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WORKING PAPER 3

**Participation and sustainability in social projects;  
the experience of the Local Development Programme (PRODEL)  
in Nicaragua**

by  
Alfredo Stein

Human Settlements Programme  
IIED  
3 Endsleigh Street  
London WC1H 0DD

Tel: (44) 207 388 2117  
Fax (44) 207 388 2826  
E-Mail [urban@iied.org](mailto:urban@iied.org)  
Web: [www.iied.org](http://www.iied.org)

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# Participation and sustainability in social projects; The experience of the Local Development Programme (PRODEL) in Nicaragua

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## **IIED Working Paper 3 on Poverty Reduction in Urban Areas**

This is one of ten case studies that were part of an IIED research programme on “Urban Poverty Reduction Programmes: Lessons of Experience”. The research was undertaken with support from the UK Government’s Department for International Development/DFID (project number R6859) and from the Swiss Agency for Development and Cooperation (SDC). The publications that are the result of this work are listed at the end of this paper.

The ten case studies demonstrate the important roles that local institutions have (or can have) in contributing to poverty reduction in urban areas. They show that:

- many aspects of poverty need to be addressed, including not only inadequate livelihoods, income levels and asset bases but also poor quality and often insecure housing, inadequate infrastructure and services, inadequate legal protection of poorer groups’ rights and “voicelessness and powerlessness” within political systems and bureaucratic structures;
- there are often positive multiplier linkages as actions to reduce one aspect of poverty can help reduce other aspects;
- there are many possible entry points for reducing poverty (including some for which little or no external funding is needed) and many kinds of local organizations or institutions can contribute to this;
- the form of the local institution that can reduce poverty varies with context; they can be community organizations, federations of community organizations, local NGOs, local foundations, municipal authorities or, on occasion, national government agencies or local offices of international agencies;
- one of the critical determinants of the success of poverty reduction initiatives is the quality of the relationship between “the poor” and the organizations or agencies that have resources or powers that can help address one or more of the deprivations that poorer groups suffer; and
- sustained poverty reduction requires city and municipal government agencies and political structures that are more effective, more accountable and more able to work with low-income groups and their community organizations.

International agencies need to develop or expand funding channels to support local institutions that can deliver for low-income or otherwise disadvantaged groups (including the organizations, associations and federations formed by these groups as well as local NGOs and local government agencies) while also remaining accountable to them. This should also support the capacity of these institutions to widen the scale and scope of poverty reduction programmes and recognize the fact that much poverty reduction depends on new attitudes and actions by local government institutions.

## **ABOUT THE AUTHOR**

Alfredo Stein worked as Sida's consultant to PRODEL from 1994 to 1999. He assisted FUPROVI in Costa Rica to strengthen its housing revolving fund and with IIED-America Latina's *barrio*-support programme. He is currently working as Programme Officer at the Swedish Embassy in Honduras supervising local development and low-income housing reconstruction programmes established after Hurricane Mitch.

This paper is drawn from a longer, more detailed working paper by Alfredo Stein, published by IIED as one of ten case studies of innovative programmes to reduce urban poverty. This is available from the Human Settlements Programme, IIED, 3 Endsleigh Street, London WC1H 0DD, UK; see [www.iied.org](http://www.iied.org) for more details.

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Alfredo Stein can be contacted at [alfredo.stein@foreign.ministry.se](mailto:alfredo.stein@foreign.ministry.se)

## CONTENTS

Abbreviations

### SUMMARY

<b>I. INTRODUCTION</b> .....	1
<b>II. BACKGROUND</b> .....	2
<b>III. THE AREAS IN WHICH PRODEL OPERATES</b> .....	2
<b>IV. THE LOCAL DEVELOPMENT PROGRAMME (PRODEL)</b> .....	4
a. Objectives and Strategy .....	4
b. Main Actors .....	6
c. Achievements .....	8
<b>V. THE PRODEL COMMUNITY PARTICIPATION MODEL</b> .....	13
a. Infrastructure Component .....	13
b. Evaluation of the Participatory Process in the Infrastructure Component .....	16
c. Housing Improvement and Micro-enterprise Loans .....	22
d. Evaluation of Participation in Housing Improvement Loans .....	24
<b>VI. LESSONS LEARNED</b> .....	26
ANNEX 1: Functions, Objectives and Modalities of Community Participation in the Infrastructure and Community Works Projects, and in the Housing Improvement Loan Components of the Local Development Programme (PRODEL) .....	31
ANNEX 2: Comparison between Levels of Poverty in Cities served by PRODEL and Managua, Nicaragua, and Cities in El Salvador .....	37

### BOXES

1. Characteristics of PRODEL's Components .....	5
2. The Changes in Priorities arising from Micro-planning in Estelí .....	16
3. Municipal Learning with Regard to Participation .....	18
4. Comparative Analysis of Two Paving Projects carried out with and without Community Participation in the City of Leon in 1997 .....	20
5. Community Participation and Maintenance of Child Care Centres .....	22
6. Multiplier Linkages between Housing Improvements and Local Businesses .....	25

### TABLES

1. Urban Population, Number of Houses, and Households below the Poverty Line in the Eight Municipalities in which PRODEL has operated during Phase I and Phase II ..	3
2. The Number of Neighbourhoods served per City and Coverage of Basic Services in the Urban Areas of the Municipalities where PRODEL operated during Phase I (1994-1997)	

3. Number of infrastructure projects per city and contributions from PRODEL, the municipal governments and the communities (1994-1998) . . . . .	9
4. Number of Housing Improvement and Micro-enterprise Loans and Families Benefiting per City (1994-1998) . . . . .	10
5. Analysis of the Financial Sustainability of PRODEL's Revolving Funds in US\$(1995-1998) . . . . .	12

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**PUBLICATIONS - THE CASE STUDIES AND OTHER BOOKS  
AND PAPERS ON URBAN ISSUES**

a. The Working Papers series on poverty reduction . . . . .	38
b. Other publications from this research programme . . . . .	39
c. Other publications on urban poverty . . . . .	39
d. Urban publications with Earthscan . . . . .	40
e. Other Working Papers series . . . . .	40
f. Other IIED publications on urban issues . . . . .	41

**LIST OF ABBREVIATIONS**

<b>ATV</b>	Asistencia Técnica en Vivienda (Housing Technical Assistance)
<b>BCP</b>	Banco de Crédito Popular (Popular Credit Bank)
<b>BID</b>	Banco Interamericano de Desarrollo (Inter-American Development Bank)
<b>CPAC</b>	Community Project Administration Committee
<b>ENEL</b>	Empresa Nicaragüense de Electricidad (Nicaraguan Electric Company)
<b>FDL</b>	Fondo de Desarrollo Local – NITLAPAN (Local Development Fund Nitlapan)
<b>FISE</b>	Fondo de Inversión Social y Emergencia (Social Emergency Investment Fund)
<b>INAA</b>	Instituto Nicaragüense de Agua y Alcantarillado (Nicaraguan Water and Sewage Institute)
<b>INATEC</b>	Instituto Nacional Tecnológico (National Institute of Technology)
<b>INIFOM</b>	Instituto Nicaragüense de Fomento Municipal (Nicaraguan Institute for Municipal Development)
<b>MED</b>	Ministerio de Educación (Ministry of Education)
<b>MINSA</b>	Ministerio de Salud (Ministry of Health)
<b>PRODEL</b>	Programa de Desarrollo Local (Local Development Programme)
<b>Sida</b>	Swedish International Development Cooperation Agency
<b>SILAIS</b>	Servicios Integrales Locales de Atención en Salud (Integrated Local Health Services)
<b>UTE</b>	Unidad Técnica Ejecutora de la Alcaldía (Municipal Technical Unit)

## SUMMARY

### ***Introduction***

The Local Development Programme (PRODEL) in Nicaragua provides small grants for infrastructure and community works projects, and loans and technical assistance for micro-enterprises and for housing improvement. The Programme also helps to develop the capacity of local institutions to implement these. Its immediate goal is to improve the physical and socio-economic conditions of families living in poor communities. Between 1994 and 1997, it was active in five municipalities, and from 1998 it became active in three more. At the last census in 1995, these eight municipalities had 650,000 inhabitants and 32 per cent of Nicaragua's urban poor.

By the end of 1998, more than 38,000 families had benefited from the US\$ 10.5 million programme – 48 per cent of the total population of the eight towns. Just over half this funding was provided by the Swedish International Development Cooperation Agency (Sida) with the rest mobilized locally, mostly from the households taking part and the municipal authorities. Between 1994 and 1998, the infrastructure and community works component supported 260 projects (up to US\$ 50,000 per project) in 155 neighbourhoods with a total investment of US\$ 4.4 million. Among the works funded were piped water supplies, sewers and drains, treatment plants, roads and footpaths, electrification and street lighting, health centres and day care centres, playgrounds, sporting facilities, and sites for the collection, disposal and treatment of wastes. The communities contributed 132,000 days of work (volunteer and paid).

Housing improvement loans of US\$ 200-1,400 were provided to 4,168 households to enlarge and improve their homes, including funding for indoor plumbing, the construction of additional rooms, upgrading of kitchens and repair or replacement of roofs. Loans of US\$ 300-1,500 supported 2,400 enterprises (most of which had more than one loan). Both loan programmes were serving low-income households – for instance, 70 per cent of the households receiving housing improvement loans had monthly incomes of US\$ 200 or less. Both achieved good levels of cost recovery (and low default rates) despite the economic difficulties within Nicaragua. The funding recovered through loan repayments went to support new loans. More than 60 per cent of the housing improvement loans and 70 per cent of the micro-enterprise loans were taken out by women.

### ***Institutionalizing Development***

PRODEL's ultimate goal is to develop and institutionalize a participatory model for the provision of infrastructure and services and the support of housing improvement and micro-enterprise development that can be sustained in all urban areas of Nicaragua. Thus, it sought to increase the capacity of local institutions to work with low-income groups and their community organizations. The infrastructure and community works projects were developed and implemented jointly by community organizations and municipal agencies. These only received support if there was community participation in the identification, execution and maintenance of the work and a commitment of resources by the municipal council. For each project, micro-planning workshops allowed community representatives to work with municipal staff to develop draft proposals which were presented and discussed at general assemblies. These assemblies formed a Community Project Administrative Committee to review the design and planned use of resources and to manage the stocks of building materials, equipment and labour in the execution. This Committee also took part in periodic progress reviews and in the financial audit and physical inspection of projects. This helped to keep down costs – allowing more physical works to be done with the funds available.

PRODEL recognized from the outset the need to institutionalize the means by which the newly constructed infrastructure would be maintained. For the new water, sewer and electricity connections, maintenance can be funded from the service payments made by

the communities, who also contribute labour to the maintenance of schools, health facilities, recreational facilities and parks. PRODEL developed maintenance funds to which both municipalities and communities contribute.

The housing improvement and micro-finance loans were made available through an existing bank which had branches in all eight cities, with municipal agencies providing technical assistance for the households taking out housing improvement loans. NGO loan programmes were supported in neighbourhoods where the bank did not operate. Each housing loan is provided with technical advice on the works to be undertaken and their implementation.

### **Lessons Learned**

*Programmes such as these can improve the relationship between local governments and communities.* They are based on concrete alliances founded on tangible plans rather than community demands that are often unrealistic in terms of what municipal authorities can deliver.

*Limited resources go further and are used more efficiently when improvement programmes are developed through negotiations between communities and external agencies.* This means that they are more likely to reflect the priorities of the communities and the actual capacities of the municipal authorities (with communities coming to better understand the limitations of municipal agencies).

*There is a need to work with existing local institutions* since they are closest to the demands and the needs of users and can develop a participatory engagement with them. But the programme had to support them in developing new habits and procedures of control, reporting and joint responsibility in order to improve accountability and transparency. As Manuel Maldonado, Mayor of Somoto noted:

*“We previously had an erroneous idea of what community participation was. We knew that it was a key element with a great deal of economic and human potential for municipal development but in fact, we were not providing any space in which it could take place. We are now convinced that it is essential to have community participation in all possible processes and all stages of the project. This participation has facilitated the creation of coordinating committees and the identification of opportunities between the communities and the local government which has been beneficial to both sides. Involving the communities has given the ‘barrios’ greater confidence in the management and transparency of the funds by the municipal government. There is now improved communication and understanding between the members of the communities and the municipal government, and a higher level of satisfaction on the part of the population with the projects which have been carried out.”*

*It is possible to reduce the influence of political change on programmes such as these if clear rules are set regarding incentives and sanctions in the use of external resources that the funding agency channels through the recipient government.* There is a need to recognize from the outset the different interests of those involved and to ensure that these are met – for instance, the fact that the bank needed to charge commission as a means of meeting the costs of loan supervision, and the need for the municipality to get co-finance for maintenance.

*Programmes such as these must avoid creating unrealistic expectations among external agencies as to what community participation can do.* It is often difficult to get communities involved in design and preparation. Community enthusiasm for infrastructure and community works projects declines if there are delays in getting the projects approved and executed. It is difficult to get a good match between the time frames of communities, PRODEL and the municipal authorities. Community participation needs supporting – for instance, to provide families with new options, capacities and skills in identifying problems, project planning and financial management.

*There is a need for training and for the development of methodologies to make municipal technicians support participation.* Technical and financial officers of the municipal government

think that training and empowerment is something done by social workers; they do not become involved in transferring know-how to communities..

It is difficult for any agency to provide technical and financial advice to hundreds of households which are developing and implementing housing improvement plans simultaneously, especially when these households are scattered over a wide geographic area in a wide variety of site conditions. It is also difficult for any agency to administer a portfolio of thousands of small loans to these same households.



## **Participation and sustainability in social projects: the experience of the Local Development Programme (PRODEL) in Nicaragua**

Alfredo Stein

### **I. INTRODUCTION**

THIS PAPER ANALYZES the experience of community participation of PRODEL (the Local Development Programme) in Nicaragua during the period 1994-1998 in the provision of urban services, infrastructure, housing improvement and micro-enterprises lending, and the implications for the sustainability of social programmes.

The first section of the document describes the socio-economic conditions prevailing in the cities where PRODEL works. Then, it summarizes the objectives, strategy and rationale used to involve communities and end-users in the different phases of the components of the programme. The document evaluates the efficiency and effectiveness of community participation in the infrastructure, housing improvement and micro-enterprise lending components. Finally, it outlines some of the lessons learned in terms of sustainability and participation in social programmes.

