

Local Development Programme in Nicaragua

PRODEL

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**Department for
Infrastructure and
Economic Cooperation**

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

ABBREVIATIONS

SECTION	page
1 INTRODUCTION	1
1.1 General Aspects	1
1.2 Methodology	1
1.3 Structure of the Report	1
1.4 Acknowledgements	2
2 CONTEXT AND PROGRAMME OBJECTIVES	3
2.1 Context	3
2.2 The Actors and the Activities	4
3 INFRASTRUCTURE COMPONENT	7
3.1 Achievements	7
3.2 Results	7
3.3 Recommendations	14
4 HOUSING IMPROVEMENT COMPONENT	16
4.1 Achievements	16
4.2 Results	16
4.2.1 Housing Finance	17
4.2.2 Technical Assistance	22
4.3 Recommendations	28
5 THE MICROENTERPRISE COMPONENT	30
5.1 Achievements	30
5.2 Results	30
5.2.1 Financial Services For Microenterprises	31
5.2.2 Technical Assistance and Training	34
5.3 Recommendations	35
6 SUSTAINABILITY OF REVOLVING FUNDS	38
6.1 Achievements	38
6.2 Results	38
6.3 Recommendations	47
7 PRODEL's MANAGERIAL ORGANISATION	60
7.1 Achievements	50
7.2 Results	50
7.3 Recommendations	53
8 RECOMMENDATIONS ON THE FUTURE OF PRODEL	66
8.1 Full settlement of the first phase	56
8.1.1 Amending current weaknesses	57
8.1.2 Minimising risks	59
8.1.3 Orderly closure	59

8.2	Second phase	61
8.2.1	Prerequisites	61
8.2.2	Legal and Institutional Framework	63
8.2.3	Investment components	65
8.2.4	Sustainability	66
8.2.5	Replicability	67
8.2.6	External Assistance	68
8.2.7	Financial Resources	68
8.3	Time Schedule	69

ANNEXES

1.	Housing Credit Lines	72
2.	Report on housing improvement in Estelí and Somoto	74
3.	Tables on PRODEL's financial sustainability	82

APPENDICES

1. Terms of Reference
2. Mission Programme
3. Bibliography

EXECUTIVE SUMMARY

This report presents the findings and recommendations of the external evaluation of the first phase of the local development programme, PRODEL, in Nicaragua. The main objectives were:

- to assess PRODEL's impact and efficiency in accomplishing the programme's general and specific goals;
- to make recommendations on the future of the Programme in terms of its operational, institutional and financial sustainability.

Our overall impressions of the Programme are positive. Achievements by PRODEL are very encouraging. Amidst extremely difficult conditions, PRODEL has created innovative working institutional arrangements which contribute to the development of local and municipal capabilities. Beneficiaries of PRODEL's credit schemes as well as its infrastructure component are amongst the poorest in Nicaragua. The programme has been particularly successful in reaching women. PRODEL's model however is far from consolidated. The housing component is still weak and the technical assistance is of poor quality. Community participation has as yet no coherent strategy to deal with the operation and maintenance of the infrastructure. PRODEL's local level co-ordination is also weak. No management information system (MIS) is in place which is necessary for the consolidation of the programme's operations. Finally PRODEL has yet to develop a long term financial strategy for the sustainable operation of its revolving funds.

Our main recommendations to SIDA are the following:

- to continue giving strong support to PRODEL
- to request an immediate start on the process for the design of PRODEL's second phase
- to request PRODEL's Executive Unit
 - I. to develop a coherent and participatory strategy for technical assistance in the housing component.
 - II. to develop a long term financial planning system to optimise the revolving funds
 - III. to substantially improve its management and organisation based on the guidelines of this evaluation
- to condition a second phase of the Programme to satisfactory progress in the fulfilment of the actions proposed in this evaluation

ABBREVIATIONS AND ACRONYMS

BP	Popular Credit Bank
ESIF	Emergency Social Investment Fund
FIDEG	International Foundation for Global Economic Challenge
IDB	Interamerican Development Bank
INATEC	Nicaraguan Institute for Technical Assistance and Training
INIFOM	Nicaraguan Municipal Development Institute
PEU	Executive Programme Unit
PRODEL	Local Development Programme
PROSILAIS	Local Health Systems Programme
SIDA	Swedish International Development Agency
MIS	Management Information System
TEU	Municipal Technical Unit
WB	World Bank

SECTION 1. INTRODUCTION

1.1 General Aspects

This is the report of an in-depth review of INIFOM-SIDA's Local Development Programme, PRODEL. The main objective of the evaluation is to measure the degree to which the Programme has achieved its goals effectively and efficiently, and to make recommendations on the future of the Programme in terms of its operational, institutional and financial sustainability.

