Código A col. 19

- 01 — manual "Ladeira Abaixo"/ Ladeira abaixo e contra as águas/Plano e ladeira abaixo (Manual)
- 2 — Manual "contra as águas"
- 3 — Mecânico "Ladeira abaixo"/Plano e ladeira abaixo mecanização
- 4 — Mecânico "contra as águas"/Plano e contra as Águas
- 5 — Animal "Ladeira Abaixo"/Animal Ladeira Abaixo+Manual Ladeira Abaixo
- 6 — Animal "contra as Águas"
- 7 — Manual Plano
- 8 — Mecânico Plano
- 9 — Animal Plano
- 0 — Outros (especifique) *

Código B — Cols. 20, 31, 42 e 53

- Dificuldades de encontrar mão-de-obra
- 01 — não houve dificuldade
 - 02 — houve alguma dificuldade
 - 03 — houve muita dificuldade

Códigos para o Quadro N.º 11

Unidade de Medida — Cols. 3 e 4

- 01 — quilo
- 02 — arroba
- 03 — tonelada
- 04 — litro
- 05 — 1.000 litros
- 06 — unidade
- 07 — cento
- 08 — milheiros
- 09 — hectare
- 10 — quadro
- 11 — pickup
- 12 — carga de burro
- 13 — tarefa
- 14 — carrada
- 15 — caminhão
- 16 — carro de boi
- 17 — vidro
- 18 — garrafa
- 19 — contas
- 20 — caixa
- 21 — M³
- 22 — sacos
- 23 — pés
- 24 — tubo
- 25 — feixes
- 27 — 100 litros
- 30 — outros (especifique)

Códigos dos Insumos — Cols. 1 e 2

- 01 — Adubos orgânicos
- 02 — Adubos químicos
- 03 — Sementes comuns
- 04 — Sementes selecionadas
- 05 — Mudas/Estacas
- 06 — Defensivos
- 07 — Forragem
- 08 — Sal comum, mistura mineral, farinha de ossos
- 09 — Vacinas, medicamentos, semem
- 10 — Combustível
- 11 — Energia elétrica
- 12 — Água
- 13 — Material para embalagem
- 14 — Leite
- 15 — Mandioca
- 16 — Cana
- 17 — milho
- 18 — coalho
- 19 — pó de serra
- 20 — ração
- 21 — farelo
- 22 — lenha
- 23 — carvão
- 24 — outras despesas
- 25 — barro
- 26 — arame
- 27 — pedra
- 28 — aluguel (pago em produto)
- 29 — diversos
- 30 — cal de pedra
- 31 — outros (especifique)

De quem compra — Cols. 25 e 26

- 01 — Dono da Terra (Patrão)
- 02 — Do governo
- 03 — Cooperativa
- 04 — Armazém
- 05 — Vendedor/Viajante/Representante

- 06 — Granjas
- 07 — Outro proprietário
- 08 — Feira livre
- 49 — Outros especifique

Por que compra aí — Cols. 27 e 28

- 01 — Menor preço
- 02 — Mais perto
- 03 — Orientação técnica
- 04 — É a única que conhece
- 05 — Facilidade de pagamento
- 06 — Por obrigação
- 07 — Único que tem esse produto
- 08 — mais comodo
- 09 — preferência pessoal
- 10 — sem preferência
- 11 — único que vai a propriedade
- 12 — facilidade de pagamento
- 13 — não paga frete
- 14 — transação comercial com o comprador de algodão
- 15 — o vendedor mesmo aplica
- 16 — só pode comprar aí, não tem cota na cooperativa
- 17 — mais garantido
- 18 — porque é mais completo
- 19 — facilidade de entrega do produto
- 20 — melhor produto
- 21 — facilidade de transporte
- 22 — outros especifique

Condições de Pagamento — Cols. 29 e 30

- 01 — A vista
- 02 — A prazo
- 03 — Depois da colheita e venda do produto
- 04 — Outro: especifique

Pergunta A — Quem lhe indicou o uso deste insumo?

