

Decentralized Rural Development and Enhanced Community Participation

A Case Study from Northeast Brazil

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The positive experience with the latest rural development intervention in Northeast Brazil suggests that rapid progress can be made if community participation is enhanced and decisionmaking authority is decentralized to lower levels of government and other institutions.

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Summary findings

In Northeast Brazil, despite sustained efforts to reduce rural poverty and more than \$3.2 billion in spending, the rural poor are little better off than they were two decades ago.

Brazil's difficult macroeconomic environment has tended to restrict the amount of funds available for rural development. In addition, project implementation has often been seriously undermined by the excessive centralization of decisionmaking in Brazil prior to the approval of a new constitution in 1988.

A preliminary evaluation of the latest rural development intervention in the Northeast — the reformulated Northeast Rural Development Program — suggests that rapid progress can be made if community participation is enhanced and decisionmaking authority is decentralized to lower levels of government and other institutions.

To support this new approach, van Zyl, Barbosa, Parker, and Sonn recommend that the next generation of

rural development projects in the Northeast incorporate several features:

- Expansion of the existing community-based approach into a "municipal fund" program. This hands responsibility for the management of fiscal resources and project implementation to municipalities and communities, further promoting decentralization of decisionmaking and encouraging greater municipal cost-sharing on projects.
- Implementation of a poverty-targeting methodology based on poverty-related criteria, backed by a strong system of checks and balances to thwart mistargeting and misappropriation of resources.
- Establishment of clear rules for the composition and operating procedures of municipal councils, to improve participation and transparency.
- Establishment of a system of checks and balances to promote transparency.

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DECENTRALIZED RURAL DEVELOPMENT AND ENHANCED COMMUNITY PARTICIPATION:

A CASE STUDY FROM NORTHEAST BRAZIL¹

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In Northeast Brazil, despite sustained efforts to reduce rural poverty and the expenditure of more than \$3.2 billion, the rural poor are little better off than they were two decades ago. Brazil faces a difficult macroeconomic environment that has tended to restrict the amount of funds available for rural development. In addition, project implementation has often been seriously undermined by the excessively centralized organization of decision-making in Brazil prior to the approval of a new constitution in 1988.

A preliminary evaluation of the latest rural development intervention in the Northeast--the reformulated Northeast Rural Development Program--suggests that rapid progress can be made if community participation is enhanced and decision-making authority is decentralized to lower levels of government and other institutions.

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Poverty continues to pervade rural areas in the developing world. Inappropriate public policies and ill-designed programs and projects have both served to impoverish rural communities. Despite recognition of the need for special strategies to address the widespread incidence of rural poverty in developing countries, initiatives aimed at bringing about a transformation of the rural standard of living have not had a consistent impact on reducing poverty.

In Northeast Brazil, despite sustained efforts to reduce rural poverty and the expenditure of more than \$3.2 billion, the rural poor are little better off than they were two decades ago. Brazil faces a difficult macroeconomic environment that has tended to restrict the amount of funds available for rural development (RD). In addition, project implementation has often been seriously undermined by the excessively centralized organization of decision-making in Brazil prior to the approval of a new constitution in 1988. Nevertheless, a preliminary evaluation of the latest RD intervention in the Northeast--the reformulated Northeast Rural Development Program--suggests that rapid progress can be made if community participation is enhanced and decision-making authority is decentralized to lower levels of government or institutions.

THE ECONOMY AND THE RURAL POOR IN BRAZIL

Macroeconomic Environment

Over the past two decades economic instability has been a major determinant of the failure to make headway against rural poverty in Brazil. Real economic growth fell from 9 percent annually in the 1970s to 2.7 percent in the 1980s, and for more than a decade there was little improvement in the per capita standard of living. Inadequate economic and sectoral policies distorted incentives; investment and savings fell; foreign capital evaporated and inflation accelerated—consumer price increases reached 30 percent a month. Migration from rural areas in the 1980s and early 1990s—motivated by unemployment, underemployment and a lack of social and other services—created an enormous additional burden on urban centers, and underscored the urgency of addressing rural poverty to stem rural-urban migration and to prevent the conversion of rural into urban poverty. Nonetheless, six different

adjustment programs between 1986 and 1994 failed, and associated austerity programs cut back investment for rural development—in particular for primary education, targeted health interventions, rural roads, water supply and small farmer agricultural services—further exacerbating the plight of the rural poor (World Bank, 1994).

Introduction of the new currency program—the *Plano Real*—in July 1994 has achieved some degree of macroeconomic stabilization, with inflation already decreasing to less than 20 percent per annum. However, there is broad agreement that macroeconomic adjustment in the short to medium term implies: a tightening of the money supply and government expenditure; high real interest rates; an extension of the investment pause in the farm and rural sector; aggravation of already high unemployment and of the low nutritional status of the poor. The impact on the rural poor is likely to be severe and safety net actions need to be taken rapidly.

Moreover, while successful macroeconomic adjustment may be expected to promote longer-term economic growth with benefits extending to rural areas, experience shows that targeted programs and policies aimed at the socio-economic development of the poorest people remain an essential complement to adjustment programs (Binswanger and Deininger, 1995). In addition, the extent and degree of poverty in some areas and among certain groups in Brazil is so severe that the poor need additional resources in order to benefit eventually from economic growth (World Bank, 1995b).

Rural Poverty

Poverty in Brazil has strong rural and regional dimensions. Around 40 percent of the Brazilian poor live in rural areas, and the incidence of poverty in those areas is more than double that in large cities and urban areas¹. Brazil has a highly skewed distribution of farm land, in terms of both ownership and size compared to other countries, even in Latin America. This results in a dual agricultural system made up of medium- and large-scale commercial operations, and small subsistence farms. This system is capital-intensive but inefficient, resulting in low productivity

with reduced levels of agricultural employment and self-employment (World Bank, 1994).

Northeast Brazil. Within rural areas, the Northeast has long constituted the single largest concentration of poverty in Latin America. This region, covering nine States and part of a tenth², accounts for 19 percent of the total land area in Brazil and 30 percent of the country's 144 million population (1990). More than half of all Brazilians living in poverty, and almost two-thirds of the country's rural poor, live in the Northeast. According to the Ministry of Planning (SEAIN, 1994), some 12 million rural inhabitants of the Northeast live in extreme poverty, with annual per capita income under US\$214—less than one-tenth of the national average.

Health and social indicators attest to the poor quality of life in the Northeast, compared to the rest of Brazil³. The region has:

- a life expectancy of 58.8 years compared to the national average of 64.9 years (1988);
- some 34.5 percent of its population aged 10 years or more with zero to one year of education, compared to 18.1 percent nationwide (1990);
- labor productivity—expressed in terms of minimum wage—at about half the national average (1988);
- child mortality rates that have risen again after some decline during the 1970s and 1980s;
- over 19 percent of children (UNICEF survey, 1989-1991) facing serious (6.8 percent) or moderate (12.4 percent) malnutrition compared to progressive improvements in other regions;
- 57.9 percent of households lacking water supply compared to 27.9 percent nationwide (1988); and
- almost 84 percent of households—73 percent in urban and 97 percent in rural areas, without access to proper sanitation facilities, compared to 52

percent nationwide—39 percent in urban and 92 percent in rural areas (1984).

Among the underlying causes of rural poverty in the Northeast are the relatively poor resource base of large parts of the region, and agro-climatic conditions that make them vulnerable to drought (Hall, 1978; Livingston and Assunção, 1989). About 40 percent of the Northeast's rural population lives in a semi-arid zone—the *sertão*—characterized by poor soils and severe, cyclical and often protracted drought. The “drought polygon” in the semi-arid region includes most of Ceará, Rio Grande do Norte, Paraíba, Pernambuco and Bahia and smaller proportions of all the other Northeastern states, except Maranhão. The remainder of the rural population lives in areas that are generally more humid and have better soils, the coastal belt and the *agreste*, the drought-prone transitional zone between the forest and the semi-arid area.

Additional constraints include the skewed access to land and the virtual absence of a functioning rural financial system for the poor (Anderson, 1990). As a result, Northeast agriculture is characterized by low input use and slow rates of technology adoption (Kutcher and Scandizzo, 1991; Brandão, 1988). Productivity is low, with output per farm worker less than half that of other regions. Overall Northeast agricultural GDP growth was negligible during 1991-1994.

The major elements of the rural economy in the Northeast are: food crops, including fruits and vegetables; extensive livestock grazing by larger farmers; and basic food production and small-scale animal husbandry by the tenants of larger farmers, or small-farm owners. The rural poor in the Northeast, including smallholders, landless laborers and sharecroppers, rely increasingly on a complex of activities: traditional subsistence agriculture; cash crops—mainly cotton and cashew; casual agricultural and non-agricultural work; and remittances from family members living in cities.

Government efforts to address the underlying causes of poverty in the Northeast have been undermined by the macroeconomic instability and chronic fiscal deficits of the past decades. The implicit tax resulting from inflation has penalized the poor

disproportionately. Slow growth has depressed rural employment and exacerbated poverty. It is anticipated that the short-term negative social impact of the macroeconomic stabilization program will be most severe in the Northeast, particularly in rural areas (World Bank, 1994). Renewed efforts are therefore required to design effective, targeted programs of RD for the Northeast.