This paper stresses how, in a relatively short period of time, PRODEL's model of community participation produced positive results in terms of improving the living conditions of poor families, increasing efficiency in the management of public resources, and in generating positive attitudes among the beneficiaries. More than 38,000 families benefited from infrastructure and community works projects, housing improvement loans and loans to micro-enterprises. For each US\$ 1 of external financing provided by Sida through a central government agency for infrastructure projects, US\$ 0.66 of local resources were mobilized, including contributions by the communities. In the housing improvement component, for each US\$ 1 provided as a loan, families mobilized at least an additional US\$ 0.30 of their own resources. Financial analysis shows that the break-even point in the operation of small loans has been reached, and this allows a profit of 15 per cent per annum after paying commission to the commercial bank that manages the revolving fund.

These figures show how a large quantity of resources and local internal savings can be mobilized for the construction, operation and maintenance of basic urban services, as well as for housing and income generation, in spite of the prevailing poverty conditions in these cities.

Experience also shows that technical solutions defined with the direct participation of the end-users can save money. Projects costing up to US\$ 50,000 and carried out by the programme with community participation may cost up to 20 per cent less than projects carried out by local governments, either directly or through contracts to private companies without community participation. The participatory model also brings many other benefits, as the paper describes.

Finally, the paper suggests that an effective process of participation requires an environment that does not impede the decentralization and devolution of functions, resources and decision-making authority from higher levels of government to the local level. The experience of PRODEL shows that the scarcity of state financial resources is not the principal obstacle encountered by poor groups in solving their problems. To the extent that the institutionalized systems make families participants in the processes of co-management, the possibility increases that these users will assume greater responsibility and commitment in the financing and management of the services. The process of community participation micro-planning and the administration of projects allows local governments to more effectively focus public investments in infrastructure, equipment and housing to where the poorest groups live, based on real, coordinated and negotiated demands.

### **II. BACKGROUND<sup>(1)</sup>**

NICARAGUAN SOCIETY EXPERIENCED major changes during the 1990s. From a

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<sup>1</sup> This section is based on PRODEL (1997), *Documento de proyecto para la segunda fase de PRODEL* (PRODEL Phase II project document), INIFOM, Managua.

situation of war and political polarization, progress was made in the process of national reconciliation and democratization. From a collapsed, centrally managed economy with record levels of hyper-inflation and the highest foreign debt in the region (700 per cent of its GDP), it was transformed into a market economy with incipient growth, relative financial stability and a significant reduction in the fiscal deficit.<sup>(2)</sup> This economic transformation required the adoption of a series of structural adjustment measures which had a negative impact on the poorest sectors of society. Unemployment and under-employment increased. Wages, which already had little purchasing power, were frozen and access to basic services and infrastructure was reduced.<sup>(3)</sup>

In this context, the governments of Sweden and Nicaragua signed a cooperation agreement in July 1993 for the implementation of the Local Development Programme (PRODEL). The two governments were interested in creating a decentralized, participatory and sustainable programme which would contribute to mitigating the negative impacts of structural adjustment policies, especially in urban areas, and facilitate the process of national reconciliation and democratization.

### III. THE AREAS IN WHICH PRODEL OPERATES

DURING THE FIRST phase (1994-1997), the programme operated in three mid-sized cities (León, Chinandega and Estelí) and two small cities (Somoto and Ocotal). These cities had experienced serious problems associated with rapid population growth as a result of internal displacements caused by the civil war and the return of refugees from neighbouring countries, increased levels of unemployment and under-employment, poverty and the lack of basic services and infrastructure. During the second phase (1998-2001), two new mid-sized cities (Matagalpa and Jinotega) and one small city (Chichigalpa) were incorporated.

According to the 1995 national census, the population of the eight municipalities was about 650,000. Approximately 451,000 lived in urban areas, which means that the level of urbanization was 69.4 per cent (ie. higher than the national average of 54.4 per cent). The total population of these municipalities represented 15 per cent of the total population of the country and 19 per cent of the total urban population in Nicaragua (see Table 1).

**Table 1. Urban Population, Number of Houses, and Households below the Poverty Line in the Eight Municipalities in which PRODEL operated during Phase I and Phase II**

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<sup>2</sup> Inflation was reduced from 30,000 per cent per annum in 1989 to 12 per cent in 1995. The GDP per capita was US\$ 418 in 1995 compared to US\$ 739 in 1979 and to US\$ 979 in 1970. Between 1990 and 1995, the government reduced the number of public employees from 284,800 to 95,600, including a reduction of 84,000 in the armed forces (Villalta, Luis (1997), *Proceso de modernización*, UCRECEP, Managua).

<sup>3</sup> According to the United Nations annual report on human development, Nicaragua is the second-poorest country in Latin America. In 1993, the rate of unemployment was 22 per cent. In 1996, the rate of total unemployment had decreased to 16 per cent but the rate of under-employment fluctuated between 35 and 55 per cent.

Municipality	Total population	Urban population	Rural population	Average inhabitants per urban household	Urban households per city	% of urban population below the poverty line	Urban poor, as defined by the poverty line	Urban households below the poverty line
León	161,530	123,865	37,665	5.76	21,906	16	19,818	3,441
Chinandega	117,037	97,387	19,650	5.76	16,935	37	36,033	6,256
Estelí	92,988	71,550	21,438	5.42	13,383	42	30,051	5,544
Somoto	28,821	14,218	14,603	5.95	2,546	83	11,801	1,983
Ocotal	26,076	25,264	812	5.58	4,549	68	17,179	3,068
Matagalpa	104,381	59,397	44,984	5.74	10,703	31	18,413	3,208
Jinotega	77,222	30,824	46,398	5.70	5,607	50	15,412	2,704
Chichigalpa	41,903	28,823	13,080	5.58	5,240	25	7,208	1,292
Total	649,958	451,328	198,630	5.69	80,869	35	155,915	27,496
Total Nicaragua	4357099	2,370,810	1,986,289	5.80	427,485	32	758,400	130,758
PRODEL cities as % of country total	15	19	10		19		25.5	21

SOURCE: Prepared by the author based on INEC (1997) "Censo Nacional de Población, 1995" [1995 National Census], Managua, and FISE (1996), "Metodología para determinar la línea de pobreza en Nicaragua" [Methodology used to determine the poverty line in Nicaragua], Managua.

Official statistics estimate that 32 per cent of the total urban population of the country (758,400 people) live below the poverty line. Of the total, approximately 25.5 per cent are in the eight cities where PRODEL works (see Table 1). In terms of unsatisfied basic needs, the five cities within the first phase, with the exception of León, are below the national average in terms of the availability of drinking water, sewerage provision, road repairs, electricity and waste collection services (see Table 2).

**Table 2. The Number of Neighbourhoods served per City and Coverage of Basic Services in the Urban Areas of the Municipalities where PRODEL operated during Phase I (1994-1997)**

City	Number of communities	Communities served by PRODEL	% communities served	% average coverage of basic services per city				
				Potable water	Sewers	Streets	Electricity	Garbage collection
León	126	30	24%	90	60	70	85	75
Chinandega	52	32	62%	74	38	75	75	51
Estelí	54	30	56%	78	35	15	75	55
Somoto	22	12	55%	72	43	60	85	30
Ocotal	18	9	50%	80	10	45	78	65
Total	272	113	42%					
Average coverage in urban areas at the national level including Managua				90	44	37	93	78

SOURCE: PRODEL (1997) "Proyecto de la segunda fase" and reports from the municipalities served by PRODEL; also the Social Action Ministry (1995) "Medición de la pobreza en Nicaragua"

[Measurement of Poverty in Nicaragua], MAS/UNDP, Managua.

Of the 150 neighbourhoods served by PRODEL during the first phase, 27 in León had more than two basic requirements unsatisfied, 25 in Chinandega, 17 in Estelí, eight in Somoto, and ten in Ocotal (see Table 2). According to different methods for measuring poverty (see Annex 2), 73 per cent of the population of León and Chinandega consists of chronically and recent poor; in Ocotal, Somoto and Estelí, the figure is 77 per cent. This compared with Managua, where the figure is 55 per cent, and to Nicaragua as a whole, where it is 66 per cent. These figures indicate that the area in which PRODEL operates possesses higher rates of chronic and recent poor than the national average. When compared with the 33 per cent figure in El Salvador, the level of poverty in the cities of Nicaragua, and those served by the programme, becomes evident (see Annex 2).

The poverty indicators highlight the type of urban population that PRODEL is working with:

- large segments of population with unsatisfied basic services and incomes below the cost of the basic food basket;
- many households with income levels above the cost of the basic food basket but living in neighbourhoods which lack one or more basic services;
- households in inner-city areas where all the services may be available but with income levels below the cost of the basic food basket.

Some of these neighbourhoods have a mixed population consisting of professionals with higher levels of education living next to unskilled labourers, self-employed workers and families employed in the informal economy.

The absence of adequate housing policies and programmes aimed at these sectors means that the majority of housing has been constructed by the population on its own initiative. Most of the housing does not meet minimum standards with regard to health, safety and environmental quality. These municipalities were also particularly affected during Hurricane Mitch at the end of October 1998. About 10 per cent of the housing stock in the eight cities was partially damaged or destroyed. Most was located in poor neighbourhoods that lacked basic services. About 3 per cent of the micro-enterprises also located in these areas had severe losses. It is in this socio-economic context that the community participation processes promoted by PRODEL must be understood.

#### IV. THE LOCAL DEVELOPMENT PROGRAMME (PRODEL)

##### a. Objectives and Strategy

SINCE IT BEGAN operations in April 1994, the development objective of the programme has been to improve the physical environment and the socio-economic conditions of the poor population, especially of women and other vulnerable groups, in the cities where it operates, through methods that can be sustainable over time. To achieve these goals, three investment components and a technical assistance and institutional development component have been structured (see Box 1 for a summary of the principal characteristics of the investment components of PRODEL). These are:

- **infrastructure and community works** which included the introduction, expansion, repair and improvement of infrastructure and community works through small-scale projects costing up to US\$ 50,000. These include potable water, sewers and storm drains; treatment plants; pedestrian and vehicular road systems including sidewalks, roads, gutters and pedestrian by-passes; public and household electrification; health centres, day-care centres, multi-use centres, school rooms, playgrounds and sporting facilities; and sites for the collection, disposal and treatment of waste;
- **housing improvement:** small loans (between US\$ 200 and US\$ 1,400) targeted at poor families who can afford to repay their loans. Loans are used to enlarge and improve houses including: the construction of additional rooms; repair and replacement of roofs; repair and reinforcement of outdoor walls; the construction and/or improvement

- of floors and interior walls; the installation of indoor plumbing and sewage facilities; electrification; and upgrading kitchens;
- **financial assistance to micro-enterprises** in the neighbourhoods in the form of small short-term loans (between US\$ 300 and US\$ 1,500) for fixed and working capital, as well as for the creation of new micro-enterprises for services, trade and manufacturing. These loans are directed in particular at micro-enterprises owned and operated by women;
  - **technical assistance and institutional development** to strengthen the capacities of local governments in the administration and management of social investments with community participation, as well as encouraging institutionalized financial entities to become involved in non-conventional lending programmes for housing improvement and micro-enterprise loans to poor families.

### Box 1. Characteristics of PRODEL's Components

Component	Infrastructure	Housing	Micro-enterprises
Objective	Improve, expand and maintain basic services and social equipment at the community level	Improve the habitat conditions of individual families	Income and employment generation in family-owned micro-enterprises, especially headed by women
Seeks	To promote community participation and strengthen local governments	To demonstrate the potential for the generation of participatory lending and housing improvement programmes in the country	Financial sustainability of the fund based on loans outside the traditional areas of activity of banks and other non-conventional lenders
How does it work	Local government with community participation defines, co-administers, executes and maintains the projects	A commercial bank screens, selects and issues loans and recovers them from individual families; technical assistance provided by local government; technicians; in 1999 two NGOs were incorporated in a similar scheme	Commercial bank and individual families; in some cases, technical assistance for the creation of new micro-enterprises; in 1999 two NGOs were incorporated in a similar scheme
Financial basis	Costs shared between the programme, the local government and the community	The families repay the loans; the Bank is paid a fee from the positive collected interest rates; NGOs also operate in a similar arrangement	Loans repaid to the Bank by micro-enterprises, based on positive and market collected interest rates; the NGOs also operate with a similar arrangement
Type of fund	Conditional and participatory fund with an element of subsidy	Rotating fund with long-term turnover (four years per loan)	Rotating fund with high turnover, high interest rates and short repayment periods (six months)
Target population and users	Families of the neighbourhood where the project is to be carried out	Neighbourhood families, based on ability to pay (monthly family income US\$ 60-500)	Micro-enterprises, the majority of them established, with monthly family incomes between US\$ 60-500
Administrative responsibility	Local government is responsible and accountable to PRODEL for the funds provided	Local government (technical assistance), the commercial bank and two NGOs (financial aspects)	Commercial bank and two NGOs (financing activity)

Component	Infrastructure	Housing	Micro-enterprises
Implications for local development	Solutions are prioritized and negotiated between the communities and local governments	End-user families define solutions with technical assistance from local government; the loans are given directly by the Bank and the NGOs to the families; high mobilization of family resources	Local governments establish areas of action but the Bank, NGOs and the users of the loans establish their relationship without the intervention of local government; the result is a strengthening of the local economy
Role of central government	To facilitate, promote and establish standards and procedures, strengthen local government, supervise and monitor the execution of the project, and learn lessons that can be applied in future programmes	To facilitate, establish procedures, strengthen the capability of local governments, a commercial bank and NGOs in participatory programmes, supervise, and learn lessons that can be applied in other programmes and cities	To facilitate the processes, stimulate the participation of financial intermediaries, supervise the process and make it possible to repeat the process on a larger scale
Requirements for success	Forum for the decentralization of responsibilities, functions and resources from the central government to the local government and to the communities	Clear division of functions between the financial entities and those that are providing technical assistance	Administrative ability of the financing intermediary to work with small, short-term loans
Sites of greatest impact	Poor and peripheral areas of small and medium-sized cities	Poor and peripheral areas of small and medium-sized cities	Poor and peripheral areas of small and medium-sized cities

SOURCE: Prepared by the author on the basis of progress reports from PRODEL (1997) and Project Documents for the Execution of Phase I (1994) and Phase II (1997).