- 01 — EMATER
- 02 — Vizinhos
- 03 — Propaganda no rádio
- 04 — Propaganda por cartazes
- 05 — Outro: especifique

Códigos para o Quadro N.º 12

Trimestre - Col. 2

- 01 - Out. Nov. Dez. 1984
- 02 - Jul. Ago. Set. 1984
- 03 - Abr. Mai. Jun. 1984
- 04 - Jan. Fev. Mar. 1984
- 05 - Out. Nov. Dez. 1983
- 06 - Jul. Ago. Set. 1983
- 07 - Abr. Mai. Jun. 1983
- 08 - Jan. Fev. Mar. 1983

Fonte - Col. 3

- 01 - Banco do Brasil
- 02 - Banco do Nordeste
- 03 - Banco do Estado
- 04 - Banco Nacional de Cooperativas
- 05 - Banco Privado
- 06 - Patrão
- 07 - Parente/Vizinho/Amigo
- 08 - Polonordeste
- 09 - Outro: especifique

Outras Obrigações - Col. 21

- 01 - Entrega da produção
- 02 - Venda da produção por um preço menor
- 03 - Obrigação de dias de trabalho gratuito
- 04 - Obrigação de dias de trabalho a preço mais baixo
- 05 - (Vende Gado do "Empregador")
- 06 - Outros (especifique)

Garantia - Col. 29

- 01 - Sim
- 02 - Não

Código do Investimento - Col. 30

- 01 - Formação de culturas perenes
- 02 - Construção e/ou reforma de armazens, galinheiros, pocilgas, etc.
- 03 - Construção ou melhorias em infra estruturas (Estradas/Electricidade, Açude ou Barreiro etc. (Construção/Limpeza) Desmatamento
- 04 - Construção e/ou reparos em cercas
- 05 - Formação de pastagens
- 06 - Construção e/ou reforma de residências rurais
- 07 - Compra de Bovinos e outros animais
- 08 - Compra de terras
- 09 - Compra de tratores, implementos e equipamentos
- 10 - Outros especifique

Pergunta A - Cols. 56 e 57

Há quantos anos utiliza o crédito bancário?

Pergunta B - Col. 58

Seu contato com o Banco é feito:

- 01 - Diretamente
- 02 - Através da EMATER
- 03 - Diretamente e através da Emater

UNIDADE DE AVALIAÇÃO DO PDRI-AS-PE
CONVÊNIO POLONORDESTE/UFPE/CME-PIMES

"QUESTIONÁRIO PARA CARACTERIZAÇÃO DAS UNIDADES FAMILIARES"

MUNICÍPIO _____

UNIDADE AMOSTRAL _____

NOME DO PROPRIETÁRIO _____

NÚMERO DO QUESTIONÁRIO _____

QUESTIONÁRIO SÓCIO-ECONÔMICO

QUADRO B - MIGRANTES DEFINITIVOS

1 - CARACTERÍSTICAS DA FAMÍLIA

1.1 - Composição familiar

QUADRO A - RESIDENTES

NOME (1)	STATUS FAMILIAR. (2)	IDADE NASCIM. (3)	SEXO (4)	EDUCAÇÃO				MIGRAÇÃO SAZONAL						
				CÓDIGO ESCOLA (5)	SÉRIE (6)	CLAU (7)	SITUAÇÃO (8)	(9)	SALIDA (10)	REGRESSO (11)	DESTINO (12)	Ocupação (13)	PLANTA (14)	
									1					
									2					
									3					
									1					
									2					
									3					
									1					
									2					
									3					
									1					
									2					
									3					
									1					
									2					
									3					

2 - SAÚDE

2.1 - Doenças na família após dezembro de 1983

MORBIDADE

Se pessoas dessa casa estiveram doentes no último ano preencher o seguinte quadro

Nº DE ORDEM	DOENÇA	QUEM TRATOU?	LOCAL ONDE FOI MEDICADO	Nº DE VIAGENS	CUSTO TOTAL

Obs.: Nº DE ORDEM - Obtido do quadro de composição familiar. Será repetido tantas vezes quantos episódios de doença tiver tido.

QUEM TRATOU? - Interessa saber a pessoa ou tipo de profissional que o fez e não seu nome próprio.