RURAL DEVELOPMENT STRATEGIES⁴

The chronic poverty of the Northeast has led the Federal Government to implement a range of RD initiatives targeted at rural areas, many of these based on the integrated rural development (IRD) model promoted by aid agencies during the 1970s and 1980s. RD programs in the Northeast coalesced around two themes: (i) drought relief and discrete sectoral projects, and (ii) the integrated development of selected areas. The first approach employed emergency relief programs or projects to increase the productivity of scarce water resources—including large public irrigation schemes, as well as other sectoral initiatives. While the budget impact of these projects has been significant, their poverty effects have been limited and often temporary.

The second approach included two generations of integrated subregional development programs that were supported by the World Bank (WB) and other donor agencies. These programs initially featured land regularization and agricultural modernization, but later evolved into classic-style integrated rural development projects designed to improve agricultural efficiency, raise rural incomes and increase employment. The first generation of projects, known as POLONORDESTE (Program of Integrated Development for the Northeast), was supported by the WB through 12 IRD projects in nine states approved between 1975 and 1983. Project costs totaled \$1,306 million, with the WB contributing \$457 million. The second generation covered ten states, with project costs totaling \$1,722 million, of which \$827 million was provided in WB loans under the Northeast Rural Development Program (NRDP) approved between 1985 and 1987.

Recent development experience from developing countries has highlighted the importance of enhanced community participation and decentralized mechanisms for

RD as key elements of a successful RD strategy. Thus, the NRDp has been reformulated to build on the positive experiences associated with the limited but innovative community-based components incorporated in the original NRDp, and to put in place a more decentralized system for some aspects of project development.

Integrated Rural Development

Rural development⁵ has been defined as “a growth strategy for a particular target population—the rural poor. It involves extending the benefits of development to those whose futures lie in the pursuit of a livelihood in rural areas” (World Bank, 1974). The RD strategy developed during the 1970s to tackle rural poverty by practitioners and development agencies, particularly the WB, was based on the IRD model. Through its area development projects, the WB supported many IRD programs. Project initiatives tried to achieve synergism between the various program elements by using an integrated or “central planning” approach to local development. IRD programs typically contained similar components. They emphasized increased agricultural productivity as the basis for raising rural incomes, while recognizing the synergistic contribution to further improvements in people's quality of life and their overall productivity from better education, health and other basic services.

However, difficulties with project implementation emerged early on (Binswanger, 1994). Government line agencies were perceived as inefficient, technically incompetent, understaffed and philosophically conservative. Dissatisfaction with their performance as program implementation agencies led administrators to advocate the creation of new, autonomous implementation units designed to by-pass the line agencies. Unfortunately, experience suggests that “[a]lmost nowhere have these new administrative units been able to survive in the local political and bureaucratic establishment” (Lacroix, 1985: 20), and they function only as long as they have the financial and administrative backing of an external aid agency. Financial arrangements for implementing RD were also problematic and characterized by excessive delays in the release of funds and lack of counter-part funding from national agencies, both of which severely retarded project implementation (Shah, 1994).

Sub-projects for RD are usually small, often quite simple, and widely dispersed. Central planning for hundreds of differentiated projects and localities is likely to fail because of the location-specificity of conditions and needs. Although RD projects did often complete a significant amount of infrastructure, they did poorly on other components because systems were not able to handle the complexity of multi-agency, multi-project coordination associated with a centrally planned and executed effort. As WB project evaluation reports amply document, the desired synergism was not achieved, and by the mid-1980s disappointment with RD performance has led to the development of a coherent critique of the IRD approach (World Bank, 1987; GTZ, 1993).

Apart from operational difficulties associated with institutional and financial design, a more serious critique of the IRD model centered on: the limited focus of RD projects on increasing agricultural productivity; the insufficient attention paid to the wider context of national macroeconomic policy; the failure to develop technological packages that were sufficiently flexible to deal with local conditions; the lack of attention to sociocultural and institutional factors; and the scarcity of trained local manpower (Lele, 1979).

In addition, Ruttan (1975) identifies the difficulty of scaling-up from successful RD pilot projects to the regional or national level as the result of not being able to maintain the intensity of human resources devoted to organization, management and technical assistance. "Furthermore, access to the higher decision-making levels of government and the administrative freedom to tailor programs precisely to local conditions are frequently sacrificed to administrative convenience when projects are generalized. Highly centralized administration of national programs makes it difficult to carry out the experiments with program content and delivery methods that are essential if rural development programs are to meet the diverse needs of rural areas" (Ruttan, 1975: 15).

Increasing concern with RD performance led the WB (1987) to undertake its own review. Based on an in-depth analysis of completed project reports, a range of problems were identified: lack of a conceptual basis for and inadequate preparation

of projects; excessively rigid project planning; adverse policy environment; lack of government commitment; lack of appropriate technology; neglect of institutional development; lack of beneficiary targeting and participation; and, the complexity or coordination problem. In addition, the findings of a study that reviewed the German government's support for RD (GTZ, 1993) reiterated the WB's own findings and concluded that project impact was low and the majority of poor people were not reached, and the sustainability of project benefits was not guaranteed.

Evaluation of Integrated Rural Development Projects in Northeast Brazil

Analysis undertaken in the early 1980s of the Northeast RD programs that had been implemented indicated that they suffered from many of the generic problems identified in the critique of IRD (World Bank, 1983). In particular, they foundered on the following problems:

- lack of viable poverty targeting mechanisms;
- intractable problems of land tenure;
- profound institutional deficiencies reflected in the costliness and inefficiency of development agencies and their favoring of larger producers;
- political manipulation and negative aspects associated with entrenched patron-client relations; and
- the uncontrolled expansion of federal and state bureaucracies.

In the POLONORDESTE RD projects, for example, project funding relied on annual central government budgets. The result was that funding varied significantly from year to year and the method of releasing funds was complicated and protracted. Less than one-third of project funds reached intended beneficiaries, the rest being absorbed by administrative expansion and overheads. Moreover, the Federal Government repeatedly failed to provide counterpart funds, and delayed the release of budgeted amounts with damaging effects on the projects given Brazil's persistent high inflation. Thus, more than a decade of public efforts to fight poverty in the Northeast saw the majority of the rural poor little better off.

SUDENE, the federal agency created to have overall regional responsibility for annual project planning, budgeting, and operation and maintenance (O&M), was not well integrated into the pre-existing, local institutional structures. It became at best an irrelevant institution but was more often a hindrance to project implementation. Although it was an institution designed to focus on a single important element of the government's development strategy, the hoped for benefits of decentralizing project administration to a parastatal were not realized.

Northeast Rural Development Program

Poor performance of the early generation of RD programs for the Northeast (POLONORDESTE) prompted the Federal Government to establish the PAPP, in 1985. Supported by the WB under its NRDp, the PAPP aimed to reduce rural poverty and improve the living standards of small farm families in the Northeast. Until 1993, with the exception of one component supporting small community projects, implementation of the NRDp projects lagged behind schedule, and performance in meeting basic project objectives was weak. General factors that had an adverse impact on NRDp performance included: chronic fiscal deficits and other macroeconomic distortions; persistent counterpart funding shortages; widespread deterioration of the government institutions responsible for NRDp implementation; highly-centralized, non-participatory decision-making, administrative and financing arrangements; institutional instability; and investments that did not reflect beneficiary priorities, and thus lacked community sense of ownership (Tendler, 1993).

However, despite these general criticisms of IRD, which offered valuable insights and suggestions for change, they suffer from over-generalization and a tendency to concentrate only on aspects of programs that did not work. In reality, each IRD project was a complex of successes and failures. For example, in the Northeast programs, certain features of the RD process did work, even if in spite of rather than because of the design of the official RD program. Tendler (1993) highlights the ability of actors who were not originally included as project participants to mobilize substantial additional resources against a backdrop of severe fiscal austerity at the time the projects were being implemented. "A

considerable part of these additional resources came through municipal governments. Yet they had no formal role in the Northeast projects because they are typically seen as bankrupt, clientelistic, and technically inadequate,...The way in which the municipalities were drawn into resource mobilization, moreover, transformed them into a source of healthy outside pressure on *state* agencies to behave accountably, get things carried out on time, keep costs down, and use less sophisticated and capital intensive standards. Bank staff had tried, often to no avail, to accomplish the same thing" (Tendler, 1993: xxii).

Apart from mobilizing additional resources—an unanticipated program benefit, a few other program elements also had a positive impact. In particular, the community participation component—*Apoio para Pequenas Comunidades Rurais* (APCR)—that represented only 16 percent of total NRDp project costs achieved a high degree of success. With the assistance of an average of 36 community agents and supervisory staff per state, the APCR made grants of up to US\$10,000 to associations in communities of less than 5,000 inhabitants: 65 percent for community-owned ventures; 20 percent small works projects; and 15 percent for institution-building in community organizations. The community associations set up under APCR largely bypassed existing municipal governments and went directly to the people, i.e., existing community organizations and associations, and rural labor unions. Municipal authorities, however, were often represented on *ad hoc* municipal councils; sometimes dynamic mayors went out of their way to build up project resources, and sometimes project staff sought them out (Tendler, 1993).