## b. Main Actors

PRODEL bases its implementation on the formation of broad but clearly defined cooperative alliances between the various institutions involved. The system of incentives and co-financing supports the participation of all actors at the local level in management, contribution of resources and decision-making. The purpose of the combination of activities is to enable flexible responses to the urgent basic social problems in the neighbourhoods and, at the same time, to stimulate longer-term development processes. In this sense, PRODEL supports the decentralization process by means of promoting citizen participation, assisting local governments, and creating a financial and institutional framework that is sustainable over the long term. The principal entities involved in these processes are:

- **the Instituto Nicaragüense de Fomento Municipal (INIFOM – Nicaraguan Municipal Development Institute)**, a central government institution that administers the funds provided by the Swedish International Development Cooperation Agency (Sida) and which is responsible for the execution and supervision of the programme. INIFOM has formed a central executive unit to promote and coordinate actions at a central and local

level.<sup>4</sup> INIFOM's primary interest in the programme has been the possibility of establishing innovative methods to promote and enhance local government capacities through decentralized processes. The PRODEL participation model has been used by INIFOM to promote additional decentralization programmes using resources from other international funding agencies;

- **the municipal governments in the cities where the programme operates:** local authorities are responsible for administering the infrastructure component and providing technical assistance to the households with housing improvement loans. The municipal governments are responsible for administering the funds that PRODEL transfers to them and for supervising activities at the local level. These are coordinated by a municipal commission formed by representatives of the various institutions participating in the programme and are chaired by the mayor. Each city has created an executive technical unit made up of personnel from the municipal government (a technical person, a social promoter, two technical experts in housing construction and one administrative/financial specialist). A framework agreement is signed between INIFOM and the municipal governments for the implementation of the programme;
- **the consultative council:** the eight mayors, together with the Executive Director of INIFOM and one representative from the funding agency Sida, form a consultative council responsible for defining the strategic guidelines and for supervising the implementation of the programme, as well as complying with the cooperation agreement between Sweden and Nicaragua. In addition to its interest in improving the living conditions of the population in their respective municipalities, the experience of managing, investing and administering the funds for the infrastructure and community projects has given the municipal governments a greater sense of involvement in the process of providing services;
- **Banco de Crédito Popular:** this state commercial bank is responsible for screening, approving and disbursing the loans and supervising their correct utilization. The bank is also responsible for the collection of payments for the home improvement and micro-enterprise loans and for administrative, pre-judicial and judicial arrangements for foreclosure of collateral security and guarantees. INIFOM and the Bank have signed a trust fund agreement for the administration of the revolving funds. The Bank offers the programme additional banking services for the administration of the infrastructure components and technical assistance. The Bank derives various benefits from its participation in this programme. The commissions it earns for placing and servicing the loans represent a significant additional revenue which helps to meet its operating costs. The micro-enterprise loans also include a mandatory savings component in an account at the Bank, which has increased the Bank's liquidity for the promotion of its own loan programmes. Finally, its awareness of a new segment of the market has provided it with increased opportunities for new business;
- **NGOs:** PRODEL is interested in expanding the use of new financial intermediaries as a way of creating more competition in non-conventional lending in the cities where it operates. In November 1998, the programme decided to expand the use of non-conventional financial intermediaries to allocate loans to those poor sectors of the cities where it operates that were severely affected by Hurricane Mitch. Two NGOs, ACODEP and Nitlapán-FDL, were selected after a tender and bidding process to handle loans for housing improvements and micro-enterprises. The NGOs are interested in diversifying their portfolio. Both are recognized as having among the best performances for NGOs working with micro-enterprises. In early 1999, they started operations in the eight cities, mainly in neighbourhoods where the Bank is still not operating. No figures for the

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<sup>4</sup> The central executive unit consists of a national coordinator, an infrastructure coordinator, a housing and micro-enterprise coordinator and four people responsible for coordinating activities in the municipalities where the programme operates.

number of loans given by NGOs were available for this report since their incorporation to the programme is relatively new;

- **the families in the selected neighbourhoods** participate in the definition, execution, financing and maintenance of the infrastructure projects; they are also the recipients of the housing and micro-enterprise loans. The principal benefits they derive from their participation in the programme is the improvement in their living conditions and the acquisition of new skills in negotiating with public and private sectors to identify solutions to their problems. The families participate either directly or via community project committees – entities established for the organization and internal representation of the neighbourhoods – which are responsible for the administration, execution and maintenance of the infrastructure and community projects. Community meetings elect the commissions, and their representatives are members of the municipal commission which the municipal government establishes for the coordination and supervision of the components of PRODEL.

### c. Achievements

The achievements and limitations of PRODEL's participatory model must be understood in the context of a society which for years was politically polarized and which only took its first steps towards national reconciliation and reconstruction in the early 1990s. In addition to the economic and social crises, PRODEL also had to face changes in local and central governments. In January 1997, there was a 90 per cent turnover of personnel in the institutions directly involved in the administration and execution of the components, including the PRODEL management. The following section analyzes the achievements of each of the programme's components.

**Infrastructure and community projects component.** Between April 1994 and December 1998, 260 infrastructure and community projects were carried out in 155 different neighbourhoods, benefitting more than 38,000 families. Total investment was US\$ 4.4 million (an average of US\$ 16,972 per project). Contributions from municipal governments and the beneficiary communities (in kind, cash, materials, tools, labour, administration and supervision) totalled 43.1 per cent, with the other 56.9 per cent coming from the programme (see Table 3).

Thirty-five per cent of the projects consisted of improvements to roads, gutters and sidewalks; 10 per cent related to the improvement and expansion of potable water and sewage systems; 14 per cent to rainwater and storm water drainage projects. Another 18 per cent related to electrification (public lighting and/or household connections) and 23 per cent to community infrastructure (including construction, improvement, expansion and repair of primary schools, day care centres, health centres, parks and playgrounds).

In these 260 projects, the communities contributed some 132,000 days of work, both volunteered and paid, using their own resources. Because PRODEL concentrated the infrastructure component in the poorest neighbourhoods in the five cities, it can be assumed that the majority of poor people benefitting belong to groups classified as chronically poor and/or recently poor (see Annex 2).

The programme accomplished 184 per cent of the planned physical objectives of the infrastructure component. The reasons for this success are closely linked to the notion of community participation. Initially, the project document for the first phase established an objective of 64 projects to be completed in three years at an average cost of US\$ 20,000 to be financed by PRODEL. As a result of the requirement for local matching funds, a situation resulted in which the municipal governments decided to expand the coverage of the programme to more neighbourhoods to increase their impact, reduce the contribution on a per-project basis, and increase the level of community investment. The result was a greater number of lower-cost projects that mobilized a greater number of people and resources in each community, and required less in the way of funds per project from the central and municipal governments.



**Table 3. Number of Infrastructure Projects per City and Contributions from PRODEL, the Municipal Governments and the Communities (1994-1998)**

City	Projects planned (a)	Projects executed	% execution	Programmed contributions (US\$) (a)	PRODEL's contributions US\$	% execution	Municipal contributions US\$
León	28	49	175%	584,127	507,436	86.9%	305,9
Chinandega	39	72	185%	608,127	605,296	99.5%	423,3
Estelí	31	49	158%	592,127	537,574	90.8%	285,3
Somoto	19	36	189%	336,064	320,829	95.5%	128,3
Ocotal	8	39	486%	344,064	362,678	105.2%	160,9
Chichigalpa	5	5	100%	60,000	59,894	99.8%	31,0
Matagalpa	5	5	100%	70,000	48,849	69.8%	40,3
Jinotega	6	5	83%	70,000	67,325	96.2%	47,2
Total	141	260	184%	2,664,509	2,509,881	94.2%	1,422,7
Contributions (%)					56.9%		32.3

Notes: (a) The PRODEL First Phase Project Document had as its objective 64 projects to be carried out in three years in five cities. The programme was extended for an additional year, thus 46 projects were added, and the amount budgeted was US\$ 2.16 million. Three more municipalities were added in 1998, thus the amount budgeted for the eight municipalities for five years totals US\$ 2.66 million.

SOURCE: Based on PRODEL (1997) Final Year Report, mimeo, Managua; and PRODEL (1998) Final Year Report, mimeo Managua.

**Table 4. Number of Housing Improvement and Micro-enterprise Loans and Families Benefitting per City (1994-1998)**

City	Number of loans progs.	Total housing improvement loans	Disbursed amount in US\$ (a)	Average contribution by families US\$	Outstanding portfolio in US\$	Budgeted micro-enterprise loans	Total micro-enterprise loans given (b)	Mic enterpr own benef
León	1,112	944	613,265	138,255	200,344	2,777	2,824	
Chinandega	1,088	930	600,958	102,162	260,272	2,588	3,264	
Estelí	1,120	1,029	659,734	112,155	257,065	2,500	3,532	
Somoto	574	497	310,161	52,727	132,559	1,061	1,218	
Ocotal	715	574	376,025	63,943	143,767	1,441	1,398	
Chichigalpa	140	63	43,634	7,417	34,938	106	45	
Matagalpa	120	64	47,777	8,122	41,824	95	73	
Jinotega	120	67	56,896	9,672	47,016	95	97	
Total	4,989	4,168	2,708,450	494,453	1,117,785	10,663	12,451	

Notes: (a) Estimated average loan of US\$ 650.

(b) It was calculated that 25 per cent of the urban households have micro-enterprise as their only source of income, which would mean that there are approximately 13,000 micro-enterprises in the five cities in which PRODEL operated during the first phase. Therefore, PRODEL has reached approximately 18.5 per cent of the total number of micro-enterprises in the five cities. For the second phase, in the other three cities, it is too early to establish the overall impact.

SOURCE: PRODEL (1997), Programme Progress Report, mimeo, Managua; also PRODEL (1999), Evaluacion 1999, mimeo, Managua.

In addition, the responsibility displayed by families in the repayment of their house improvement and micro-enterprise loans made it possible to refinance new loans and it was thus unnecessary to use fresh funds destined for these components by PRODEL. Originally, during the first phase of the programme, US\$ 1.1 million had been budgeted for financing the housing improvement loans and US\$ 1.2 million for the micro-enterprise loans but only 50 per cent of these amounts was used. It consequently became possible to reallocate the unused loans funds to the financing of 57 new infrastructure projects during 1997, as a result of which the planned objectives for this component during the four-year period in question increased to 110 projects. Even so, a total of 217 infrastructure and community work projects were carried out in the first phase and another 43 in the first year of the second phase, a total of 260 projects.

**Housing improvement and micro-enterprise loan components.** In five years, more than 4,168 loans were given for housing improvements (total disbursed funds reached US\$ 2.7 million) which benefited approximately the same number of families.<sup>(5)</sup> In this component, the families, in addition to repaying their loans, contributed with their own resources, construction materials, labour, transportation and project administration to a minimum amount equivalent to at least 15 per cent of the value of the labour, transport and building materials (see Table 4).

According to the Bank's figures, about 22 per cent of the loan user families have monthly family incomes between US\$ 50 and US\$ 100; 48 per cent between US\$ 101 and US\$ 200; 26 per cent between US\$ 201 and US\$ 300; and 4 per cent between US\$ 301 and US\$ 450. Thus, 70 per cent of the families that received loans have monthly incomes of US\$ 200 or less. This indicates a sector of the population which can afford to make monthly payments but which is poor and has unsatisfied basic needs at the level of services and quality of housing construction materials. This is the segment of the population at which the component was aimed.

More than 12,451 loans for micro-entrepreneurs were provided in the communities in which the programme operated, with almost US\$ 5.5 million being disbursed and benefitting approximately 2,400 existing families (see Table 4). Seventy new micro-enterprises were also created, which gave jobs to some 210 people. In this component too, the final results exceeded the initial targets.

More than 60 per cent of the housing improvement loan recipients and 70 per cent of the micro-entrepreneurs are women. Approximately 30 per cent are women-headed households. One reason for this high participation by women is the approach that PRODEL developed with the Bank. Information meetings, credit analysis and loan collection are undertaken in the communities where women live and work. The same has been achieved in the technical assistance provided for the design and budgeting of the housing improvement loans, hence the size and form of loans sought to address the needs and priorities of women.

With more than 6,500 borrowers, the default indicators of the housing improvement and micro-enterprise revolving loan funds make PRODEL one of the most successful programmes in the country. Current levels of cost recovery show that there is a real possibility that the funds will become financially sustainable. In spite of two critical factors that affected the programme during 1998,<sup>(6)</sup> the default risk or portfolio at risk rate was about 18 per cent in the housing improvement loan component and 10 per cent in the micro-enterprise component.<sup>(7)</sup> An external evaluation of PRODEL's housing and micro-enterprise loans at the end of 1998

<sup>5</sup> Housing loans were first given in October 1994. Since the loan repayment period is four years, only about 5 per cent of the beneficiary families have taken a second loan for housing improvement. Thus it is possible to state that about 4,000 different families have received a loan for housing improvement.

<sup>6</sup> The first factor relates to the process of privatization for the Banco de Crédito Popular which forced the Bank to make some internal administrative readjustments. This affected Bank personnel directly linked with PRODEL's operation. The second factor is the social and economic consequences of Hurricane Mitch which seriously affected the eight cities where PRODEL works, including some of the clients who work with the programme's loans.

<sup>7</sup> The method that the Bank and PRODEL agreed for measuring the default rate is as follows: the total of the outstanding capital of those loans that are in arrears divided by the total outstanding capital of the whole portfolio. A loan is considered to be in arrears the day after payment is due but not complied with.

showed that only 1.5 per cent of total loans had more than three payments in arrears or had the portfolio at risk which may be lost and never recovered. About 2.5 per cent have to be recovered through judicial procedures and 96 per cent through simple administrative and follow-up procedures that the Bank needs to implement.

**Table 5. Analysis of the Financial Sustainability of PRODEL's Revolving Funds in US\$ (1995-1998)**

	1995	1996	1997	1998	Total
1. Seed capital*					
2. Seed capital micro-enterprise	414986	0	87,000	75,084	577070
3. Seed capital housing	547,767	76,044	150,000	142,780	916591
4. Total seed capital (2+3)	962,753	76,044	237,000	217,864	1493661
5. Operative income**					
6. Perceived interests micro-enterprise	82,289	122,813	197,709	253,977	656788
7. Perceived interests housing	65,252	69,134	101,761	128,530	364677
8. Total interests (6+7)	147,541	191,947	299,470	382,507	1021465
9. Direct costs of bank	102,448	134,598	183,004	245,591	665641
10. Financial margin (8-9)	45,093	57,349	116,466	136,916	355824
11. Provision for non-recoverable loans	17,322	23,054	36,480	43,268	120124
12. Operative profit (10-11)	27,771	34,295	112,818	93,648	235700
13. Indirect costs PRODEL	25,000	30,000	35,000	40,000	98000
14. Total costs (9+11+13)	144,770	187,652	254,484	328,859	915765
15. Sustainability indicator (8/13)	1.02	1.02	1.18	1.16	1.12

\* Refers to the fresh funds from Sida transferred by PRODEL to the Bank each year for the housing and micro-entrepreneur revolving funds. For 1994 there are no data available.