Ex. parente, farmacêutico, estudante, médico, etc.

3 - ASSISTÊNCIA MÉDICO-ODONTOLÓGICA

3.1 - Qual a primeira pessoa ou serviço que a família procura quando surge um problema de saúde?

- a) balconista de farmácia;
- b) ervateiros;
- c) benzedores e outros místicos;
- d) praticantes da medicina científica;
- e) parteiras leigas;
- f) outras pessoas ou serviços.

3.2 - Quais os serviços médicos aos quais a família se dirige?

Caso a resposta anterior seja diferente da alternativa d, pergunte:

a) previdência;

3.2 - Qual o motivo de não procurar o método?

b) sindicato;

a) falta de tempo;

c) clínicas convencionadas;

b) problemas de transporte;

d) outros serviços (especifique);

c) distância;

d) desconhecimento da existência de serviços;

e) restrições às condições de atendimento;

f) está satisfeito com o atendimento leigo;

g) outro: especifique

3.3 - Por qual

a) qualidade técnica do atendimento;

b) elevado padrão de atendimento em termos humanistas;

3.3 - Tem alguma restrição ao fato de ser atendido por um auxiliar de saúde e não um médico ou dentista?

3.3.1 - Sim

3.3.2 - Não

3.4 - No caso de resposta afirmativa, responda qual o tipo de restrição

- a) experiência pessoal ou notícia do mau atendimento técnico;
- b) experiência pessoal ou notícia de maus tratos pessoais;
- c) falta de confiança na competência técnica;
- d) temor de rompimento do sigilo;
- f) outros (especifique)

3.5 - Quais os serviços médicos aos quais a família tem direito

- a) previdência;
- b) sindicato;
- c) clínica convencionada;
- d) outros serviços (especifique)

3.6 - Na sua opinião, qual o melhor serviço de saúde da região?

3.7 - Por que?

- a) qualidade técnica do atendimento;
- b) elevado padrão de atendimento em termos humanistas;
- c) capacidade de resolver os mais variados problemas;
- d) poucos entraves burocráticos para a realização do atendimento;
- f) outro: especifique

3.8 - Sugestões para melhoria da existência de saúde da área

4 - EDUCAÇÃO

Se pessoa da família fez curso de capacitação profissional (na região) responder os seguintes itens:

4.1 - Tipo de curso:

4.2 - Quem informou:

4.3 - Período (nº de semanas):

4.4 - Carga horária semanal:

4.5 - Órgão promotor:

4.6 - Tipo de aula:

4.7 - Foi importante este curso? Por que?

4.13 - Seus filhos costumam faltar à aula?

4.14 - Por que razão principal seus filhos costumam faltar às aulas?

4.15 - Com que idade seus filhos foram à escola pela primeira vez?

4.16 - Gasto médio mensal por filho que estuda (média) Cr\$

4.17 - O senhor discute com os professores os problemas de seus filhos na escola:
quando e por que?

4.18 - O que a escola promove na localidade?

4.19 - Está satisfeito com os serviços prestados pela Escola? Por que?

4.20 - O que o senhor acha que poderia ser feito para melhorar o atendimento
escolar na comunidade?

ASPIRAÇÕES E EXPECTATIVAS EDUCACIONAIS E OCUPACIONAIS (SÓ PARA QUEM TEM
FILHOS DE 5 A 18 ANOS)

- 4.21 - É importante para o senhor que seu filho frequente a escola? Por que?
- 4.22 - Até que série o senhor gostaria que seu filho estudasse?
- 4.23 - Se seu filho arranjasse um emprego o senhor permitiria que ele deixasse a escola para trabalhar? Por que?
- 4.24 - O senhor prefere que seu filho permaneça trabalhando nesta localidade ou que ele saia para outro lugar? Por que?
- 4.25 - O senhor acha que ele vai permanecer ou vai sair? Por que?
- 4.26 - Que profissão o senhor gostaria que seu filho tivesse?
- 4.27 - O senhor acha que a escola oferece condições de prepará-lo para este tipo de trabalho? Por que?
- 4.28 - Na sua opinião o que o senhor acha que a escola da comunidade deve ensinar ao seu filho?

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