Projects supported by APCR relied on community planning and implementation, stressed community organization and contracted out needed technical expertise. They acknowledged the expressed needs of communities; their poverty alleviation impact was positive; the cost per family relatively low; and disbursement and commitment rates far exceeded those of other components (Tendler, 1993).

Since the late 1980s, donor agencies have, in general, tended to withdraw from the ambitious agenda of the 1970s and support more traditional sector-oriented programs or projects, each dealing with a specific component of RD, such as

agricultural extension, small-scale irrigation, rural roads, primary education or health care. Support for rural poverty reduction has, thus, become highly selective, as it has been nearly impossible to support the full array of interventions that are required for successful rural poverty reduction.

By withdrawing from an integrated approach to RD, donors have left the complexity and other implementation problems in the hands of country governments. They have not disappeared just because the donor community has withdrawn from them. The question of how to implement the investment and support strategies that are recommended for rural areas is left unanswered (Parker, forthcoming). The failure of IRD in general, and the earlier generations of Northeast RD programs in Brazil in particular, left a policy vacuum as academics and practitioners struggled to find new ways to address rural poverty. The general failure of development agencies to confront the central challenge of RD—namely to tackle the complexity associated with providing a range of local goods and services that local people demand—is likely to render RD initiatives ineffective.

NEW OPPORTUNITIES FOR RURAL DEVELOPMENT

Despite the critiques of IRD, the essential justification for an integrated approach remains: “Basically, arguments in its [area development] favor stem from consideration of the often complex nature of the target group situation, which calls for specific programs locally prepared and tailored to local conditions” (World Bank, 1974: 27). The fallacy of the policy response has been to assume that the complexity associated with RD is simply a planning issue that can be dealt with through having smaller, single-sector projects (GTZ, 1993). Thus, the response to the criticisms of IRD projects has been partial, sidestepping rather than confronting the issue of complexity, and giving insufficient attention to structural problems that limit the effectiveness of desirable policy reforms. It has not been fully recognized that, at a local level, the coordination issues are often less complex and transparent than at a central level, and that local institutions may have the information, incentives and ability to achieve the desired synergism (Binswanger, 1994).

In this respect, Ruttan (1984) points to the lack of any sustained effort as part of

RD projects to develop local government. He highlights the failure “to understand the difference between decentralized administration and decentralized governance—between locating the administrative offices of centre ministries at the provincial or district level and the strengthening of the fiscal and administrative capacity of local government” (Ruttan, 1984: 395).

Greater decentralization of power and authority to lower-level governments and communities may provide one mechanism through which the complexity issue may be addressed (GTZ, 1993; Parker, forthcoming). Facing the complexity issues associated with RD on their own, some developing countries have developed new policies and programs that attempt to build on the positive features of an integrated approach. These programs address the coordination problem through processes of decentralization that grant greater decision-making autonomy to local-level institutions. Parker (forthcoming) provides a review of some recent decentralization experiences with decentralized RD, particularly in Latin America.

Decentralized Rural Development

The interest in decentralization as a mechanism for transforming society is not new. In the second-half of the twentieth century, practically every country has experimented with some form of decentralization or local government reform with varying aims and outcomes (Cheema and Rondinelli, 1983; Campbell et al, 1991; Crook and Manor, 1994; Meenakshisundaram, 1994). The present level of interest in decentralization is pervasive, and Dillinger (1994: 8) notes that “out of 75 developing and transitional countries with populations greater than 5 million, all but 12 claim to be embarked on some form of transfer of political power to local units of government.”

Early initiatives tended to regard decentralization as a desirable end in itself—contributing to greater participation and bringing decision-making closer to the people—rather than as a means of achieving improved RD outputs and outcomes (Parker, forthcoming). The outputs of RD are the tangible goods and services provided by the range of decentralized institutions involved. Ultimately, this will involve the task of assigning powers and responsibilities to the different institutions

on a sectoral basis at the subfunction level. Some countries, especially in Latin America, have worked through the assignment process and implemented programs of decentralized RD that address the three dimensions of political, fiscal and institutional decentralization, e.g., Argentina (World Bank, 1990), Chile (World Bank, 1992b), Colombia (World Bank, 1989), and Venezuela (World Bank, 1992a).

There have, however, been a number of recent developments that distinguish the present wave of decentralization from earlier attempts. First, democratic institutions have been established and/or their role extended in many countries. In Latin America, in particular, military regimes have been replaced by elected civilian governments, and local government officials—mayors and council members—previously appointed, are now elected. Second, most of the countries presently involved in decentralization initiatives recognize the importance of providing financial resources to decentralized institutions to permit them to carry out their powers and responsibilities. Lack of adequate funding for lower-level institutions was the single most important factor that undermined many of the decentralization attempts of the 1970s (Cheema and Rondinelli, 1983) and 1980s (Shah, 1994). Third, there is a growing realization that many types of institutions can actively participate in decentralization efforts. There has been widespread privatization of services that can be delivered on a commercial basis. In addition, it has been recognized that NGOs and community-level organizations have a significant role to play in improving service delivery and for providing improved mechanisms for targeting disadvantaged groups. These developments are likely to enlarge considerably the scope for overcoming some of the major factors that undermined earlier decentralization efforts, and to improve the prospects for sustaining decentralization initiatives once they have been established.

Parker (forthcoming) emphasizes decentralization as a multi-dimensional process that proceeds with successes and setbacks. Decentralization initiatives are therefore subject to a continuous process of modification reflecting changes in social, political and economic conditions. After reviewing a wide array of experiences with decentralized RD, he proposes a “soufflé theory” of decentralization that recognizes the impossibility of designing a single strategy for decentralization. Instead, the

importance of the different political, fiscal and institutional elements of decentralization components are illustrated, and factors that appear to have either a beneficial or detrimental impact on RD outputs and outcomes are suggested.

Nevertheless, there remains a gap in our understanding of the various dimensions of decentralization. The degree and different types of patterns of decentralization have not been described and measured in a consistent way across experiences or over time, so that at best only an anecdotal characterization of the decentralization of RD and rural service delivery programs can be made. Without consistent description and measurement of the patterns of decentralization, it is not even possible to assess the issue of whether greater decentralization in some form is associated with greater success in RD and rural service delivery, or whether it results in better targeting of the poor and reduced poverty levels.

The 1988 Brazilian Constitution

Brazil is considered one of the most decentralized federations in the world (Shah and Bomfim, 1994). It has three tiers of government, namely the federal government, 26 states and a federal district, and approximately 4,300 municipalities. The 1988 Constitution clarified the respective roles of the different levels of government in the provision and financing of public goods and services. Purely local functions, such as elementary education, preventive health care and intracity transport have been assigned exclusively to the municipal level. The responsibility for public services that are national in scope, such as defense and foreign affairs, remains a federal function. The remaining functions have been designated as shared responsibilities of the federal and state levels, with the federal government setting norms and the states being responsible for the delivery of services. Unfortunately, the *de facto* assignment is at substantial variance with the *de jure* assignment and the federal government's direct involvement in purely local functions is pervasive (Shah, 1991).

Under the 1988 Constitution, most of the responsibility and resources for implementing development programs were decentralized from the Federal Government to the states, municipalities and local communities. Correctly

managed, greater decentralization has the potential for removing the previously insurmountable financial and managerial problems associated with the overcentralization of project implementation—which was identified as a major constraint in earlier interventions in the Northeast—by enabling local communities to play a far more active role in project selection and implementation.

The Reformulated Northeast Rural Development Program

Following the failure of the earlier generations of RD programs in the Northeast, the Federal government and the state governments agreed with the WB on a radical reformulation of all ten NRDp projects, in mid-1993. The projects were reformulated and transformed in their entirety into a community-based development program, drawing both on the successful experience of the small community projects component and on lessons learned with similar schemes elsewhere in Latin America, particularly the Mexican Solidaridad program (Fox and Aranda, 1993). The reformulated NRDp covers all members of poor rural communities and not only those with productive assets, extending beyond production and income, based on a *matching grant* mechanism linked to beneficiary contribution towards subproject cost.

Under the reformulated NRDp projects, matching grants are provided to rural community associations to finance small-scale subprojects identified by these groups as priority investments to improve community well-being. Choosing among eligible subprojects, the beneficiaries solicit investments that respond to their most critical needs. There are two different delivery mechanisms for screening, approving and implementing community subprojects:

- **State Community Schemes**—*Programa de Apoio Comunitario* (PAC), in which rural communities submit their subproject investment proposals directly to the State. The State screens, approves and releases funds for subprojects, interacting directly with the beneficiaries; and
- **Pilot Municipal Community Schemes**—*Fundo Municipal de Apoio Comunitario* (FUMAC), in which subprojects identified and prepared by

rural communities are presented to project Municipal Councils for approval. The Councils encourage local-level consensus-building on priority needs, and screen and submit subprojects for subsequent financing by the State.