\*\* Refers only to the accumulated real interests obtained as a result of monthly collections

SOURCE: Analysis based on PRODEL (1999), "Evaluation 1998 and Operative Plan 1999", Managua, March 1999.

After five years of operation, the funds in the revolving fund, recovered through interest payments, can cover the Bank's direct costs and a good part of the costs of PRODEL personnel who are directly involved in monitoring the loan components. In 1998, accumulated interest recovered from loan portfolio totalled US\$ 382,507 and annual payments to the Bank for the administration of the portfolio totalled US\$ 251,386. A provision for those loans that are not recoverable totalled US\$ 43,268. Thus, the sustainability indicator measured as income generated by the portfolio divided by the commission paid to the Bank and provision for unrecoverable loans equalled 1.16. This means that the revolving fund was able to generate a surplus of 16 per cent in 1998. Over four years, the overall profit is 12 per cent (see Table 5).

This success is particularly noteworthy in light of the economic crisis currently experienced by Nicaragua, which includes high levels of unemployment and a lack of experience with credit, as a result of the historical circumstances that have prevailed. It also shows the importance and priority that poor sectors give to the repayment of their debts.

The results also show that this is not simply an isolated project but a pilot experience with lessons to be learned, so that the programme can be replicated in other cities in Nicaragua (and elsewhere). As such, the government of Nicaragua and Sida decided to continue financing

the activities of the programme for a second phase in the cities where it had been operating and to expand the programme to three additional cities. Some of the lessons from the PRODEL model have also started to be applied in Honduras and South Africa. *The ultimate goal is to institutionalize and define a participatory model for the provision of services, infrastructure, housing and income generation which will be sustainable at a national level.*

## V. THE PRODEL COMMUNITY PARTICIPATION MODEL

THE PRODEL COMMUNITY participation model is based on the premise that families who participate in decision-making processes and the administration and execution of infrastructure and housing improvements increase their commitment to co-finance and maintain the projects. This ensures the sustainability of the social investments over the long term. This section describes and analyzes the process of participation in the infrastructure, housing improvement and micro-finance components (see Annex 1 for a summary of the model and its evaluation).

### a. Infrastructure Component

INIFOM signs a framework agreement with the municipal governments defining the incentives, responsibilities and contributions of each party to the execution of the different components. INIFOM is responsible for the transfer of funds to the municipal governments under certain conditions. First, there must be community participation in the identification, execution and maintenance of projects. Second, there must be a commitment from the municipal council to allocate resources to the infrastructure projects. Third, municipalities must provide technical assistance to those families who are entitled to a housing improvement loan and, finally, they need to form an executing technical unit to manage the projects.

At the initiative of the municipal council, under the leadership of the mayor, a municipal commission is formed with representatives from the main entities involved in the programme (INIFOM, the municipal government, Banco de Crédito Popular and other public service institutions). Every year, based on a set of eligible criteria established by PRODEL, the municipal commission defines and selects the programme's action areas in the city.<sup>(8)</sup> The commission also provides follow-up on the physical and financial progress of the operative plan for each component.

Representatives from the selected communities are invited to the monthly meetings of this municipal commission, although their functions are limited. The idea is that community leaders should be given the opportunity to participate in the discussion and decision-making processes at the level of the municipality and be aware of how the areas of action are defined and selected.

Once it has been decided to include a community as a potential participant in the programme, the municipal government holds a micro-planning workshop with the participation of at least 20 members of the community (the majority being women). Usually, the existing community organization coordinates and makes arrangements for the workshop (finding a location, sending invitations and arranging refreshments). During the micro-planning exercise, the participants (the 20 community members, the technicians from the municipal government and from other government institutions) visit the community in small groups to talk with the neighbours and to acquire *in situ* a series of impressions about the concerns of the community. Special emphasis is placed on interviews with women and children. Then a group exercise is conducted to identify and prioritize the community's main problems. Priorities are assigned, the proposed solutions are discussed and negotiated, and the potential project to be financed by PRODEL is identified. Clean-up actions are also planned, in particular, trash collection. At the end of the workshop, the representatives from the municipal government and the community

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<sup>8</sup> Those communities with the highest levels of poverty, the lowest levels of basic services and social infrastructure and with good community organization are usually selected.

organization sign an agreement, with the principal results of the micro-planning exercise.<sup>9)</sup>

In Estelí, Ocotal and Somoto, the micro-planning methodology to identify social investment projects has been extended to projects being carried out by the municipal government with other sources of financing, including its own resources. Most of the social investment projects in these cities are currently being identified in this manner and presented for ratification in the annual public meetings of the city council, as stipulated by municipal law. This practice is becoming more common in the other municipalities where PRODEL operates and is also being adopted by other funding institutions. In the aftermath of Hurricane Mitch, in December 1998, the micro-planning methodology was used in the majority of the eight cities as a means of identifying the type of reconstruction projects that local governments and communities had to develop.

A general assembly of the community is then organized to which a report on the results of the workshop is presented. Technical personnel from the local government also present advances in the design of the project. They explain the procedure for implementing the projects and define the contributions to this by both the municipal government and the community. Decisions are made regarding community contributions to the various activities described in the budget. This information must be annexed to the project profile presented by the municipality to PRODEL for approval.

In 1996, micro-planning workshops in Somoto identified and prioritized annual floods as the problem which had the greatest impact on the city's peripheral and central communities. This exercise forced the local authorities to use PRODEL's resources, municipal funds and funds from other sources to plan a series of projects located not only in the neighbourhoods in which the programme was active but also in other locations where work was necessary to solve the problem. People living in the affected communities worked on the construction of a dyke and a long storm water system located several kilometres outside the area in which the programme was active, since this was needed to prevent the sewers from overflowing. The experience demonstrated to the municipal government the potential of community investments if communities are given the opportunity to participate and negotiate solutions with the local government. During Hurricane Mitch in November 1998, several of these infrastructure works were critical assets which prevented major landslides and flooding in the city.

In the general assembly, a formal structure consisting of seven people from the community is elected (the Community Project Administration Committee – CPAC). The specific functions of this committee are to review the budget and the design prepared by the municipal technicians, in particular the general characteristics regarding the location and dimensions of the project. CPAC also coordinates the management of the project and administers the stocks of materials, equipment and labour supplied both by the municipal government and the community. The committee reports back to the community on progress and on the use of the funds. Finally, they participate in the financial and physical audit of the project which is conducted by the municipal government and PRODEL. This committee is also required to participate in the annual evaluations of the component performed by the municipal commission.

CPAC organizes the rest of the community in the physical execution of the project. Depending on the type and complexity of the project, the municipal government makes an initial proposal for the organization, which can be done by block or by house. The municipal government's social services office trains the committee in the management and administration of the building materials warehouse and the methods used to manage the human resources employed in the project. The committee and the municipal technicians select the area where the materials will be stored. When the contribution is monetary, they initiate the collection within the community.

Once the project has been approved, PRODEL signs a specific contract with the municipal government and disburses the funds to a special account to allow project execution. This contract clearly stipulates the contributions by the parties for each of the construction

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<sup>9</sup> PRODEL has adapted the micro-planning method developed by Goethert, R, N Hamdi, et al. (1992), "La microplanificación. Un proceso de programación y desarrollo con base en la comunidad" (Micro-planning. A community-based planning and development process), IDE of the World Bank, FICONG, Washington DC to the Nicaraguan context.

activities. PRODEL pays up to 60 per cent of the total project costs. The rest comes from local contributions (in the form of investments in materials, skilled and unskilled labour, machinery and tools, administration and cash) from the community and from the municipal government, and may generally not be less than 40 per cent of the total project costs. PRODEL will not finance the project unless the community is prepared to make its own contribution. When the project starts, the CPAC manages the warehouse, the materials, tools and equipment, and the community's labour contributions. The community contributes to project execution in the form of skilled and unskilled labour, depending on the type of project, either as volunteer labour or as contract labour hired by the community.

The general procedure by which the community participates in project execution depends on whether the infrastructure being built is for public or private use. In the installation of on-site infrastructure, each family participates individually. In the improvement of schools, skilled labour is hired. In the construction of sewage systems, each family excavates the section in front of their house. When gutters are built, teams are formed which work weekly. Combined teams carry out projects which involve the construction of a sewage system, the excavations and installing manholes.

The CPAC and other community members work with technical staff from the municipal government and employees of PRODEL in auditing the project. They prepare an inventory of the existing materials and tools at the warehouse (entries and withdrawals), comparing them with the purchase vouchers from the municipal government. They also keep track of the total amount of labour provided. The purpose of this activity is to increase social control over the utilization of the funds and to establish a routine and more direct procedure for the municipal government to report directly to their constituency.

Members of the CPAC and other community members also take part in project evaluations carried out by the municipal commission. These evaluations analyze the experience, the level of organization and community participation achieved as well as the quality of the completed project. This process can also be used to identify other requirements relating to the project, to resell any surplus materials and to transfer any surplus funds to the municipal accounts for use in other projects. In some of the cities, the organizational experience that was acquired facilitated the subsequent management and administration of other projects by the communities. As noted earlier, the municipal governments are learning to apply the participatory methodology to other projects which are not financed by PRODEL.

The need to allocate funds as a counterpart to PRODEL's resources had a positive impact on the tax collection system in Ocotlán. In 1996, the municipal government was able to increase its tax collection by 30 per cent; this was the result of interest by the municipal authorities in managing directly the programme resources. However, it also reflects the fact that the population was prepared to pay taxes when they saw results. According to one of the leaders of the *barrio* Hermanos Zamora, where the programme upgraded streets, "...we realized that our taxes were being invested in works in which we ourselves had participated in the identification, definition, execution and auditing of the projects." This continued after Hurricane Mitch, even though family income levels diminished as a result of the economic crisis.

## **b. Evaluation of the Participatory Process in the Infrastructure Component**

The programme shows that limited amounts of outside financial resources can generate benefits for a large number of people in marginal neighbourhoods by means of the infrastructure component (see Table 3). In total, 38,000 families benefited and contributed more than 155,000 days of labour. The per capita investment over five years was US\$ 22, of which 57 per cent came from outside resources and 43 per cent from local resources. PRODEL also succeeded in meeting its original objectives in terms of working with the poorest groups, mobilizing local resources and establishing a participatory methodology which has already been replicated in eight cities.

PRODEL's ability to mobilize matching municipal and community contributions is the

key to this process. The purpose of introducing participatory financial and administrative procedures was to improve efficiency and transparency in the management of funds by municipal governments and to improve their relations with communities. The community participates throughout the project cycle, from the definition of the areas of action and the identification of problems and projects to the management and administration of funds. This has created a significant capacity to target resources and to identify and plan infrastructure and urban projects. The rest of this section presents an evaluation of the community participation in the different phases of the project cycle.

**Municipal commissions.** The participation of community representatives has been more formal and relatively passive, and other members of the commission have, in general, made the decisions. Nevertheless, the presence of representatives has legitimized the actions of the municipal government vis-à-vis the communities. It has also given the community representatives the opportunity to learn about (and contribute to) the process by which the municipality establishes annual operating budgets and general development work plans. The community leaders also had an opportunity to become acquainted with the most important variables involved in the decision-making process at the level of central and local institutions for the provision of infrastructure and urban services.

**Micro-planning workshops.** Participation by community leaders and other community members is more active and intense. The mechanism allows participants to gain a greater understanding of their problems, of the solutions to these problems and of the type of infrastructure and community projects which can be carried out. Communities understand the criteria for assessing projects such as the urgency, the cost of the solution, the sequence of work required, the time required for the design and execution of the construction work, the technical complexity and the contributions from each party. On more than one occasion, there have been serious discrepancies between the urgency assigned to a problem by the municipal government and by the community (see Box 2). The micro-planning methodology makes it possible to create a consensus so that the technicians can gain a thorough understanding of the real problems facing the community and the community understands the financial and technical complexities of a project.

### **Box 2. The Changes in Priorities arising from Micro-planning in Estelí**

As part of its urban development plan, Estelí's local government wanted to build a children's playground in *barrio* La Union. The micro-planning exercise revealed that the community had different priorities. Many inhabitants of the *barrio*, disabled as a consequence of the civil war, urgently demanded the construction, upgrading and repair of the streets which would allow them to move in their wheelchairs without fear of getting stuck in the mud during winter. Street repairs in the neighbourhood and the construction of a kilometre-long pedestrian sidewalk connecting the centre of the city with the community were carried out. With community participation not only of *barrio* La Union but also of other communities, the access road was improved and the sidewalk is currently being used by hundreds of families who live in the adjacent neighbourhoods.

The micro-planning workshop and its subsequent report to the general assembly meeting provide an opportunity for the community to earmark their contributions for the design phase, the execution and subsequent preventive maintenance. On some occasions, these contributions exceed the minimum required by the programme. For instance, in Chinandega, the savings achieved by community supervision and labour amounted to more than 10 per cent of the total cost of the work on each project. Day-to-day supervision by CPAC's members increased the productivity of both skilled and unskilled labour, and the project was completed in less time than scheduled. In the latrine project in Carlos Fonseca neighbourhood, community participation accounted for more than 18 per cent of the value of the work. Community contributions amounted to 19 per cent of the project in the electrification of Carlos Nuñez neighbourhood, and 24 per cent in the construction of the gutters and sewers in Pedro Joaquín



Chamorro neighbourhood.

Nevertheless, the negotiation of community contributions also depends on the attitude of the municipal government's project manager. If the signals he or she sends to define the involvement of the community counterparts are unclear, people tend to expect greater contributions from the programme and from the local government but not from the community. This problem has been exacerbated in recent years as a number of social infrastructure projects have been entirely subsidized by foreign aid and did not require any active participation from beneficiaries. In some local governments, and also within the central government, this has generated the notion of a paternalistic government with citizens as clients, resulting in a passive, "wait and see" attitude in many communities. One of the *barrio* leaders of a community in Chinandega was asked to explain why the community did not want to take part in the PRODEL projects. He stated: "Why should we get into something so complicated when we know that there are other programmes which have a great deal of money and we can get them without requiring anything in exchange and effort!"