1.2 Methodology

The current evaluation was carried out by a team of two consultants: Irene Vance, the team leader, and Jorge Vargas, both selected by SIDA in consultation with INIFOM. It was carried out between 13-31st of May, 1996. (see Terms of reference, in Appendix 1).

PEU and SIDA's consultant to PRODEL prepared a detailed itinerary, which was subsequently modified as the work progressed. During the mission interviews were held with SIDA, INIFOM, BP, PEU and SIDA's consultant to PRODEL as well as with officials from a number of national institutions. During field trips to the five municipalities where the Programme is operating, the consultants met with the majors, technical teams of the town councils, PRODEL's local co-ordinators as well as many beneficiaries of the three components: infrastructure, housing and microenterprise credits. Upon the consultants request, the field visit was extended to allow additional time for more detailed on site evaluation. A national consultant, Ms. Verónica Mora, was hired to review the results and quality of the housing improvements.

1.3 Structure of the Report

Section 1. presents the principal findings and recommendations; Section 2. offers a brief introduction to the national context and a description of the roles and responsibilities of the main partners in PRODEL. Section 3, 4, 5 analyses the achievements and results in the Infrastructure, Housing and Microenterprise components of the Programme and provides a series of recommendations in the form of specific actions. Section 6. discusses the issue of the sustainability of the revolving funds. Section 7. examines the management and administrative aspects of the Programme. Section 8. proposes a number of recommendations and strategic actions for the future sustainability as well as guidelines and options for a possible second phase together with a calendar which arranges the activities and decisions to be taken in a sequence.

1.4 Acknowledgements

This report is the product of a team effort. Our study could not have been accomplished without the logistic and professional support of both PRODEL's team and SIDA's consultant to PRODEL, Mr. Alfredo Stein. To all those who assisted us, provided an abundance of documents, accompanied us on our field trips and shared their time and experience we wish to express our sincere gratitude.

The views, interpretations and proposal of this evaluation are those of the authors and are not attributed to SIDA, INIFOM or PRODEL.

SECTION 2. CONTEXT AND PROGRAMME OBJECTIVES

2.1 Context

At the beginning of the 90's, which marked the end of the armed conflict, Nicaragua faced enormous political, social and economic problems. Among them a collapsed economy, hyperinflation, political polarisation and a highly vulnerable population affected by displacement, demobilisation and repatriation. A programme of political and economic transformation was initiated. These measures included a drastic reduction in the size and role of the State, moving away from being the provider of services to a facilitating role in social policies. A broad programme of structural adjustment has had a positive effect at the macroeconomic level. For example, the reduction of inflation to 13.4% (1994) the fiscal deficit has been drastically reduced, and the external debt renegotiated. Yet economic reactivation and growth are incipient. In 1990-93 GDP per capita fell by 8%. More recently however, economic conditions appear to be picking up. Figures for 1994 showed that the GDP increased by 3.2%.

Nevertheless, the negative effects of the structural adjustment measures - increased unemployment and underemployment, frozen or declining salaries, reduced access to social services especially health, education and housing are felt most by the poor. Poverty therefore remains a huge challenge. About 70% of Nicaraguans live in poverty, and 40% are in extreme poverty¹. In the five municipalities where PRODEL works almost 34 % of the families live below the poverty line. One of the main constraints to improving conditions are the high levels of unemployment and underemployment. Rates vary from region to region and city to city but globally are estimated at 56%².

Although conditions are worse in rural areas, there is an increase in urban poverty in part due to the influx of families after the war which has put pressure on basic services as well as an immediate proliferation of neighbourhoods which makes additional demands for expansion of new services.