The new program became effective on September 30, 1993, utilizing an undisbursed balance of US\$484.7 million, or close to 60 percent of the loan amount approved for NRDp projects (Table 1). Poorly performing components implemented by public-sector agencies such as agricultural extension, research and credit were discontinued. More than half of the undisbursed funds were allocated to PAC. Under PAC, proposals generated by poor rural communities⁶ for investments of up to US\$40,000 can be approved by state technical units—*Unidades Técnicas* (UTs)⁷—on a first-come, first-served basis.

A further US\$20 million was allocated to FUMAC, under which municipal councils were set up to screen and establish priorities among the various proposals generated by communities, or producer associations in the municipality, before submitting their list for UT approval. A component was retained for institutional support, principally to provide technical assistance and training to UTs, municipalities and communities in all aspects of PAC/FUMAC operation, and for impact evaluation. A further US\$93.2 million was left unallocated, to permit expansion of FUMAC if successful, or to pilot new initiatives.

Due to the increased poverty focus, maximum WB participation in the PAC/FUMAC components was raised from 50 to 60 percent. Responsibility for decision-making over annual plans and budgets, as well as execution, was delegated to the states while the role of SUDENE—the federal parastatal that had sweeping powers and responsibilities under previous RD programs—was reduced to monitoring and evaluation. All counterpart funding became a responsibility of the states. These were also required to meet the full cost of UT staff salaries and 80 percent of their operating costs, the other 20 percent remaining under WB financing.

The ground rules for PAC and FUMAC have been established in operational manuals and promoted by UTs through public awareness campaigns. In compliance

with the Brazilian requirement for associations to receive public funds, communities benefiting from PAC or FUMAC first have to form a legally-registered association. They are then required to accept full liability for all aspects and costs of subsequent O&M of the investment, and to make a counterpart contribution in cash or kind (e.g., labor or materials) of at least 10 percent to any sub-project they propose.

Within the US\$40,000 cost limit⁸ many types of sub-projects are eligible for support, although no indicative targets were set for specific project types. They are broadly classified as: *productive*—small-scale agro-processing, small dams, small-scale irrigation, tractors for communal use, brick-making, clothes making; *social*—community water supply, sanitation, school or health post rehabilitation; or *infrastructure*—electricity supply connections, local road improvements, small bridges or fords. While the precise cost-sharing arrangements vary between productive, social and infrastructure subprojects, the average sharing arrangements are: World Bank—60 percent; Federal and State Governments—30 percent; and beneficiaries—10 percent.

Up to eight percent of sub-project costs can be used to hire technical assistance with design or execution, the latter for a period of less than a year. All fixed installations have to be on communally-owned land. Ineligible items include all individual acquisitions, land purchase, beef cattle, major new items of infrastructure, tobacco or alcohol processing and installations connected with religious or political organizations. Although the government does not recover its share of the costs of PAC and FUMAC sub-projects, beneficiaries pay into the recipient association to meet its liability for O&M and for eventual capital replacements.

PAC and FUMAC sub-projects are all ultimately approved by the state UT and operate under the same ground rules. The basic difference is that FUMAC directly involves the municipality, which takes on a more dynamic role in getting its communities organized and defining with them priorities for investment. Each of the 150 municipalities participating in the pilot FUMAC phase (about 10 percent of all municipalities in the Northeast) is required to form a municipal council with a

majority of members *not* representing the local political or executive authority. Typically these non-government members include heads of a selection of community associations, plus representatives of the rural labor union, religious groups and other local NGOs involved in rural or community development. Councils are normally chaired by the mayor and from the government side include one or more members of the municipal administration, some elected municipal councilors and the local officer of the state agricultural extension service (EMATER). Selection of the community proposals to be sent to the UT for approval and the setting of priorities are by open debate, with differences of view settled by vote.

PERFORMANCE AND EVALUATION OF THE REFORMULATED NORTHEAST RURAL DEVELOPMENT PROGRAM

The analysis of the performance of projects under the reformulated NRD^P, including both PAC and FUMAC subprojects, draws upon the following sources:

- A desk review of the following unpublished and preliminary studies, mostly in draft format: (i) special evaluation studies of FUMAC, conducted by UTs for each of the ten States, based on their implementation experience and specific case studies; (ii) the University of Michigan's *Baseline and Popular Participation Study*, initiated in 1993, and followed by field surveys in July-October 1994, covering 38 communities in 23 municipalities of nine states⁹ (Kottak et al, 1994; Kottak and Costa, 1994); (iii) a series of studies under the "ARIDAS Project on Regional/Municipal Development in Semi-arid Areas of the Northeast" (ARIDAS, 1994); (iv) and an evaluation of NRD^P, commissioned in 1994 by the Federal Secretariat of International Affairs (SEAIN, 1994).
- Both structured and unstructured interviews with a large number of program participants—including beneficiaries; community organizations; FUMAC Municipal Councils; NGOs; rural municipalities, comprising mayors, legislative members and administrators; and UTs—on a variety of project related aspects, as well as field visits to several of each of the major categories of subprojects analyzed.

- Data supplied by the states to the Simplified Project Monitoring System (SSMP) of the World Bank's Recife Office. The SSMP is the major data base for the reformulated NRDp projects from which the performance of the project is monitored. The SSMP stores key information on each subproject and is updated on a monthly basis;
- Sample surveys by the UTs of participating states. These surveys, the major source of information on the NRDp project impact since reformulation, evaluate the impact of a group of 52 PAC/FUMAC projects (8 different types), out of a total of 177 (and 27 project types), obtained by using random sampling procedures¹⁰. The eight major types of projects analyzed were: water supply; rural electrification; manioc flour mills (*casas de farinha*); tractors; house improvement; rice mills; clothes-making; and child day care centers. These eight project types account for more than 50 percent of all projects completed or under implementation in the ten States.
- Several unofficial reports and other documentation from a number of World Bank and FAO missions supervising and reviewing the experience of the reformulated NRDp projects.

Implementation to Date

Statistical information from the SSMP on the performance of all ten participating states in the reformulated NRDp is presented in Tables 1 and 2. Depending on the state, the reformulated NRDp became operational between October 1993 and January 1994. The general performance of the program as of February 1995 is reviewed below.

Disbursements. Table 1 presents disbursement progress (including funds already committed) since reformulation for each participating state, as of February 15, 1995. In just over a year, a total of US\$108.5 million has been disbursed or committed under the program, consisting of US\$71.6 million actually disbursed and another US\$36.9 million already committed by the states. It is estimated that overall the program's current disbursement rate is significantly higher than its "historical" equivalent before reformulation¹¹. During the eight years of

implementation of the original NRD (1985-1993), an average of less than US\$43 million were disbursed per annum.

Individual disbursement profiles have also been analyzed. In the second half of 1994, disbursements increased markedly for six of the states (Bahia, Minas Gerais, Sergipe, Maranhão, Piauí and Paraíba) but they remained low for the others (Pernambuco, Alagoas, Ceará and Rio Grande do Norte). Bottlenecks in the flow of loan funds from the Federal Treasury to the states were responsible for most of the low disbursement rates. Other disbursement constraints, that have since disappeared with the abolishment of the Ministry of Regional Integration, tended to limit funding approval or delayed disbursements to individual states.

Subprojects and Beneficiaries. As of February 25, 1995, subprojects were being implemented or completed in 898 municipalities, equivalent to 71 percent of the total eligible municipalities (1,258); about 11 percent of these are FUMAC municipalities (Table 2). On average, 5.9 subprojects have been approved for each municipality under FUMAC, against 4.7 under PAC. More than 21,000 PAC and FUMAC subproject proposals have been submitted by communities in the ten participating states. Of the total, more than 15,000 subprojects have already been approved, of which 5,931 are completed and/or under implementation, and another 379 awaiting the final transfer of funds to the beneficiary associations. Negotiations—on the terms of agreement and other issues—with beneficiary associations were in process for the remaining 8,925 approved subprojects (Table 3).

Some 120 different types of subprojects have been implemented and/or completed. Of these, 55 percent are infrastructure subprojects, 42 percent productive subprojects and 3 percent social subprojects. Subprojects related to water supply constitute the largest single category of submissions (19.3 percent), followed by electrification (17.6 percent), tractors (9.7 percent), manioc flour mills (8.0 percent) and a variety of others (Table 4).

The average cost per subproject (around US\$21,000) varies greatly among project types, ranging from US\$10,000 for tubewells to US\$36,500 for tractors, but never exceeding US\$40,000 (Table 5). Costs of the same subprojects often differ

substantially between states. Of the approved subprojects under implementation and/or completed, some 13 percent are under FUMAC. While there is no significant cost differential between PAC and FUMAC subprojects (Table 6), FUMAC subprojects involve, on average, 40 percent more beneficiaries, resulting in a significant lower implementation cost per beneficiary.

Qualitative Analysis

Previous studies of the reformulated NRDp projects mentioned earlier have focused on FUMAC. They provide qualitative analyses that primarily address institutional issues, such as decentralization; municipalization; community organization and participation; transparency in decision-making; and the role of the State in providing training and technical assistance to municipalities.

The following positive findings, which are consistent with that of the field visits and interviews by the authors, are cited in the various studies as the reformulated NRDp's main achievements:

- improvement in the living conditions and nutritional situation of the rural poor;
- positive multiplier effects of successful subprojects;
- support to rural communities and associations, and recognition of their potential;
- incentives and other positive contributions to community organization and participation;
- increases in value added of rural activities, production, incomes, and employment generation; and
- containment of rural-urban migration.