Experience shows that the low levels of income are not an impediment to obtaining substantial financial contributions from very poor communities. When confronted with the blunt alternatives that are the result of the scarcity of tax revenues and of budget cuts, the communities have demonstrated an ability to overcome habits and traditions of paternalism without necessarily threatening their low family incomes. The low income levels of the residents in *barrio* Mauricio Cajina in Somoto, one of the poorest areas of the city (60 per cent of its economically active population is unemployed), did not prevent them from providing labour and making financial contributions to the development of their project. In four months, US\$ 5,000 was collected through the organization of raffles, community dinners, parties, dances and other activities all over the city. The money was used as their contribution to the construction of 285 metres of sewer line, one of the key projects to prevent floods.

**Project design and preparation for project execution.** Participation is intense at the project committee level but not necessarily so in the rest of the community. The advantage of the process is that the community and leaders gain a better understanding of the technical and financial complexities of the design of and preparation for the execution of the infrastructure projects. An awareness of the local factors which affect the population assists the technical staff in overcoming the obstacles which are generally encountered in the introduction of public services and infrastructure in existing squatter areas, and which can slow down the development of the project. Participation in the design phase is greater in the case of schools, parks and recreational facilities. For projects which involve the introduction or expansion of roads, electrification, sewers and water, the participation is less and the municipal technical staff must work harder to explain aspects of the design and operation of the service. Participation in these phases means that local authorities must develop negotiating capacities to arrive at practical solutions to concrete problems that cannot be solved only by the municipal government. This requires a willingness to empower local communities to assume certain functions, which requires giving the communities more space to participate in the decision-making process, and a transfer of more control in the administration of the resources provided by the municipal government.

In addition to optimizing resources, participation is an important vehicle of social communication to improve neighbourhood relations. This was the case in an electrification project financed by PRODEL in three communities in Ocotal. In the early 1990s, these communities were formed by ex-Sandinista soldiers, former soldiers of the Nicaraguan Resistance (*contras*) and refugee families who had returned from neighbouring countries. The level of mistrust between these groups was high. As part of the project, the groups formed a single community project committee which managed and completed the project with a high level of participation from their respective communities.

**Project execution.** This is the most delicate phase and requires considerable training and empowerment from the municipal government. Tensions frequently generated relate to the fact that the technical and financial officers from the municipality believe that the empowerment process is an activity which is exclusively for a social worker and they do not become involved in the process of transferring know-how to the community. On more than one occasion, this phase has also rekindled acute conflicts within the neighbourhoods, which affects the ability to

prioritize the problems, define possible solutions and form the project committee. On average, 3 per cent of the families in each neighbourhood do not want to contribute and can generate obstacles to project execution.

Nevertheless, this process can also produce situations of positive competition within the neighbouring communities. In *barrio* Primero de Mayo in the city of León, the identification of a paving project generated a “competition” between two sections of the same neighbourhood to determine in which of the sections the project would be carried out. The section that raised most matching funds and had a better community organization for the execution was awarded the project. The result was a community contribution of close to 15 per cent of the amount of the project, greater than the 10 per cent generally required by the programme. The municipal government also added a condition to the execution of the project that all families be connected to the recently constructed sewage system. This had a favourable impact on the maintenance of the project once it was completed. The idea of a competition to gain access to projects by means of matching funds has spread to other communities in the city.

If project approval is not rapid, and if the municipal government is not prepared for the physical execution, the enthusiasm of the CPAC can decline. In this sense, the amount of information on delays available at the level of the community is important. This period of time can be used to define with greater precision the contributions to be made by the community. Ultimately, however, the community organization may turn out to be problematic if the time required by PRODEL, the municipal government and the community are not compatible. Projects which take longer to complete can also reduce the level of participation by families. Such projects require effective channels of promotion, communication and understanding of the complexity of administering the organization and community participation in established squatter areas.

**Participation in project execution and administration.** This allows improved control of municipal resources. By combining the information managed by the municipal government with the information available in the community, it becomes possible to determine how and where the resources are being used, which gives greater transparency to the management of the project by the local government vis-à-vis the community. Concerns by local governments that they may not be able to meet the objectives set in their annual construction plans can lead them to limit the participation of the community and training for the execution. Consequently, this phase requires clear methods that minimize the conflicts between the traditional ways in which municipal governments take decisions and administers resources. The auditing procedure, in the presence of the community members, has also increased the level of trust between the community and the local government (see Box 3).

### **Box 3. Municipal Learning with Regard to Participation**

“We previously had an erroneous idea of what community participation was. We knew that it was a key element with a great deal of economic and human potential for municipal development but in fact we were not providing any space in which it could take place. We are now convinced that it is essential to have community participation in all possible processes and all stages of the projects. This participation has facilitated the creation of coordinating committees and the identification of opportunities between the communities and the local government, which has been beneficial to both sides. Involving the communities has given the *barríos* greater confidence in the management and transparency of the funds by the municipal government. There is now improved communication and understanding between the members of the communities and the municipal government, and a higher level of satisfaction on the part of the population with the projects which have been carried out.” (Manuel Maldonado, Mayor of Somoto)

“Previously, participation by the communities was limited to the public sessions of the city council. These are generally merely informative and requirements are planned in a very general context. PRODEL’s methodology has made possible a more active participation by the communities, their leaders and the families in the decision-making process, and has created a forum for negotiation between the municipal government and the community for the prioritization of problems. The

communities have also participated in solving their problems by a more direct involvement and by the contribution of resources. This process has changed attitudes on both sides. Previously, the community thought that the solution to problems was exclusively the obligation of the local government. For its part, the municipal government thought that the community only knew how to make demands and did not have the capacity to co-administer projects and to contribute resources for project execution." (Marlon Oliva, Former Coordinator of the Ocotal Technical Unit)

The administration of a project with community participation also results in decreased loss and waste in the use of construction materials. This is one of the areas where the building costs of projects carried out directly by municipal governments probably increase without community participation or under terms of contract with construction companies hired through public or private tender offers.

Although the costs for projects carried out with community participation are not necessarily lower, they are more realistic and some of the resources saved can be used for physical extensions to the project. The costs for project supervision, if shared, are minimal. Administrative and supervisory costs for projects carried out using PRODEL's methodology fluctuate between 3 and 5 per cent of total project costs. Depending on the type of project, at least a quarter of these costs are contributed by the community and the remainder by the municipal government. The low cost of project supervision is due to the fact that one or two municipal engineers can supervise five projects at a time, which can result in greater efficiency in each project. A comparative analysis of paving projects carried out with and without community participation in the city of León shows that the cost of the project carried out by a private company was 23 per cent higher than the cost of the project carried out using the PRODEL methodology (see Box 4 for more details).

The reduction in cost per square metre in the paving project which involved community participation compared with the project which did not occurs in those activities where labour and administrative contributions by the community can be more intensive. Such activities include moving earth (hauling of selected material, cutting, filling, landscaping and compacting, and removal of the excess dirt from the excavation), laying cobble stones, compacting pavements, cleaning, and the administration and supervision of the project.

**Box 4. Comparative Analysis of Two Paving Projects carried out with and without Community Participation in the City of León in 1997**

Characteristics		
Name of the community	Pedro José Avendaño	Primero de Mayo
Origin of the funds	External, via the Nicaraguan social investment fund (FISE)	External, via PRODEL, supplemented with funds from the municipal government and community contributions
Project carried out by:	Private construction company selected on the basis of a competitive tender offer	Municipal government of León and the community
Cost of the project charged to the external resource	100% of the total (for labour, materials, equipment and administration)	65% of the amount (for construction materials and specialized labour)
Contribution from the local government	Design and supervision activities (not counted in the cost of the project)	23% of the total amount of the project in equipment, administration, design, supervision and skilled labour
Contribution from the community	None (only FISE approved companies eligible to carry out the project)	12% of the cost of the project (labour, administration and supervision)
Project priority determined by:	Local government	Local government and the community
Users' perception of the benefits generated by the project	Economic, for the private contractor	Social, for the community
Responsibility for project maintenance	Local government	Local government and the community
Management of resources	FISE transfers resources directly to the contractor	PRODEL transfers resources to the municipal government
Verification of correct use of the funds	FISE, municipal government and external auditor	PRODEL, outside auditor and community
Unit price per square metre of construction	US\$ 16.00	US\$ 13.00
Volume and amount of the project	4,700 square metres (US\$ 75,200, not counting the design and supervision by the municipal government)	2,747 square metres (US\$ 35,711, including costs of design and supervision by the municipal government)
Time between presentation, design, approval, contracting and completion of the construction projects	Approximately four years	One year
Cost of administration and supervision	15% of the total amount	5% of the total amount
Quality of the project	Good	Good
Users familiarity with the project	Poor	Good
Better conditions in the neighbourhood	Yes	Yes
Principal problem identified by the users	Delay in starting the project and interference with access to the neighbourhood during the construction phase	The resources were not sufficient to pave all the streets in the neighbourhood

SOURCE: Information provided by the Executive Technical Unit of the City of León and interviews with residents of the "Pedro J. Avendaño" and "Primero de Mayo" neighbourhoods.

Participation in the execution of projects also requires clear signals which help to establish the links between the community infrastructure or services introduced and the value of the individual home. This helps the families to appreciate the benefits that they receive from their contribution to community projects.

*"A community leader in Chinandega, who was making his contribution to the*

*community construction of deep trenches for the installation of pipelines that would connect to the city's sewer system was asked how the value of his house would change as a result of the project. He did not hesitate to respond with the calculation he had previously done in his head: the value of his home would more than double as an immediate result of this improvement to his own house and the barrio.”<sup>(10)</sup>*

The type, amount, urgency and complexity of the project are obviously factors that municipal governments must take into consideration when determining participation procedures. Project managers are often reluctant to promote participation because they think it delays the correct and timely completion of projects. The need for compliance with the municipal technical unit requirements, and continuous supervision and control of the implementation of the programme have made municipal government department employees realize the variables involved in participatory projects.

The project approval and contracting methods generally employed by local governments or by state entities for works that require private tender offers can lead to significant delays in their execution. The joint execution of the project with the community involves the families in negotiations with central and local government entities, which helps to speed up the approval process as well as the disbursement of funds for project execution. Sometimes, the absence of reference costs means that local governments and community members do not have any criteria to determine whether the costs being described are realistic. At least in Nicaragua, the unit costs are high even if the costs of supervision remain hidden. Moreover, those who award the contract generally invite the bidder, which means that the process can be manipulated. Finally, the traditional methods of issuing calls for bids and awarding contracts entail additional costs which can reduce the amount of money available for investment in the physical project. This does not mean that bidding and tender processes should be eliminated but shows that transparency in the bidding process can be greater if communities are also involved.

**Operation and maintenance of the project.** When the actual project construction has been completed, it is expected to leave behind a community structure with the ability to manage and negotiate with the municipal government. PRODEL, the municipal government and the communities evaluate the community contribution, the organization which has been established during the execution, the quality of the work and any unresolved needs which are indicated in the micro-planning workshop, and address them accordingly. In terms of post-project preventive maintenance, PRODEL's experience is relatively recent. Yet it has produced important lessons that were used in the establishment of a national preventive maintenance fund by the Nicaraguan Social Investment Fund for the maintenance of the primary health and educational systems. As in the case of PRODEL, the goal is to create a fund with resources which promotes local and community contributions.

The communities pay for the water, sewage and electric power services provided and make additional contributions in the form of labour for the preventive maintenance of schools, roads, health facilities, recreational facilities and parks. The link with the Sistemas Integrales de Salud (SILAIS – Integrated Health Systems) has made possible the development of landfills for garbage collection and the cleaning of sewers, which has resulted in improved project maintenance. In Phase II of PRODEL, the municipal governments and communities will contribute *ex-ante* resources for the creation of a preventive maintenance fund before the completion of a project. One of the critical problems which has been identified in terms of the operation and maintenance of the services relates to the connection of households to the established systems, in particular when there is no financing for this process. PRODEL has established information campaigns and incentives for the municipal governments so that, together with the community leaders, they can promote the process of connection by means of a home improvement loan or with the families' own resources. Box 5 illustrates how the extent of a project's connection with the community influences the quality of maintenance.

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<sup>10</sup> Interview conducted in November 1996 with leaders of PRODEL's projects in the city of Chinandega. Fernando Rojas (1997), "Maintenance fund", Managua, FISE-IADB.

### Box 5. Community Participation and Maintenance of Child Care Centres

A comparative analysis of two child care centres being operated by members of two communities in the city of Ocotal showed how the level of community participation influenced the quality of the maintenance. The physical condition of the installations located in *barrio* Santa Ana, in which the community participated in the identification of the project and its construction (through labour and financial resources), was better than in Nora Astorga. In Nora Astorga, there had been no community involvement in either the identification phase or in the execution of the project, and no requirement for contributions from the community for its maintenance. In Santa Ana, there is a sense of ownership of the project, the community has made a census of the children in the neighbourhood and it has been able to negotiate agreements with the municipal government and other government institutions to provide food for the children. In Nora Astorga there is very little assistance provided to children, there is no information about their numbers and there are no agreements with private and government institutions which financed and supported the construction of the care centre at the time.

**Women's participation.** This has been successful because measures were taken to promote their involvement in all phases of the infrastructure project cycle and to encourage their participation in the other two loan components. PRODEL has dealt with gender issues in a pragmatic manner, giving preference to projects which addressed women's needs and also involving women in the process of evaluating their own needs and making decisions as well as in the planning and administration of projects. It also sought to provide incentives for men to participate more in the construction of the projects whilst the women had greater roles in management and administration. The methodology increased the role of women not only as physical builders of projects (some 25 per cent of unskilled labour are women although no progress was made in the incorporation of skilled female workers) but also in administrative and supervisory capacities. In the micro-planning workshops, the situation is quite different, since more than half of those attending are women. In management and supervision, 50 per cent are women, and they also make up three-quarters of all team leaders.