On the other hand, the following aspects were identified as being in need of improvement:

- bureaucratic procedures and excessive documentation requirements;
- delays in subproject approval and fund disbursements;
- lack of technical assistance on the part of UTs;
- funding limitations and subproject cost ceilings;
- unavailability of local technical staff to assist communities in preparing and implementing subprojects;
- lack of municipal participation and funds to contribute to subproject costs;
- weak participation of communities in prioritization of subprojects;
- political interference¹²;
- lack of sustainability; and,
- insufficient knowledge of the program by communities.

Results from field visits and interviews, as well as the unofficial reports of World Bank and FAO missions, all stress that the program's overall impact on the rural poor is generally positive, and that available evidence indicates that FUMAC subprojects meet the program's stated objectives better than PAC subprojects. While there is consensus that the reformulated NRDp as a whole and its constituent elements PAC and FUMAC are successful, the missions also identify some areas that need improvement, mostly under PAC, which are similar to those already listed, specifically: mistargeting and lack of transparency; design problems, particularly with regard to insufficient technical criteria, excessive bureaucracy, and lack of adequate community participation in subproject selection and execution; unsustainability of project investments and of beneficiary associations; lack of counterpart funds; political interference; and, lack of subproject supervision and follow-up. However, the reports also concur that these problems can be corrected or circumvented with improved design criteria aimed specifically at these issues.

Socio-Economic Impact Evaluation

A full impact evaluation of community investments financed under the reformulated NRDp is difficult as the program has been operational for just more than one year. Definitive conclusions can only be drawn from those subprojects that have been completed and are fully operating (Table 3). However, by taking a sample of these subprojects and using data obtained from field surveys of the subprojects and their beneficiaries by the different UTs, a socio-economic impact evaluation was conducted in November-December 1994 for eight main project types, which account for more than half of all subprojects under implementation and/or completed and of total subproject costs.

Data were obtained for 52 sample subprojects in the various states, of which 30 were under PAC and 22 under FUMAC. First, quantitative benefits per project type were assessed based on weighted averages obtained from the subprojects surveyed in that category, and results (appropriate to each subproject type) derived per beneficiary. Second, these results were extrapolated to all the subprojects under implementation or completed in each subproject category. Analysis of sustainability of the communal investments, in terms of O&M as well as capital replacements was carried out for some of the productive subproject types. The financial analysis covered the ten states as a whole. Given the sampling nature of the exercise and the variations that exist between individual states in terms of subproject costs and performance, results that have been quantified in the overall evaluation (Tables 7 and 8) should be treated with care.

The analysis of sample cases surveyed by the UTs indicates that PAC and FUMAC have generally made a positive impact on the quality of life and, in the case of productive subprojects, on employment and incomes of beneficiary communities or associations. In addition, the analysis shows that the social internal rates of return for productive subprojects are extremely high (greater than 50 percent), with the cost effectiveness results also impressive—in terms of both employment creation and social benefit-cost ratio. Financial sustainability of these subprojects is also more than satisfactory.

Cost-effectiveness was determined by estimating, where appropriate, the total investment cost per additional job created by the subprojects, as well as social benefit-cost ratios. Benefit-cost ratios are high (greater than 3.0) for all subprojects analyzed, and the initial investment per additional job created was low for all productive subprojects (more than 10 times lower than in the industry and service sectors). Social internal rates of return were also estimated for the four types of productive subprojects; they all exceed 50 percent¹³. Both analyses were made assuming constant benefits over an eight-year subproject life cycle (Table 7). In addition to these positive impacts, benefits are largely concentrated in the subprojects' beneficiary communities.

The financial sustainability analysis of productive subprojects shows that while beneficiary associations receive a one-time investment grant from the program, this investment is financially sustainable because cost recovery through user fees by the average beneficiary association is adequate to cover both O&M and replacement of the original investment long before the end of its useful economic life (Table 8).

Rural Water Supply, 19 percent of subprojects submitted. Since drought is a frequent occurrence and one of the major threats to life in the Northeast, communities express great demand for this type of subproject. Due to variation in physical conditions among the different areas, works implemented differ according to the source of water (surface or groundwater) and the type of infrastructure required (new or rehabilitated well, reservoir, fountain). The average cost is about US\$20,000 per subproject¹⁴ in the sample, or US\$142 per beneficiary. Rural water supply projects provide a precious resource that previously was obtainable only through long hours of walk or had to be supplied by the municipality (by *carro pipa* or water truck), usually at great cost. The subproject results are savings in time, effort and cost, as well as improved health through better sanitation. However, these gains are difficult to quantify. It is estimated that approximately 140,000 families will benefit from the 976 subprojects under implementation and/or completed in this category.

Rural Electrification, 18 percent of subprojects submitted. This project type

on average costs US\$20,000 or about US\$7,800 per km of network, and on average benefits 48 families. Providing electricity to roads, households, shops and small-scale processing units, the subproject contributes not only to the obvious improvement in quality of life of the local inhabitants (including access to radio, television and the use of domestic appliances), but also generates additional employment and incomes from the increased operation of local businesses and industries. In total, it is estimated that more than 36,000 families will benefit from the 758 rural electrification subprojects under implementation and/or completed, with more than 24,000 houses connected to electricity and 600 jobs created.

Manioc Mills, 8 percent of subprojects submitted. *Casas de farinha* are a familiar structure in rural areas in the Northeast. Although many have been built under past programs, including the APCR component of the original NRD^P, they are still popular with a population for whom manioc continues to be a major food crop, particularly in the form of flour. These subprojects cost around US\$20,000 and, on average, involve 108 producers of whom 68 are members of the association that owns the mill and the rest are farmers who come to the mill for processing.

The principal benefit from this type of project is a reduction in processing costs—plus, in some cases, savings in transport to other mills located outside the project area—leading to increased production (both of manioc flour and subproducts) either for sale or family consumption, and therefore higher incomes (in some cases, the quality of the product is also improved through particular care of the association members). Because faster processing allows the producers more time for planting and harvesting, the installation of manioc mills is associated with an increase in the crop areas, at least where access to land is not a problem. At the same time, the subprojects generate additional jobs for both men and women working in the mills, whose mechanization generally results in better working conditions.

It is estimated that the 380 subprojects that were under implementation and/or completed will benefit around 30,000 families, produce annual incremental income of about US\$377 per family, and generate more than 11,000 jobs (including

additional farm employment). The comparison between receipts and operating and maintenance costs associated with manioc mills indicates that this type of investment is financially sustainable, leaving the association with enough funds to amortize the mill and its equipment in 5 years as compared to its average useful economic life of 12 years.

Tractors for Communal Use, 10 percent of subprojects submitted. This subproject type, which costs roughly US\$33,000 or US\$440 per beneficiary, benefits on average some 76 farmers. Not surprisingly, tractor use has facilitated increases in the area under cultivation for a number of crops (manioc, maize, beans, cashew, horticulture crops and, to a lesser extent, sugarcane and dry season rice) and in their yields and productivity, resulting in a significant gain in the incomes of the corresponding association members. Also, as elsewhere in the world, tractors are labor-using when used primarily in pre-harvest production activities. In total, the 198 tractor subprojects under implementation and/or completed will benefit 15,000 producers and create 9,900 jobs (including the equivalent of additional person-days from crop cultivation). The net income of the association owning the tractor, after deduction of all O&M expenditures, is sufficient to cover the initial investment after a period of 5 years, which is much less than its average useful economic life of 10 years.

Rice Mills, less than 2 percent of subprojects submitted. The benefits from rice mills are similar to those of manioc mills, i.e., reduced processing costs, savings in time and effort, an increase in planted areas, production (including for subproducts for animal feed), incomes and employment. In addition, rice mills allow association members to produce and sell milled rice rather than unhusked rice at a much lower cost than prior to the project. At an average cost of US\$11,000 or US\$234 per beneficiary (on average 47 association members, plus an additional 7 producers who process their rice at the project mill), this type of subproject brings an annual incremental income of US\$330 per beneficiary, resulting from savings in processing costs and increased production of rice and its subproducts. The 62 subprojects under implementation and/or completed in this category will benefit more than 2,900 producers and create some 400 jobs. Milling revenues net of O&M costs allow the

rice mill association to fully amortize its plant after 5 years, compared to an average useful economic life of 12 years normally assumed for this type of investment.

Clothes Making, 2 percent of subprojects submitted. The most popular type of non-agricultural productive projects, clothes-making subprojects cost US\$9,100 or US\$109 per beneficiary, with each association comprising an average of 84 members. The clothes produced are sold on the local market (substituting for imports, which in some cases were the only kind found before installation of the subproject) or at weekly fairs in the area. They generate an additional annual income of about US\$190 per beneficiary. The 88 such subprojects under implementation and/or completed will benefit a total of 7,400 people, create some 1,600 jobs, mostly for women, and generate a gross value of production of about US\$5 million per annum.

House Improvement, less than 4 percent of subprojects submitted. The dwellings of many rural families in the Northeast are in poor condition and often associated with lack of hygiene that can lead to very serious health problems (e.g., the often fatal disease, *chagas*, which is spread by an insect favoring materials like the thatched roofs of traditional rural houses in the "interior" of the Northeast). The average cost is about US\$33,000 per project—US\$460 per beneficiary family (71 per subproject) and US\$90/m², which is low. In specific areas, when the subproject involves strictly rehabilitation and employs local materials and beneficiaries' own labor, the cost can even be as low as US\$33/m². It is estimated that the 116 house improvement subprojects under implementation and/or completed will benefit some 8,200 families in total, and indications are that consequent improvements in the living conditions of these families have an important positive impact on their health.

Day Care Centers, less than 1 percent of subprojects submitted. Another social subproject in relatively high demand is the establishment of nurseries or kindergartens. The 29 subprojects already under construction and/or completed, at an average cost of US\$26,000 or US\$290 per family (91 beneficiary families per subproject), will benefit some 2,600 families. By freeing the mothers from child care

responsibilities during the day, these subprojects increase the capacity of mothers to work and earn additional income, estimated at about US\$230 per beneficiary per year and totaling some US\$605,000. Other benefits include an increase in their time for leisure, rest, educational activities and food preparation.

Technical Evaluation

The quality of most PAC and FUMAC subprojects is generally good, particularly when implemented by private contractors—75 percent of subprojects. With the remaining 25 percent subprojects—20 percent executed by municipalities, with unskilled labor often provided by beneficiaries, and 5 percent implemented by the communities themselves—the quality varies but remains generally fair to good. Only for a very small proportion (less than 5 percent of all subprojects) is construction quality rated as poor.

Nevertheless, some shortcomings were detected in a number of subprojects, namely the overdesign of works due to lack of technical criteria and/or competent technical assistance. Overdesign led to discrepancies in investment size and costs per beneficiary for the same type of projects, both within and across municipalities. In addition, technical assistance provided by UTs or other entities to communities in planning and executing projects, was sometimes inadequate. Despite the availability of funds under NRDp to hire professional assistance with planning or implementation, such assistance is hard to obtain in rural areas—in part because under the reformulated NRDp technical assistance funds were tied to the subproject and could not be released to remunerate contracted professionals if an association's proposal was rejected.

Because of their relatively small size, PAC/FUMAC subprojects generally do not produce significant effects on the environment. However, certain types of projects, by their very nature, produce environmentally undesirable by-products (e.g. from the processing of manioc) or lead to increased use of products that may have a negative environmental impact (fertilizers and pesticides associated with the use of tractors, wood for fuel in cassava and rice mills). Additional consideration should be given to these aspects.

Institutional Assessment

Institutional analysis of the reformulated NRDp and the role played by the various actors in the program yields a generally favorable picture:

Once initiated, *community associations* generally function well, apart from some isolated cases of apathy or of takeover by individuals trying to monopolize benefits. Appointment of office-holders, payment of dues or user fees and accounting seem to be taken seriously by the members. However, some associations do have difficulty with paperwork and the cost of legal registration. They also find it hard to comply with the level of detail required to submit proposals under PAC or FUMAC, although the more than 21,000 subprojects submitted would seem to belie this claim.

Development and performance of the *FUMAC Municipal Councils* are affected by the attitude of the local political power base, especially that of the mayor (*prefeito*). However, in most cases mayors are supportive and the disparate interests represented in the FUMAC councils have found a *modus vivendi*.

Non-governmental organizations have played a mixed role. In many cases, churches, rural labor unions and some more technical NGOs are playing a useful part in subproject implementation in certain states—stimulating and helping with the initial formation of community associations or providing assistance with submission or execution of community proposals. NGOs in these categories see the NRDp as a source of additional funds to support their work. On the other hand, some of those contacted via initial publicity campaigns were unsuited or unwilling to become involved in the reformulated NRDp. Others would only participate if project funds were channeled through them.

Many *rural municipalities* have limited annual budgets and very little unallocated revenue of their own. Since their funds barely cover operating costs, most project municipalities view the reformulated NRDp as a welcome source of additional resources for investment. For the most part, mayors, municipal legislature members (*vereadores*) and municipal administrations have supported

and participated in NRDp, although at times mayors or legislators have attempted to subvert the program for their own ends. Only in a few cases has the weakening of the traditional *patron-client relations* implied by the FUMAC approach aroused open opposition or boycott. In such cases, PAC still operated satisfactorily and allowed beneficiary associations to bypass the municipal authorities and submit proposals directly to the state UTs.

The *technical units* are located within the Planning Secretariat of each state. Most have established several field offices, each with one or more technicians. In some cases UTs also handle other development programs in the state but usually programs of minor importance. That the UTs have generally been successful in promoting NRDp is obvious from the overwhelming community response. However, despite their size (generally 40-60 technicians), UTs find it hard to process the large number of subproject proposals and to provide technical assistance for the preparation and implementation of subprojects¹⁵. To provide sufficient technical support to communities the UTs have in some cases forged successful alliances with NGOs (e.g. the *Associação de Apoio às Comunidades do Campo* in Rio Grande do Norte). Support has also been provided by different state agricultural extension services (EMATER), but their response has generally been poor. In some states, while there is no official alliance between the UT and EMATER, individual extensionists may still support NRDp *ad personam*. UTs themselves receive project technical assistance, mostly contracted from multi- and bi-lateral international agencies, such as IICA, FAO, or GTZ.

Comparison of FUMAC with PAC

The data on subprojects implemented under the program show that FUMAC has outperformed PAC in a number of ways. First, although only 12 percent of total subproject proposals submitted by communities are under FUMAC—the pilot nature of this component necessarily limited its scope of intervention, 16 percent of all beneficiaries are accounted for under FUMAC. Second, although the average cost per subproject for PAC and FUMAC subprojects is similar (Table 6), the number of beneficiaries per subproject is on average 40 percent higher in FUMAC than in PAC, resulting in a cost per beneficiary that is considerably less for FUMAC

subprojects.

Although the socio-economic benefits produced by the two components are similar in many respects, there is ample evidence to assert that greater community participation and transparency have been achieved through FUMAC, and that FUMAC-generated projects are able to meet the program's criteria better than PAC subprojects through better selection and prioritization by beneficiaries. FUMAC has also contributed to increased community organization and capacity to identify, plan and implement their own projects. In addition, FUMAC has succeeded in mobilizing substantial additional funds mainly from municipalities. On average, nearly ten percent of the total project cost comes from municipal contributions in spite of them having no formal cost-sharing requirement in the cofinancing matrix¹⁶.

LESSONS FOR PROJECT DESIGN AND IMPLEMENTATION

Despite the limited implementation experience with NRDp projects since reformulation, certain trends are clear. First, the program has generated unprecedented enthusiasm among beneficiaries and favorable multiplier effects, and mobilized additional public municipal funds. As much as 95 percent of funds disbursed are reaching targeted beneficiaries, most of whom are landless, and diversion of funds for non-intended uses has been sharply reduced. Second, the reformulated NRDp's participatory approach has benefited community organization, increased transparency, and demonstrated that rural communities can influence the allocation and use of resources at the municipal level in order to alleviate poverty. Third, investments funded by the program have been of satisfactory quality and less costly than those executed by public agencies. They also relieved the adverse effects on the rural communities of a severe drought in 1993.

While the reformulated program does not attempt to change the structure of agriculture in the Northeast, it has successfully reached a large number of landless families, as well as land reform beneficiaries. Several field investigations, surveys and studies have assessed the impact of the reformulated NRDp projects. The consensus, from a broad sample of completed and operational subprojects, is that

they have had a positive impact on the quality of life, and in the case of productive subprojects, on employment and incomes of beneficiaries. Implementation of productive subprojects and rural water supply works under the program enabled families to take fuller advantage of improved climatic conditions in 1994 than families not participating, and increased the availability of food and consumer goods due to higher production and income¹⁷.

After several years of experience with new RD initiatives in the Northeast, a measure of success has finally been achieved in effectively reaching the rural poor with targeted interventions that remain grounded in an integrated approach, but without the negative aspects associated with IRD projects of the 1970s and 1980s. While the analyses have shown certain aspects that need improvement in a minority of subprojects, these can be easily rectified by modifications to the project design. These lessons are consistent in many respects with lessons learned elsewhere in Latin America and other regions with similar community-based development programs.

General Lessons for Rural Development

Implementation of the NRDp since 1993 suggests the following three principles are essential components of a successful RD strategy:

- Greater *decentralization* of fiscal and investment decision-making from federal to state and local governments ensures more efficient program administration. In earlier Northeast RD programs, excessive bureaucracy at the federal and state levels created administrative bottlenecks and obscured accountability for project performance, by distancing the beneficiaries from decision-makers.
- Enhanced *participation* in the financing of subprojects generates a sense of ownership and a willingness to share responsibility for the future O&M of project investments. Beneficiary participation in the selection, execution, supervision and financing of project investments ensures that investments respond to felt community needs, generate cost savings and increase accountability at the local level. In the case of FUMAC subprojects, the direct

involvement of communities in the approval and implementation of projects increased the participation of community members in beneficiary associations.