*"The role played by women in other programmes has changed since PRODEL gave them equality in participation in the various stages of the project, something which had never been done before. Previously, women's role was to prepare coffee, cold drinks and food. PRODEL represented a major change because women were present at every stage, from the identification of projects to their completion. The tasks performed by the women in our city included warehouse managers, finance managers and even carrying building materials in the various parts of the project. It has been shown that a woman can do anything a man can, which has allowed women to assume a new role."*<sup>(11)</sup>

#### c. Housing Improvement and Micro-enterprise Loans

In the neighbourhoods in which the programme is active, the municipal government, PRODEL's local coordinator and the loan officers from the Banco de Crédito Popular (BCP) prepare a joint strategy for the promotion of housing improvement and micro-enterprise loans. For micro-enterprise loans, the Bank's loan officers visit the houses where the (generally family-owned) businesses and workshops are located. The analysis is based strictly on the financial viability of the business in accordance with a cash flow statement which is discussed

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<sup>11</sup> Manuel Maldonado, mayor of Somoto, and Osmín Torres, coordinator of the technical unit of the Somoto municipal government.

between the loan officer from the Bank and the owner of the micro-enterprise.<sup>(12)</sup>

Information on housing loans is disseminated through a series of informal meetings at community centres or schools. Representatives of the Bank, the municipal government and PRODEL explain the terms of the loans,<sup>(13)</sup> the technical assistance provided by the municipal government and the commitments which families must assume in terms of the use of the loan and repayment. Interested families complete a preliminary application, giving basic information on the location and condition of the home, the employment status of the potential borrower and the socio-economic characteristics of other family members.

The Bank's loan officer visits each family's home and conducts a preliminary credit analysis to determine the need for improvement, the family's borrowing capacity and affordability, whether a loan can be made and the maximum amount affordable by the family. The loan officer takes into consideration the monthly family income and expenses and also analyzes the land tenure situation, the type of collateral that may be offered by the borrower (mortgage, goods and even title to the construction materials) and the sources of income. The sex of the borrower, the type of improvement to be made, the credit history and personal references for the borrower, which may be provided by neighbours, are also taken into consideration.

The loan officer from the Bank informs the municipality's Technical Housing Assistance Office (ATV)<sup>(14)</sup> of the potential maximum amount approved for each borrower. In some cases, the Bank's loan officer and the municipal official visit the house together. The technical consultant inspects the house, identifying the location of the various spaces and utilities of the property, the type of materials used, any potential structural problems and the need for expansion, repair and/or improvement.

The consultant also identifies problems and establishes priorities for solutions with the family members. In general, the household head and his or her spouse or living companion are present during the inspection along with their children. The idea is to take into consideration the problems, needs and priorities of all the people living in the house but in particular those of the women and children. The technical assistance helps to guide and provide criteria for the family so that they can give priority to solving problems of overcrowding and environmental hazards. Emphasis is given to kitchen stoves close to the children's bedrooms, unventilated rooms, absence of drinking water and sewage systems, improper disposal of grey waters and garbage collection. Ultimately, it is the family who decides its priorities and requirements, but in an organized manner, and the decision is subject to a weighting system applied by the technical consultant on the basis of criteria such as urgency, cost, sequence and time required to effect the improvements.

The final outcome is the identification of the type of improvement that has the highest priority and the development of a plan of action for a gradual improvement of the house. The technician takes into consideration the costs that can be covered by the loan and the resources the family already has (accumulated construction materials, volunteer labour, project supervision tasks, and money available to pay for skilled labour and the transport of the materials).

Once the priorities have been established and the family's available resources have been analyzed, the technical consultant prepares a budget, a schedule of activities and a brief report

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<sup>12</sup> Loans fluctuate between US\$ 300-1,500 and are recovered over a maximum of six months. Interest rates are high (up to 36 per cent per annum) plus maintenance of value (ie. the indexing of the local currency compared to the US\$) (about 12 per cent per annum). The average loan is about US\$ 400.

<sup>13</sup> Loans fluctuate between US\$ 200-1,400, repayable in four years at interest rates of 12 per cent per annum plus an adjustment for inflation (ie. the indexing of the local currency compared to the US\$), which gives an effective annual interest rate of 24 per cent on the outstanding balance. The average loan is for US\$ 650 and the monthly payments vary between US\$ 20 and US\$ 35, depending on the financial capabilities of the family in question.

<sup>14</sup> The technical consultant is generally a young professional in the field of architecture or construction who is a direct employee of the municipal government. One per cent of the amount of the loan is added to the wages and allowances this employee receives from the municipal government.

describing the current situation and the type of improvements which can be made. The budget also describes what activities the loan and the family contributions can cover, and the plan defines the possible improvements to be made on the basis of the current loan. The borrower, who agrees to carry out the improvements defined with the technical consultant, signs the budget. An additional purpose of the budget is to make it possible for the borrower to maintain some economic control over the improvement construction process, assuming that the costs in the budget are close to the real costs.<sup>(15)</sup>

On the basis of the prepared budget, the beneficiary requests the loan from the Bank, providing the collateral and submitting the forms required. The Bank generally issues a single cheque which the borrower uses to buy materials and, in some cases, to hire labour. The invoices for the materials remain in the borrower's file at the Bank. Five to ten days after the loan has been made, the Bank's loan officers visit the home to verify whether the family has bought the materials and begun the construction process.

The technical assistance department makes at least one more visit to supervise the construction process and to provide guidance to the family and/or to the masons who are working on the project. In general, projects do not take more than 30 days. When the head of the household is a woman, the technician tries to maintain closer monitoring to assist her in the process of supervising and administering hired labour. The families participate in the construction process in different ways, by estimating the required quantities and buying the construction materials, hauling the materials to the site, mixing and laying bricks, and supervising the bricklayers if they do not take part in the process.

One month after receiving the cheque, the borrower begins to repay the loan over a period of up to four years. The Bank services the loan and monitors the placements and collections of the rotating fund. If the loan is not repaid and the normal administrative collection procedures have failed, legal action is taken to exercise the guarantee. Although the loans are individual, on some occasions the Bank has had recourse to the community project committees to ask their assistance in collecting payments from defaulting borrowers.

#### **d. Evaluation of Participation in Housing Improvement Loans<sup>(16)</sup>**

The system of housing improvement loans is based on the premise that most poor families build their houses in an informal way without any support or assistance from central and local governments or the private sector. They usually achieve this through a long and complicated process of hard and difficult savings and mobilization of family and inter-family contributions. The programme tries to create the conditions which will enable families living in marginal squatter areas, generally not regarded as part of the loan market, to have access to resources from the institutionalized financial system. It also seeks to give technical assistance in a rapid and easy manner that will allow them to accelerate their housing consolidation process. The programme is based on the fact that a good part of the population in the cities where the programme operates own a plot of land or are in the process of legalizing land tenure. Assistance therefore contributes to the process of self-help construction, with a defined and guaranteed participation by the users in the administration and in construction. The impact of the participation of user families in the housing component can be appreciated on the basis of the parameters discussed below.

The programme has created healthier environments, a reduction in overcrowding and improvements in the standards and systems of construction in at least 4,000 houses, which represents approximately 4.5 per cent of the total housing stock in the cities and 14.5 per cent of

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<sup>15</sup> This is one of the issues the technicians sometimes fail to take into consideration and which makes it impossible to determine the actual cost of the improvement and the actual weight of the loan in the total cost of the improvement project.

<sup>16</sup> This section is based on Morales, Ninette and Edgard Herrera (1997), "Evaluación: prestación de servicios de asistencia técnica en mejoramiento habitacional en cinco municipios" (Evaluation of technical assistance services in home improvement projects in five cities), Programa PRODEL, Managua, December 1997.



the households classified as poor. A sample of 69 houses studied in the five cities in the first phase of PRODEL shows that the creation and improvement of healthy environments and attending to the problems of overcrowding in the houses were the users' first priority. In second place was attention to the structural safety of houses and the security of the house perimeters to protect against external theft and crime. Finally, attention was paid to improving the levels of comfort in the building.

This process increased the administrative capabilities of the local governments and communities in general, but in particular the capacity of women with regard to problems relating to their households.

In ten cases selected at random for study in the cities of Somoto Estelí and Chinandega, when the question was asked who in the family performed the administrative tasks involved in the construction process, the following results were obtained: in five cases, the wife did the administrative tasks directly. In one case, the tasks of buying the materials, hiring the labour, supplying the materials and supervising the work were shared with the husband. In the other four cases, the women participated only in the procurement of the construction materials.

The assisted self-help construction and access to credit provided a major impetus to the local economies, mobilizing more than US\$ 2.5 million in purchases of construction materials, many produced locally in small micro-enterprises in the five cities (cement and clay blocks, adobe, cement tiles and bricks) – see Box 6.

#### **Box 6. Multiplier Linkages between Housing Improvements and Local Businesses**

Three years ago, Carlos Mungia's micro-enterprise, which produces cement blocks and is located in one of the *barrios* in the city of León, had two employees (Mr Mungia and one assistant). The increasing demand for building materials from the recipients of the housing improvement loans in the neighbouring communities has been such that he currently has six full-time and seven part-time employees. His success is also partly due to the micro-enterprise loans, which Mr Mungia has received from the micro-enterprise component of PRODEL via the Bank.

The housing improvement loan component has also generated indirect employment for some 270 persons in the construction sector. This means about 40 jobs per city in the programme's first phase. Family contributions, which add 15 per cent of the value of labour and transport, may represent up to 36 per cent of the actual cost of each housing improvement.<sup>(17)</sup>

The technical assistance is a new service which gives local governments the opportunity to learn how to support housing improvement. The programme has generated a base knowledge of ideas, standards and methodologies for technical assistance to user families. This required a major effort by PRODEL to train municipal technicians and the Bank's loan officers and other employees. The idea is that they can understand the complexities of the loan operations and manage the design, planning and definition of solutions in a process which involves the participation of the target population.

Some of the programme's main weaknesses relate to the manner in which the financial and technical/construction aspects must be defined simultaneously with thousands of user families. The informal introductory meetings are often not enough to explain the type of work between the technician and the end-user or for the family to understand the complexities of the loan's financial terms. Sometimes, the incorrect preparation of project plans, budgets and schedules can affect the progressive development of the home. In all the cities, supervisory site visits have been insufficient, late or, even, have caused errors in construction itself. Nor was sufficient effort made to train the staff. Also, at times, the beneficiary families do not see the link

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<sup>17</sup> Calculation is based on the average labour of three persons: one skilled worker and two unskilled assistants, for an average period of one month for each house that is improved.

between the technical assistance and the opportunity to obtain a better quality house design and construction at a reasonable cost, and to repay the loan in accordance with their capacity to pay.

These problems relate not only to the existing capacities of municipal technicians and the Bank's loan promoters but also to the difficulties of administering a portfolio of thousands of small loans and coming up with technical solutions for a large number of small and very varied on-site improvements scattered over a wide geographical area and carried out individually by the families or by construction workers. The possibilities for control are therefore more complex.

Nevertheless, like the infrastructure component, the housing improvement component shows that the urban housing problems that the urban poor face are not necessarily only a lack of financial resources. Making institutionalized financing systems and technical assistance accessible to poor families stimulates their internal savings, mobilizes significant family resources and improves the overall housing situation. The repayment levels are acceptable, in spite of the non-conventional collateral provided, and the rotating funds system is close to achieving financial sustainability. Good financial performance depends less on the families' collateral and more on the pre-loan analysis and approval, the type of information given, the follow-up by the Bank and the administrative procedures for cost recovery.

A thorough analysis of a sample of 15 per cent of PRODEL's portfolio found that there is no clear relation between the rate of default and the type of guarantees given by the families as collateral for their micro-enterprise or housing improvement loans. Over and above any collateral, other key elements for an efficient administration of a portfolio such as PRODEL's are the pre-loan analysis and approval, the type of information given, any follow up by the Bank and the administrative procedures for cost recovery.<sup>(18)</sup>

## VI. LESSONS LEARNED

THIS PAPER HAS considered the link between poverty reduction, participation and sustainability. It has shown that there are methods and processes that serve poor people and that may help to lift them out of poverty. It has also illustrated how poor groups can receive support from external cooperation and obtain the benefits from these programmes. The paper has also illustrated some key pre-conditions that are necessary for successful poverty reduction programmes, which include recognizing the different needs and resources available within low-income groups.

The experience gained by PRODEL in eight Nicaraguan municipalities has yielded important lessons regarding the potentials and limitations of community participation and institutional and financial sustainability in social programmes aimed at providing infrastructure, social equipment, housing improvement and income generation, especially for the urban poor. The results of the programme suggest that community participation has been a determining factor in:

- **improving the quality of life of the poor:** more than 38,000 poor families whose basic needs are not being met, and who represent 47 per cent of the total population of the eight cities, improved the conditions in which they live. They improved their access to basic infrastructure and services by participating in the definition, execution and maintenance of 260 infrastructure and community works projects. Some 4,168 houses were improved or expanded and some 2,400 micro-enterprises supported;
- **targeting and focusing social investments to the poor:** the involvement of community leaders in the municipal commissions has made it possible for local governments to identify more accurately the geographical areas of the city where there are higher levels of poverty as well as requirements for infrastructure and urban services. Participatory

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<sup>18</sup> See Consultoría, Gestión y Cobranza (1998), "Análisis de cartera del programa: municipios de Chinandega, León, Estelí, Ocotal y Somoto", Managua INIFOM-PRODEL, December 1998.

micro-planning exercises conducted in 150 different communities made it easier to identify the type, amount and scope of projects required by each *barrio*. These two mechanisms of participation in the decision-making processes have helped to increase the efficiency and accuracy of the diagnostic measures and the proposals prepared by the municipal governments for the annual social investment plans and the longer-term municipal development plans;

- **making more efficient use of public resources:** as local governments developed projects in conjunction with communities through micro-planning workshops, public investments (including those provided by central government via the municipal government and the municipal government's own tax revenues) reflect the priorities and preferences of the users and the actual capacities of the municipal government in providing and financing services. Experience shows that these preferences are not always for new services but are also for the improvement, expansion, repair and maintenance of existing services and systems. These have a positive impact on the costs of the solutions and optimize the utilization of the municipal government's scarce resources for this type of work;
- **improving accountability and transparency:** the participation of beneficiary families in different phases of the operation and in the management of the infrastructure projects helps to establish new habits of control within municipal governments and better reporting to, and joint responsibility with, the communities. It also improves the understanding of the role of the municipal government, including the real limitations in the technical and financial resources available to address the problems of the poor;
- **mobilizing internal savings:** contributions from the communities in kind, in labour and in materials exceeded 10 per cent of the direct costs of the infrastructure and community assets projects and exceeded 15 per cent of those for housing improvement. This mobilization of local and community resources also encouraged the municipal governments to improve the tax collection processes, in response to the programme requirement to come up with local matching funds. The resources mobilized over four years totalled US\$ 10.5 million, 53 per cent coming from central government (with foreign aid financing provided by Sida) and 47 per cent from local governments, the communities and the user families (including loan repayments);
- **reducing the costs of the projects:** community participation was shown to reduce project costs by up to 20 per cent, mainly due to contributions from beneficiary families in the administration and supervision of the project as well as their contributions in terms of skilled and unskilled labour;
- **increasing social and gender equity:** the experience shows that community participation can help direct the benefits of projects towards the poor and vulnerable sectors of society. In the case of housing improvement and micro-enterprise loans, the primary beneficiaries have been poor sectors with a certain capacity to repay their loans. The participatory methodology employed also facilitated women's access to the benefits of the projects and the loans;
- **revitalizing local economies:** in addition to making some 12,000 loans to finance 2,400 micro-enterprises, the other components also contributed to local employment. In the area of housing improvement, the self-help construction processes have revitalized and consolidated micro-enterprises which produce local construction materials. There has also been an increase in the use of skilled and unskilled workers who were unemployed in the areas where the programme operates. The participants in the infrastructure projects were also able to establish the economic link between the individual effort required in the construction and maintenance of the works of collective benefit, the improvement of the specific conditions of their family habitat and the future value of their houses;

- **improving national reconciliation:** the changes in attitude and contributions among the principal participants have made the relationship between local governments and the communities more transparent. These relations are now based on incentives and the structuring of concrete alliances founded on tangible plans and solutions, not merely on simple social demands and false promises and expectations. The participation methodology also helped to facilitate communication between antagonistic groups, and to coordinate positive actions for the improvement of living conditions in neighbourhoods between groups which might appear to be politically and ideologically irreconcilable;
- **making programmes sustainable:** the system of incentives established for the contribution of national, municipal and community resources, and the involvement of beneficiary families in the management and administration of the project cycle have created a solid basis for an increased commitment and division of responsibilities between participants. This facilitates the maintenance and sustainability of projects. Evidence also suggests that sustainability of social programmes can best be achieved where there is a clear division of labour between financial institutions and those organizations that give technical and social assistance. The fact that a bank operates at the level of the community has also been a critical factor in a good cost recovery record for loans.

There were also some external factors which facilitated the design, organization and implementation of the PRODEL participatory model:

- **non-partisan programmes:** in spite of the political changes in Nicaragua in the last five years, authorities from the central government institution responsible for the promotion of the programme and the local governments (regardless of their political tendencies) have made it possible to create alliances and to utilize methodologies which provide incentives for the participation of poor families, without any discrimination on the basis of political, ideological or religious factors. There is always the temptation to make use of scarce resources for partisan purposes but if the rules of the game between the funding agency and the recipient government regarding the misuse of funds are clear, the chances of avoiding this are greater;
- **programmes with limited resources:** experience shows that the lack of urban services and facilities in marginal neighbourhoods is not only a problem of a lack of financial resources. It also relates to the methods which promote the involvement of communities in the processes of decision-making and administration of projects. It is therefore important to ensure the availability of (limited) resources which stimulate and provide incentives for community contributions. As in PRODEL, these incentives can be for the introduction of urban infrastructure and services, and the possibility of individual household improvements in the form of the housing and micro-enterprise loans. By quantifying the real and positive contributions of participants (in terms of money, materials and labour), the municipal governments gain an understanding of the importance of cooperating with and involving communities. They enhance their legitimacy and mobilize real resources, which gives the communities greater control and decision-making authority over the use of the scarce tax and outside resources available to municipal governments;
- **work with existing institutions:** in the case of PRODEL, it was important to identify and utilize the institutions at the local level which were closest to the demands and needs of the users of the services, and which could facilitate the process of community participation. The different actors were able to establish overall agreements and rules. Thus, local governments and a commercial bank (which is part of the national financial system) were able to promote different types of participatory solutions in the areas of infrastructure, housing improvement and income generation. These activities obviously

required a major effort in terms of training and the development of methodologies, which made it possible for the municipal technicians to promote participation in established communities;

- **streamlined and flexible mechanisms:** it is important to recognize that communities are heterogeneous groups of people in which there are potential beneficiaries of different forms of technical assistance and financial services. Participation in the introduction and upgrading of urban infrastructure and services requires the communities to have more information and a greater understanding of the principal technical, physical, social and financial variables which influence a construction project. At the same time, they must have rapid decision-making mechanisms and access to resources, otherwise the scepticism and mistrust of external agencies that usually prevails in poor communities remain;
- **division of functions and responsibilities:** important factors for the development of the programme are the complementary nature of activities between the administrators and other parties involved. PRODEL has been able to recognize their different corporate interests, the financial feasibility of the products and services offered, and an exact definition of what is expected from community participation in each component. Municipal governments try to involve communities in co-financing the projects and in contributing to the maintenance of the infrastructure and community assets. The commercial bank aims to increase the commissions it will earn from managing the portfolio of housing improvement and micro-enterprise loans, and to accumulate capital for the rotating funds. In fact, the effectiveness of the relationship and the coordination between the participants in the programme has been more effective when the sequence of the components of the programme has been discussed and planned with the community and its leaders;
- **adequate social organization of the community:** it is common for projects of this type to have unrealistic expectations with regard to what can be accomplished through community participation. Actions are based on models of community organization which have very little to do with the requirements of the construction processes. When providing infrastructure in established communities, it is important to strengthen the participation and organization of the beneficiaries by territorial divisions appropriate to the neighbourhoods. It is also important to promote the democratic election of representatives for each block in order to be able to do better technical work as a result of the administrative and physical design of the project. The different commissions and committees formed must be in line with the complexity and nature of each project. These have been effective instruments in the programme's ability to accomplish its physical and social goals;
- **empowerment of and technical assistance to the beneficiary families:** community participation requires effort in order to provide the families with new options, capacities and skills in different areas. This mainly relates to the identification and analysis of problems (micro-planning workshops), project planning (design, scheduling, budgeting), mobilization of internal and external resources, specialized physical execution, the administration and supervision of the projects (inventories, audits, etc.), the evaluation of projects (impact and efficiency in the use of the resources) and project maintenance (cleaning campaigns, security and protection of the project constructed, and management of resources for preventive maintenance tasks).

Finally, in spite of its successes, PRODEL must be further consolidated if it is to have a greater long-term impact. The first five years have been used to test various hypotheses concerning participation and administration schemes at the local level in a Nicaraguan context. The results obtained for the three components in eight cities indicate that it is not simply a pilot project and that community participation is a determining factor in the processes of introduction, improvement and maintenance of urban services and facilities.

PRODEL's goal for the next few years is to replicate the system in other municipalities.

It will also demand an improvement in the capabilities of the local participants so that they can define and structure the permanent fora and places for negotiation which will ensure the financial and institutional sustainability of the efforts to promote community participation in a socio-political environment that changes every four years.

It will also have to deal with the issue of its institutionalization and face difficult questions regarding the future of the Bank and the type of legal structure it needs for a longer-term perspective.<sup>19</sup> Should it continue to be a governmental programme or should it try to mix private and public perspectives that will enable the programme to avoid the difficulties posed whenever there are elections? How will it retain the staff that it has trained to promote community participation? These are some of the challenges the programme has to face in the near future.

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<sup>19</sup> Unfortunately, the Nicaraguan government, under pressure from international financial organizations, closed the Banco de Crédito Popular in the year 2000. PRODEL decided to bid and tender its housing and micro-enterprise loan portfolio. Private banks were invited to participate. Although two of them showed interest in managing PRODEL's portfolio, their internal financial situation was not sufficiently solid. Thus, it was decided to transfer the portfolio to the two NGOs that started working with PRODEL funds after Hurricane Mitch.

ANNEX 1: Functions, Objectives and Modalities of Community Participation in the Infrastructure and Community Works Projects and in the Housing Improvement Loan Components of the Local Development Programme (PRODEL)

Function of participation	Objective of participation	How communities participate	Modalities and results of participation
Definition and selection of areas and communities for programme activities	Consultation and decision-making processes at the municipal level	Participation of community representatives in the monthly meetings of PRODEL's municipal commissions (consisting of the mayor, PRODEL's local coordinator, representatives of INIFOM and from state institutions which provide services such as electricity, potable water, health and education, and the Bank), in which the programme's areas of activity and the beneficiary communities are defined. The commissions follow up on the physical and financial progress of the implementation and re-scheduling of the annual operative plan of the three components of the programme (infrastructure and community facilities, housing improvement loans and micro-enterprise loans).	Formal and relatively passive members of the commission that legitimizes the action by the communities. It also gives the opportunity to become family development plans and the various decisions at central and local level.  Municipal governments that have begun to understand that they need the formation of the commissions. In fact, the internal life of the commissions is on the basis of strict partisan interests as Nicaragua. The performance of community participation at the municipal level which are inclusive and not dominated by the majority of the population.
Identification and prioritization of problems and possible solutions	Consultation, planning and decision making at the neighbourhood level	Participation in micro-planning workshops (at least 20 persons in each workshop). The community committees prepare the conditions for the workshop (identify the location, send invitations, arrange snacks). Participants identify and prioritize problems with representatives from the municipal government and from other state institutions (diagnostic phase); they prioritize, define and negotiate proposed solutions, including the potential project to be financed by PRODEL. Finally, they plan, negotiate and coordinate activities and counterpart contributions.	Active and intensive on behalf of members of the community in the opportunity for the community to identify problems and the infrastructure can be carried out on the basis of a sequence, time, technical contributions from the outset for the execution of preventive maintenance. The manner in which investments in infrastructure are planned city by city through the preparation of municipal development meetings of the city council as a participatory consultation which can be complemented by other participatory consultation which
Function of participation	Objective of participation	How communities participate	Modalities and results of participation
		In the case of housing improvement projects, community organizations are used to promote the introduction of the loan component. Nevertheless, the consultation and technical assistance provided by the municipal government occurs at the level of individual families who are eligible for a loan. The Bank provides information on the characteristics of the loan and determines the maximum amount the families can borrow.	The initial consultations at the level of actions of the municipal government and powerful groups in the city from the outset in the determination of the type of intervention. The process also increases the level of participation which are based on real, coordinated actions simply dictated by bureaucratic procedures.  The establishment of priorities with the families who will benefit from the intervention (make it possible to incorporate space, ventilation and the installation of water and waste disposal services) in the coordination of priorities and the role of Women play a key role in this process of identifying problems and solutions.

Design and formulation of projects	Development of local capabilities and efficiency in the management of projects	<p>Based on the initial structure of the micro-planning workshop, a general assembly meeting is held. This meeting defines the responsibilities and commitments of PRODEL, the municipal government and the community in the execution of the project (definitions are made regarding community contributions among the various activities described in the budget and this information is used to supplement the project profile presented to PRODEL).</p> <p>In general, the project cost does not exceed US\$ 35,000, of which PRODEL covers US\$ 22,000, although there have been projects up to US\$ 50,000. The rest of the resources are local contributions (in materials, skilled and unskilled labour, administration and cash) from the community and the municipal government. As a general rule, the contributions must equal at least 35-40 per cent of the total cost of the project.</p>	<p>Participation in the design and execution of a project is intensive at the level of the rest of the community level. The community and its representatives face financial complexities involved in the execution of infrastructure projects. The municipal government, in general, is not able to meet the demands in general. It becomes a matter of finding practical solutions to concrete problems. The municipal government on the other hand, through its neighbourhood environment builders, helps municipal representatives to address the needs. The needs are generally encountered in the execution of infrastructure to established neighbourhoods and the development of the projects.</p> <p>The participation in the design and execution of parks and recreational facilities. There is a need for the introduction or expansion of parks and water, and the municipal government makes an effort to explain the aspects of</p>
Function of participation	Objective of participation	How communities participate	Modalities and results of participation
		<p>The meeting elects a formal structure of seven persons from the community (the Community Project Committee), the specific functions of which are:</p> <ul style="list-style-type: none"> <li>a) to review the budget and the design prepared by municipal technicians, in particular the general site characteristics and the dimensions of the projects;</li> <li>b) to coordinate the project management, to administer inventories, equipment and labour provided by the municipal government and by the community;</li> <li>c) to provide reports and explanations to the community on the progress of the project and the use of the budgeted funds;</li> <li>d) to participate in the physical and financial audit of the project conducted by the municipal government and PRODEL.</li> </ul> <p>In the case of housing improvement loans, the technical assistants discuss the budget with the beneficiary, as well as the various alternatives and the costs of each solution.</p>	<p>The process requires willingness from the municipal government to empower citizens and to perform its functions. Although, naturally, the municipal government has decision-making authority, an amount of social control, also known as control, is managed by the municipal government.</p> <p>The tension that may be generated between technicians and financial officers is that empowerment is a process that does not become actively involved in the community representatives.</p> <p>In the case of housing improvement loans, the beneficiary is not always able to follow up on the project because problems when it comes to upgrading projects.</p>
Organization for the physical execution of the project	Development of capacities to manage and administer projects and to promote community development	<p>While PRODEL approves the project, the CPAC organizes the rest of the community in the physical execution. Depending on the type and complexity of the project, the organization can be by block or by individual house. The social worker from the municipal government trains the committee in the management and administration of the warehouse and the methods to control the personnel who will work on the project. The members select the area of the depot and, in cases where the contributions are monetary, they begin collecting the matching contributions from members of the community.</p>	<p>This is a delicate phase. It requires the part of the municipal government to be executed rapidly, and if the municipal government does not execute the project, the project will be delayed. The organization of the neighbourhood for the financial organization, the community are not coordinated in communication and an understanding with the community organization and the municipal government.</p> <p>This type of methodology includes as the physical builders of the project, unskilled labour is provided by the community. The municipal government made in the incorporation of the project administrative and supervisory</p>
Function of participation	Objective of participation	How communities participate	Modalities and results of participation



			The situation in the micro-pla one-half of the attendees are management and supervision: the block leaders are women.
Execution of the project	Contributions of resources, materials and labour, development of capabilities and administration of the project	<p>The committee participates in the control of the inventory, the materials, tools and equipment, as well as the control of the skilled and unskilled labour. The community participates directly in the physical execution as unskilled labour, depending on the type of project, either in the form of volunteer labour or as labour hired by the community itself for one-half of the salary of a construction labourer. The committee also looks for skilled labour within the community who can work as volunteer or half-price labour. The general proposal for community participation depends on whether the project is public or private. In the case of the installation of indoor plumbing, the participation is individual. In schools, there is more hiring of skilled labour. In the construction of sewer systems, each family excavates the section in front of its house; then crews are organized which work weekly and the teams excavate sewers, trenches and manholes.</p> <p>The community can provide its contribution in different ways and at different times, depending on the organization of the neighbourhood. In some cases, the contributions are collected before the initial organizational step. In other cases, the funds are set aside as a guarantee and are deposited in a bank account.</p>	<p>Greater control of municipal provided by the municipal go the community shows where gives greater transparency to vis-à-vis its citizens.</p> <p>The administration of a project in decreased loss and waste in one of the areas where the directly by the municipal participation or under the term hired through public or private</p> <p>Although the costs of projects are not necessarily lower, the of the resources saved can be more extensive physical project shared, is minimal.</p> <p>Comparative analyses of project participation show that the carried out by private compan</p> <p>On the other hand, the contra governments or state entities private tender offers, takes low costs means that the municipal themselves will not have any being described are realistic. costs are high, even if the cost the traditional methods of bid which reduce the amount available project. Overall, the methodology eliminate many of these problems.</p>
<b>Function of participation</b>	<b>Objective of participation</b>	<b>How communities participate</b>	<b>Modalities and results of participation</b>
		During the various phases of project execution, the financial contribution can be collected in various ways: quotas can be set for each house (depending on how close the house is to the improvement). Neither the municipal government nor PRODEL intervenes in this process. The community also solicits funds and contributions from private companies and non-governmental organizations located in the neighbourhood.	