- *Poverty targeting* is essential if poor beneficiaries are to be reached effectively. Poverty-targeting mechanisms should be simple, explicit and monitorable. They should be based on objective criteria, foster greater transparency, minimize political interference in project resource allocation and ensure that project resources reach the poorest communities.

Specific Lessons for Project Design

In addition to the three general principles outlined above, the reformulated NRDp projects have provided the following specific lessons for project design:

- *Project sustainability* is enhanced when municipalities and communities contribute to subproject financing through cost-sharing arrangements, and when there is increased beneficiary participation. For example, the participatory process introduced in the FUMAC component of the reformulated NRDp ensured better selection and prioritization of subprojects by beneficiaries. In addition, those communities that were regarded as being better organized prior to the introduction of the reformulated projects, were the fastest to respond to the new development opportunities provided through FUMAC, and the response and participation were both more sustained. Project sustainability was also greater where the communities' on-going activities were supported by NRDp subprojects, rather than new and often inappropriate ideas.
- *Standardization* of subproject documents, technical designs and unit costs simplifies the subproject preparation and evaluation process. It facilitates the procurement of goods and works, prevents overdesign and improves the quality of subprojects, encouraging greater participation by poorer communities and reducing bottlenecks in the subproject cycle.
- *Technical assistance* should be facilitated through rural communities to

enable them to identify, prepare and implement their own subprojects, thereby augmenting their capacity to compete for investment funds. Technical assistance should also be targeted to weaker municipalities to improve their planning, management and financial capacity.

- A user-friendly *monitoring and evaluation* system facilitates the subproject evaluation process, provides feedback and necessary information to improve targeting and efficiency, and serves as an effective management and planning tool.
- A clearly-defined and well-disseminated system of *checks and balances* is essential to discourage the misuse of funds, and to ensure that decentralization of resource allocation and investment decisions to rural municipalities and communities is not accompanied by an increase in corruption and misappropriation.

Underlying some of the negative observations on project performance are *capacity constraints*. At state level, the UTs are hard-pressed to handle the many routine operations imposed on them. This is exacerbated by the extra demands associated with conflict-resolution and of coping with political pressures from above or below. UTs and municipalities in the case of FUMAC, lack the financial and human resources to provide the range of support that communities, associations and FUMAC municipal councils need to participate in NRDp projects to achieve full effectiveness. In part the problem of capacity, whether at state, municipal, association or community level, could be eased by expanded training and technical assistance.

Some problems, such as the overload of UTs with routine processing of applications or time-consuming planning work by associations, could be eased by further decentralization of project approval. For example, municipalities that have already performed well under FUMAC could be delegated authority to approve priority projects instead of having to refer each to the UT; and simplified documentation could be used for project proposals below a certain cost.

There are also some legal constraints that should be addressed. The formation of

community associations needs to be made easier, and support for the costs incurred should be provided under the program. Current rules governing the receipt and use of government funds, which in some states are interpreted so severely as to make associations try to transform themselves into government bodies, need to be reviewed, reinterpreted and possibly revised. Further decentralization would probably reveal additional incompatibilities between what is needed for operational agility and what laws allow. These inconsistencies would have to be carefully examined and resolved.

Recommendations

The initial positive experience with the reformulated NRDp projects suggests a more decentralized participatory approach to RD is essential. To promote further these concepts, the next generation of RD projects for the Northeast should incorporate the following specific features in addition to those already in place under the existing program:

- Expansion of the community-based FUMAC approach into a *municipal fund program*. As identified above, a major constraint to implementation is due to the UTs being unable to deal with complexity of implementing a wide range of small subprojects. A true municipal fund approach hands responsibility for the management of fiscal resources and project implementation to municipalities and communities, thus further promoting decentralization of decision-making, and encouraging greater municipal cost-sharing of subprojects.
- Implementation of a *poverty-targeting methodology* that is based on a series of poverty-related criteria at the municipal, community and beneficiary levels, backed by a strong system of operational checks and balances to thwart mistargeting and misappropriation of resources.
- Establishment of clear rules for the composition and *modus operandi* of project Municipal Councils, in order to enhance further *participation* and *transparency*, with a large majority of members coming from community representatives and the local civil society.

- *Standardization* of engineering designs, technical and financial parameters, and cost indicators for the most frequently requested subprojects to encourage efficiency in subproject preparation, evaluation and supervision, and minimize design deficiencies. Environmental assessment criteria should receive greater attention. An indicative positive list of eligible subprojects from which to choose—and a negative list of ineligible investments—as well as simplified documentation requirements for smaller subprojects, should further decrease bureaucratic requirements.
- Transfer of funds for *technical assistance* and training to rural communities and municipalities to enable participation of the poorest areas, to foster community capacity and empowerment, and to encourage the active participation of able and competent NGOs and local development agencies.
- Establishment of a system of operational *checks and balances* to promote transparency. Disincentives and penalties against departures from project guidelines, e.g., in the case of misappropriation, mistargeting, faulty project design, lack of participation or lack of proper O&M, should accompany the increased decentralization of resources and decision-making responsibilities to beneficiaries and project Municipal Councils. *Ex post* control should be carried out by the states through the auditing of accounts, and project supervision and monitoring, with a transparent system designed to penalize municipalities and communities that break the established sets of project rules and norms.
- Incorporation of the following measures into program design, in order to reduce the risk of *political interference* and prevent associations from forming themselves only with the purpose of obtaining funds through the program: (i) stricter eligibility criteria and requirements, including establishment of a revolving fund within the association to ensure proper O&M and project sustainability; (ii) technical assistance to promote the program and assist communities to organize themselves; and (iii) establishment of strict criteria for the composition of the FUMAC municipal

council and role of its individual members, to ensure a more balanced membership and avoid predominance of powerful individuals, e.g., mayors (Kottak et al, 1994).

- Implementation of an enhanced *monitoring and evaluation* system to reinforce targeting mechanisms and to facilitate better control and project management throughout the subproject cycle.

Notes:

¹ World Bank (1995b).

² The states are Alagôas, Bahia, Ceará, Maranhão, Paraíba, Pernambuco, Piauí, Rio Grande do Norte, Sergipe and Minas Gerais, which is not part of the Northeast, but contiguous to it and includes a drought-prone area that belongs to the Northeast "drought polygon".

³ ARIDAS (1994).

⁴ The following two sections draw on material presented in Parker (forthcoming).

⁵ Ruttan (1984) gives a history of the post-war initiatives of RD.

⁶ Urban or semi-urban communities of less than 7,500 inhabitants were also eligible to receive loans under the program.

⁷ The UTs consist on average of 40 technicians and supervisors per state who are responsible for project implementation.

⁸ In a few exceptional cases, WB approval has been granted for subprojects costing more.

⁹ Minas Gerais was not included.

¹⁰ This methodology builds on statistical random sampling procedures from a universe of all subprojects under implementation and/or completed, as obtained from the SSMP. Due to the wide variation in project characteristics, the maximum acceptable difference between the sample estimated value and the true population value was set at 20 percent. The total number of subprojects selected for data collection following this procedure was 177. The WB's Recife Office identified specific subprojects by employing a random number generator. The distribution of the sample for a given type of subproject among the states was based on the distribution frequency of such projects. A questionnaire was designed for each type of project, focusing on: (i) subproject identification; (ii) nature of the subproject (investments funded); (iii) results and impact of the subproject; and (iv) special information (World Bank, 1995a).

¹¹ It is difficult to assess the sustainability of this trend as 1994 was an election year.

¹² However, some studies cited less political interference as an advantage of FUMAC. Political interference was only encountered in a minority of project Municipal Councils.

¹³ This compares to rates of return of between 8 and 13 percent for the earlier generation of Northeast RD programs, and the average for 192 worldwide RD projects of 10 percent (World Bank, 1987).

¹⁴ The variation between average costs per project type given in this section and those of Table 5 is explained by the smaller number and characteristics of the sample subprojects when compared with the total under the program.

¹⁵ Subproject proposal processing has not been a major limiting factor, considering that more than 15,000 subprojects have been approved in little more than a year.

¹⁶ This corresponds to Tendler's (1993) findings.

¹⁷ In the communities that were surveyed by Kottak and Costa (1994)—21 under FUMAC and 17 under PAC—17 percent of beneficiaries were landless producers and the majority had less than 10 hectares of land. In these areas, mostly productive sub-projects, e.g., small-scale cashew-nut processing, tractor supply, small livestock and fish farms, were implemented under the program but some rural water supply works were also undertaken. Compared to the previous year when most of the same families were interviewed, the availability of food and consumer goods had generally increased as a result of better climatic conditions. However, this increase had been much more substantial for families benefiting from PAC or FUMAC subprojects than others. In the former group, food production had risen by 68 percent and consumer goods by 14 percent, in large part from higher production and incomes; while the latter group had only 14 percent more food and 10 percent more consumer goods.