Conclusion of the project	Development of local capabilities, transparency and accountability in the use of outside resources	<p>The committee and other members of the community participate in the conclusion of the project by preparing an inventory of items in the storage depot and comparing their records with the municipal government's purchase receipts. In some cases, they also attend the physical and financial audit conducted by PRODEL with the municipal government, and participate in the verification of the work performed. The committee and other members of the community participate in the evaluation of the project, analyzing the experience, the degree of community organization and participation achieved, and the quality of the project. Other needs are identified during this process which are less closely linked to the project (eg. pipelines to the constructed sewer so that it works better, containment walls, additional works, street lighting projects etc., which have to do with the functional aspects of the project). In many cases, the surplus materials are resold or the money in the municipal government account is used for these additional projects. A budget is prepared. The project is generally inaugurated using resources which come almost exclusively from the community. The community prepares publicity, organizes, collects and paints.</p>	<p>Community control is exercised through the administration, whereby the quality of the materials. What is considered as purchased. In material left over because the budgeted for more than is required, they renegotiate the use of this surplus.</p> <p>The experience of preventive maintenance already had repercussions on other projects as those sponsored by the Emancipation Movement. Obviously, the communities are more active for water, sewage and electricity for schools, streets, health centres.</p> <p>Some of the bottlenecks relate to the implementation of a project. On the one hand, participation of families. Often depends on the attitude displayed by the representative. If he is not sufficiently motivated, he will not buy into the project. There are also cases where the municipal government would like it to act. Sometimes in some neighbourhoods regarding price, well as the formation of the committee of families in each neighbourhood and who can represent obstacles.</p>
Function of participation	Objective of participation	How communities participate	Modalities and results of participation
Operation and preventive maintenance of the services	Improving the services and making the projects sustainable	<p>The community participates in the preventive maintenance activities. It is supported in this activity by SILAIS, in order to: perform diagnostic studies of neighbourhood sanitation; define actions and hold "cleanup campaigns" to remove waste; undertake epidemiological investigations of each household; give training in the operation of toilets and sewage; hold informal community meetings on maintaining a healthy household.</p> <p>The committees participate with the electricity and water utility companies in these programmes to identify community contributions, negotiate the connection of families to the utility, and to maintain control over who is connected and who pays.</p>	<p>The project leaves behind a legacy, it acts, apply pressure and negotiate to ensure that the community is active in the following year. The community quality of the project and the results are expressed in the micro-planning accordingly.</p>

ANNEX 2: Comparison between Levels of Poverty in Cities served by PRODEL and Managua, Nicaragua, and Cities in El Salvador

City	Chronic poverty (a)	Recent poverty (b)	Borderline poor (c)	Non-poor (d)
León and Chinandega	58.9	13.0	16.3	11.9
Ocotal, Somoto and Estelí	60.3	11.6	19.4	8.6
Managua	40.4	14.1	17.4	28.2
Nicaragua	53.9	12.4	17.1	16.5
El Salvador	24.1	19.0	12.2	44.7

Notes: (a) Households with more than one basic need unfulfilled and with incomes below the cost of a basic basket of food. These households have been in poverty for an extended period of time.

(b) Households with incomes between the cost of one and two basic baskets of food but which are not critically lacking any basic necessities. They may be families which have experienced a recent deterioration in income.

(c) Households with income which is higher than the cost of two basic baskets of food but with one or more basic needs unfulfilled. These households have achieved a very fragile economic stability. A slight increase in their income will bring little improvement to their situation but a slight decrease would cause them to be re-classified as poor households.

(d) Households with incomes that exceed the cost of two baskets of food and with no basic needs unfulfilled.

SOURCE: Based on PRODEL (1997), "Documento de proyecto para la segunda fase" (Phase 2 project document) and on Martínez Vega, Thelma and Joris Ghysels (1995), "El combate contra la pobreza: un factor determinante ante el desarrollo" (Fighting poverty: a determining factor before development), NITLAPAN, UCA, Managua.

**PUBLICATIONS - THE CASE STUDIES AND OTHER BOOKS  
AND PAPERS ON URBAN ISSUES**

**a. The Working Papers series on poverty reduction**

Alimuddin, Salim, Arif Hasan and Asiya Sadiq (2001), *Community Driven Water and Sanitation: The Work of the Anjuman Samaji Behbood and the Larger Faisalabad Context*, IIED Working Paper 7 on Poverty Reduction in Urban Areas, IIED, London.

Baumann, Ted, Joel Bolnick and Diana Mitlin (2001), *The Age of Cities and Organizations of the Urban Poor: The Work of the South African Homeless People's Federation and the People's Dialogue on Land and Shelter*, IIED Working Paper 2 on Poverty Reduction in Urban Areas, IIED, London.

Dávila, Julio D. (2001), *Urban Poverty Reduction Experiences in Cali, Colombia: Lessons from the Work of Local Non-profit Organizations*, IIED Working Paper 4 on Poverty Reduction in Urban Areas, IIED, London (available September 2001).

Díaz, Andrés Cabanas, Emma Grant, Paula Irene del Cid Vargas and Verónica Sajbin Velásquez (2001), *El Mezquitil - A Community's Struggle for Development*, IIED Working Paper 1 on Poverty Reduction in Urban Areas, IIED, London.

Patel, Sheela and Diana Mitlin (2001), *The Work of SPARC and its Partners Mahila Milan and the National Slum Dwellers Federation in India*, IIED Working Paper 5 on Urban Poverty Reduction, IIED, London.

Schusterman, Ricardo, Florencia Almansi, Ana Hardoy, Cecilia Monti and Gastón Urquiza (2001), *Poverty Reduction in Action: Participatory Planning in San Fernando, Buenos Aires*, IIED Working Paper 6 on Poverty Reduction in Urban Areas, IIED, London.

Stein, Alfredo (2001), *Participation and Sustainability in Social Projects: the Experience of the Local Development Programme (PRODEL) in Nicaragua*, IIED Working Paper 3 on Poverty Reduction in Urban Areas, IIED, London.

Towards the end of 2001, three other case studies will be published:

- *The Children's Council and Other Innovations in Barra Mansa, Brazil*
- *The work of Development Workshop in Luanda, Angola*
- *Lessons of Experience From CARE PROSPECT's Urban Poverty Reduction Programmes in Lusaka, Zambia*

HOW TO OBTAIN THESE: Printed versions can be obtained from <http://www.earthprint.com/> for US\$9 each plus postage and packing (for the UK \$5 for first item, \$2.50 for additional items; for Europe \$6 for first item, \$3 for additional items; for elsewhere \$10 for first item, \$5 for additional items).

Electronic versions may be obtained at no charge from IIED's web-page: [www.iied.org](http://www.iied.org). If you have any difficulties obtaining these, e-mail us on [humans@iied.org](mailto:humans@iied.org) with details as to which working paper you want.

**b. Other publications from this research programme**

Satterthwaite, David (2001), *Reducing Urban Poverty; Some Lessons from Experience*, University of

Birmingham, Birmingham.

This will be available from August 2001 for £10 from the Publications Office, School of Public Policy, University of Birmingham, Birmingham B15 2TT, UK, e-mail: C.A.Fowler@bham.ac.uk  
The paper may also be viewed on <http://www.bham.ac.uk/idd/activities/urban/urbgov.htm>

Shorter versions of the working papers on PRODEL and on El Mezquital have been published in IIED's journal *Environment and Urbanization*:

Stein, Alfredo (2001), "Participation and sustainability in social projects: the experience of the Local Development Programme (PRODEL) in Nicaragua", *Environment and Urbanization* Vol 13 No 1, pages 11-35.

Díaz, Andrés Cabanas, Emma Grant, Paula Irene del Cid Vargas and Verónica Sajbin Velásquez (2001), "The role of external agencies in the development of El Mezquital in Guatemala City", *Environment and Urbanization* Vol. 13, No. 1, pages 91-100.

Díaz, Andrés Cabanas, Emma Grant, Paula Irene del Cid Vargas and Verónica Sajbin Velásquez (2000), "El Mezquital - a community's struggle for development in Guatemala City", *Environment and Urbanization* Vol. 12, No. 1, pages 87-106.

HOW TO OBTAIN THESE: These papers may be obtained electronically from the web at [www.catchword.com](http://www.catchword.com); <http://www.catchword.com/titles/09562478.htm> takes you straight to *Environment and Urbanization On-line*. Access to the paper in the April 2000 issue is free; access to the two papers in the April 2001 issue costs \$6 each.

### c. Other publications on urban poverty

**Rethinking Aid to Urban Poverty Reduction: Lessons for Donors:** The April 2001 issue of *Environment and Urbanization* includes evaluations of urban projects or programmes funded by US AID, the World Bank, DFID, Sida, NORAD and UNICEF, along with papers considering the constraints on donor effectiveness. There are also papers on participatory budgeting in Brazil, a fund for community initiatives in Uganda, poverty mapping in Argentina, mapping infrastructure deficiencies in Salvador, community-based watershed management and links between poverty and transport.

**Poverty Reduction and Urban Governance:** The April 2000 issue of *Environment and Urbanization* includes 12 papers examining the links between poverty and governance in particular cities. Among the interesting points of commonality or contrast are: the great range of political structures, with some having governments that are clearly more accountable and responsive to urban poor group than others; the very limited powers, resources and capacities to raise revenues available to urban governments; the complex political economy within all the cities which influences who gets land for housing, infrastructure and services; and the capacity of anti-poor local government policies and practices to harm the livelihoods of many low-income groups within their jurisdiction.

HOW TO OBTAIN THESE: The printed version of these two issues can be obtained from <http://www.earthprint.com/> for US\$18 plus postage and packing (for the UK \$5 for first item, \$2.50 for additional items; for Europe \$6 for first item, \$3 for additional items; for elsewhere \$10 for first item, \$5 for additional items).

The papers from both issues may be obtained electronically from the web at [www.catchword.com](http://www.catchword.com); <http://www.catchword.com/titles/09562478.htm> takes you straight to *Environment and Urbanization On-line*. Access to the papers in the April 2000 issue is free. Access to individual papers in the April 2001 issue costs \$6 each (or \$30 for the whole issue). See also the later section on *Environment and Urbanization* for details of subscription prices.

**Urban Governance, Partnerships and Poverty:** A research programme undertaken by the University of Birmingham, IIED, The London School of Economics and Cardiff University in collaboration with teams in ten cities in the South has produced a great range of theme papers, case studies, cross-city analyses and other studies - see <http://www.bham.ac.uk/idd/activities/urban/urbgov.htm> for more details.

#### **d. Urban publications with Earthscan**

McGranahan, Gordon, Pedro Jacobi, Jacob Songsore, Charles Surjadi and Marianne Kjellén (2001), *The Citizens at Risk: From Urban Sanitation to Sustainable Cities*, Earthscan Publications, London, 200 pages.

Hardoy, Jorge E., Diana Mitlin and David Satterthwaite (2001), *Environmental Problems in an Urbanizing World: Finding Solutions for Cities in Africa, Asia and Latin America*, Earthscan Publications, London, 470 pages.

Bartlett, Sheridan, Roger Hart, David Satterthwaite, Ximena de la Barra and Alfredo Missair (1999), *Cities for Children: Children's Rights, Poverty and Urban Management*, Earthscan, London, 305 pages.

Satterthwaite, David (editor) (1999), *The Earthscan Reader in Sustainable Cities*, Earthscan Publications, London, 472 pages.

Satterthwaite, David, Roger Hart, Caren Levy, Diana Mitlin, David Ross, Jac Smit and Carolyn Stephens (1996), *The Environment for Children*, Earthscan Publications and UNICEF, London and New York, 284 pages.

Hardoy, Jorge E. and David Satterthwaite (1989), *Squatter Citizen: Life in the Urban Third World*, Earthscan Publications, London, UK, 388 pages.

**HOW TO OBTAIN THESE:** These are available from Earthscan Publications, 120 Pentonville Road, London N1 9JN, UK; e-mail: [earthinfo@earthscan.co.uk](mailto:earthinfo@earthscan.co.uk); web: [www.earthscan.co.uk](http://www.earthscan.co.uk); also available in bookstores. In USA, they are available from Stylus Publishing LLC, PO Box 605, Herdon, VA 20172, USA, e-mail: [StylusMail@PressWarehouse.com](mailto:StylusMail@PressWarehouse.com). In Canada, they are available from Renouf Publishing Company, 1 - 5369 Canotek Road, Ottawa, Ontario K1J 9J3, Canada, e-mail: [orderdept@renoufbooks.com](mailto:orderdept@renoufbooks.com). The Earthscan web-site also has details of Earthscan representatives and agents in all other countries.

#### **e. Other Working Papers series**

There are three other Working Papers series, in addition to the Series on *Poverty reduction in urban areas*:

1. Working Papers on *Rural Urban Interactions and Livelihood Strategies* with case studies from Tanzania, Mali and Nigeria and briefing papers which will be available after August 2001.
2. Working Papers on *Urban Environmental Action Plans and Local Agenda 21s* with case studies from Colombia, Ghana, Indonesia, Malaysia, Namibia, Peru, Senegal, South Africa, Uganda and the UK.
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