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Table 1: Disbursement Performance of NRD Project, by State
US\$ million
(as of February 15, 1995)

State	Original Loan Amount	Disbursement at Reformulation ¹	Cancellations ²	Actual Disbursement after Reformulation	Already Committed after Reformulation ³	Outstanding Balance ⁴
Sergipe	61.3	39.9	1.0	7.4	6.7	6.3
Rio Grande do Norte	61.4	36.1	10.0	2.7	3.9	8.7
Pernambuco	92.0	51.8	20.0	4.1	1.6	14.5
Bahia	171.0	59.4	60.0	28.2	9.5	13.9
Ceará	78.0	34.0	25.0	7.4	1.9	9.7
Piauí	122.0	45.1	30.0	5.8	4.3	36.8
Paraíba	60.0	24.0	0.0	5.1	2.7	28.2
Minas Gerais	55.0	14.1	0.0	2.4	2.7	35.8
Maranhão	84.0	25.0	0.0	7.0	2.3	49.7
Alagoas	42.0	12.6	0.0	1.5	1.3	26.6
Total	826.7	342.0	146.0	71.6	36.9	230.2

¹ Reformulation became effective on September 28, 1993.

² Cancellation became effective on December 21, 1994.

³ Figures do not include a large number of community subprojects for which the first installment has been made but which are awaiting transfer of more loan funds, nor subprojects already approved but which have yet to be implemented.

⁴ As of February 15, 1995.

Table 2: Number of Municipalities Reached by NRDp Projects
 (as of February 25, 1995)

State	Number of Municipalities ¹			Implemented/completed projects per municipality				
	In the State	In the Project Area	With implemented/completed projects			Total	PAC	FUMAC
			Total	PAC	FUMAC			
Sergipe	75	74	68	61	7	4.8	4.56	7.29
Rio Grande do Norte	159	158	56	50	6	5.3	5.32	4.67
Pernambuco	174	167	99	87	12	4.4	4.21	5.50
Bahia	415	264	252	234	18	12.2	11.56	21.06
Piauí	143	124	77	75	2	3.2	3.16	3.50
Ceará	178	120	100	89	11	5.0	4.75	7.09
Paraíba	171	109	71	61	10	3.2	2.57	7.10
Minas Gerais	50	50	54	40	14	4.1	4.38	3.43
Maranhão	136	135	98	88	10	4.9	4.39	9.50
Alagoas	97	57	23	18	5	3.5	3.94	2.00
Total	1,598	1,258	898	803	95	4.8	4.68	5.91

¹ The sum of the PAC and FUMAC municipalities may exceed the total number of municipalities in the project area because some original PAC municipalities later became FUMAC

Table 3: PAC/FUMAC Subprojects by State, at Various Stages of Processing
(as of February 25, 1995)

State	Number of subprojects			Subproject distribution according to stage of processing ¹						
	Total	PAC	FUMAC	0	1	2	3	4	5	6
Sergipe	430	370	60	0	9	88	3	1	173	156
Rio Grande do Norte	1,152	1,035	117	0	607	0	62	156	327	0
Pernambuco	1,894	1,682	212	1,094	184	172	12	0	250	182
Bahia	11,575	10,099	1,476	0	0	8,231	237	22	2,259	826
Piauí	1,385	1,329	56	1,001	0	0	0	140	49	195
Ceará	1,243	1,106	137	231	144	315	52	0	367	134
Paraíba	721	607	114	477	1	2	0	13	150	78
Minas Gerais	580	442	138	302	0	1	8	46	194	29
Maranhão	1,703	1,497	206	742	302	116	61	1	363	118
Alagoas	403	389	14	295	26	0	1	0	76	5
Total	21,086	18,556	2,530	4,142	1,273	8,925	436	379	4,208	1,723

¹ **Processing stages:**

0 = proposals received by UT waiting for appraisal

1 = proposals being appraised by UT

2 = proposals approved, negotiating with beneficiary associations/communities on terms of agreements to be signed

3 = rejected proposals

4 = proposals approved, agreements prepared, awaiting for loan funds

5 = proposals approved, funds released to associations, projects being implemented

6 = completed projects

Total demand = 0+1+2+3+4+5+6

**Table 4: NRD^P Community Demand:
Distribution of Subprojects Submitted by Type
(as of February 25, 1995)**

Type of Project	Total NRD^P (All states)
Infrastructure	55.2
Productive	41.9
Social	2.9
Total	100.0
Water supply	19.3
Rural electrification	17.6
Farm tractor	9.7
Manioc flour-mill	8.0
House improvement	3.5
Irrigation	2.6
Sanitation	2.3
Clothes-making	2.2
Bridges	2.1
Brick-making	2.1
Rice processing	1.5
Localized road rehabilitation	2.7
Maize processing	1.2
Child daycare centers	0.5
Cashew processing	0.5
Other	24.2
Total	100.0

Table 5: Average Cost of PAC/FUMAC Subprojects, by Type and by Individual State

STATE	Average Cost by Type ^{1,2} (US\$)										
	Type of Project:	Manioc Flour Mills	Farm Tractors	Water Supply	Rural Electrifi- cation	Small Dams	Tubewell	Rice Process- ing	House Improve- ment	Irrigation	Bridge
Sergipe	11,688	33,038	19,800	25,387	---	---	---	25,542	---	28,332	---
Rio Grande do Norte	20,489	35,752	15,991	19,605	25,145	---	---	---	29,371	---	19,841
Pernambuco	26,488	38,939	21,369	32,758	30,595	---	---	37,633	35,352	---	---
Bahia	10,705	---	17,286	22,995	12,012	10,697	12,377	20,509	19,837	18,888	20,537
Piauí	3,927	27,312	10,317	21,940	16,745	6,782	9,285	22,198	14,168	28,301	4,207
Ceará	14,796	38,576	20,760	32,412	28,321	12,946	29,043	---	30,504	---	28,278
Paraíba	11,190	39,648	10,307	16,584	---	2,932	2,147	---	14,033	---	7,843
Minas Gerais	29,570	35,862	---	30,947	7,326	4,619	---	---	16,892	37,110	---
Maranhão	10,277	35,925	17,824	30,145	24,142	21,042	11,004	39,083	22,113	15,265	15,633
Alagoas	16,176	27,751	---	33,608	---	---	---	16,439	---	---	---
Total	12,123	36,520	18,274	25,279	13,943	10,049	11,925	30,023	21,963	22,350	19,835
PAC	11,847	36,340	19,078	25,716	13,927	10,123	11,910	31,994	22,606	22,168	19,855
FUMAC	14,956	37,194	15,078	22,878	14,208	7,622	11,978	17,488	18,227	23,613	19,671

¹ Costs include beneficiary contributions.

² Nature and technical specification for the same type of project vary within and among states.

Table 6: Average Cost of Subprojects under Implementation and/or Completed

State	Number of Subprojects (Stages 5 & 6) ¹			Average Cost ² (US\$)	
	PAC	FUMAC	Total	PAC	FUMAC
Sergipe	278	51	329	27,328	24,157
Rio Grande do Norte	266	28	294	24,706	23,537
Pernambuco	147	21	168	34,517	36,064
Bahia	1,484	119	1,603	16,103	16,390
Piauí	237	7	244	14,647	12,312
Ceará	423	78	501	27,465	28,488
Paraíba	157	71	228	11,711	12,588
Minas Gerais	175	48	223	30,529	24,729
Maranhão	386	95	481	19,731	20,487
Alagoas	49	6	55	21,302	21,717
Total	3,602	524	4,126	21,714	21,838

¹ Projects under implementation and/or completed.

² Includes beneficiary contributions.

Table 7: Socio-economic Benefits of PAC/FUMAC Subprojects by Main Subproject Type

Project Type	Total No. of Subprojects being Implemented and/or Completed	Total No. of Beneficiaries	Cost per Beneficiary (US\$)	Total No. of Jobs Created	Total Net Incremental Income per Year (US\$ '000)	Net Incremental Income per Beneficiary per Year (US\$)	Total Incremental Crop Area (hectares)	Social Internal Rate of Return (%)	Cost Effectiveness	
									Total Investment per Job Created (US\$)	Social Benefit -Cost Ratio ¹
Infrastructure:										
Rural water supply	976	138,592	142	----	----	----	----	----	----	----
Rural electrification	758	36,331	400	640	----	----	----	----	31,563	----
Productive:										
Manioc mills	380	39,250	297	11,460	14,890	377	7,900	> 50	1,273	>3.0
Tractors for communal use	198	15,048	438	9,900	11,587	770	36,080	> 50	816	>3.0
Rice mills	62	2,932	234	398	968	330	1,220	> 50	2,895	>3.0
Clothes making	88	7,360	109	1,583	1,400	190	----	> 50	925	>3.0
Social:										
House improvement	116	8,236	461	----	----	----	----	----	----	----
Child daycare centers	29	2,639	290	----	605	229	----	> 50	----	>3.0

¹ Real discounting rate is 10 percent.

Table 8: Financial Sustainability Analysis of Productive Subprojects

Item/Project	Manioc Mill	Rice Mill	Farm Tractor
Number of associations	380	62	198
Average net income per association (US\$) ¹	3,737	2,131	6,631
Average cost of subproject (US\$)	20,200	11,000	33,000
<u>Average number of years:</u>			
Of useful economic life (years)	12	12	10
To build replacement fund (years) ²	5	5	5

¹ Total income from association fees and cost recovery net of all O&M and other recurrent costs.

² Number of years after which the association has accumulated enough funds to replace the original investment, which is considerably less than the useful economic life of the investment. The real interest rate is assumed to be 10 percent.

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