Despite the economic crisis and the political problems which faced the country, the government defined as priority the principles of pacification, reconciliation and democracy. As part of the political reorganisation the regions were abolished in favour of departments in which the municipalities have acquired new importance in the process of decentralisation. Strengthening municipal management, autonomy and a greater role for civic participation are therefore part of the government's agenda for the 1990's. With decentralisation has come increased citizen participation in decision-making.

¹The World Bank Poverty line in 1993 was set at US\$ 490 per year and extreme poverty at 202 US\$.

² Figures from UNDP 1994 poverty study

It is within this context that the Agreement, between the governments of Sweden and Nicaragua was signed in June 1993, for the execution of PRODEL. The Programme arose for two reasons, on the one hand, the interest of both governments to create a programme which could mitigate the negative effects of structural adjustment policies on the poor and vulnerable groups, and on the other, the need to develop a decentralised programme which would support the reconciliation process³.

The aim of the Programme is to improve the living conditions and social development of low-income families especially female-headed households living in marginal neighbourhoods. Women have been particularly hit by the economic crisis both in terms of the marked decrease in social services and in family income. According to data from FIDEG, the social group which has been affected most by unemployment is women and young people; national estimates show of the economically active population those unemployed are 31% women and 42% youth.

2.2 The Actors and the Activities

PRODEL operates in five departmental capital cities:- Estelí, Somoto and Ocotral in the Segovias Region and León and Chinandega in the Occidental Region. These urban centres were not only directly affected by the war, but afterwards they are facing the difficulties associated with rapid population increase due to the influx of repatriated families and demobilised military.

PRODEL's programme combines three activities: i) urban upgrading in marginal neighbourhoods is carried out through the implementation of small urban infrastructure and community services projects; ii) individual housing improvement through access to small loans granted to low-income families, with the capacity to pay; iii) support to microenterprises through short-term loans as well as the creation of new microenterprises, particularly for women.

The strategic goals of the Programme are to support the process of decentralisation, strengthen local authorities, and local democracy through increased civic participation. It is noteworthy that unlike other development programmes, PRODEL does not directly execute the activities itself but rather provides technical assistance, financial and human resources to strengthen existing actors.

PRODEL is an innovative programme in terms of fostering local development by bringing together a number of different actors. PRODEL's activities are largely carried out by the Popular Credit Bank (BP), municipalities as well as low-income communities. It is the only programme where a conventional Bank is lending to low-income families for housing improvements and where the Bank is

³ Page 2 of Project Document.

working closely with municipalities in social programmes. Likewise the three activities - housing, infrastructure and microenterprises together with institutional strengthening tackle a number of the serious problems facing the country.

INIFOM is the government entity legally responsible for the execution, administration and supervision of the Programme. For this purpose a Central Technical Unit for Project Execution (PEU) was created by INIFOM to carry out these duties. This is a small unit made up of four professionals - a National Co-ordinator, two area Co-ordinators and an accountant supported by a secretary and driver, based in Managua. The Programme operates under the standards and procedures set out in manuals prepared by the Unit; these include administrative and financial procedures for the management of the funds as well as guidelines for the implementation of the three components. In each municipality, the central team has a local co-ordinator with the principal task of co-ordinating between actors and reproducing PRODEL's model at the local level.

The (BP) is Nicaragua's smallest public bank. As with the rest of Nicaragua's public banks, it was technically bankrupt in 1992-1995 yet bad debts have been written off and the bank was recapitalized. As of December 1995, its capital was nearly US\$ 1.5 million. The 1996 norms of the Superintendency on the 12.5 to 1 relation of risk assets to capital eliminated BP's ability to grow - its currently ratio is approximately 11.25 (Superintendency 1996: Art. 50). The only way that BP can increase its banking activity is by signing trust funds. PRODEL is its most important client. The mission heard of no intention to close down the Bank or privatise it, at least in the near future.

The BP carries out two main activities for PRODEL. On the one hand, in the infrastructure, administration and technical assistance components, BP provides PRODEL the usual services given to regular clients. On the other hand, PRODEL through a signed Trust Fund manages the housing and microenterprise revolving funds, where BP acts as the fiduciary. The Bank manages PRODEL's housing and microenterprises liquid assets, approves loans, supervises the correct use of the loan, and collects repayments. PRODEL's manuals containing the rules and procedures for lending housing and microenterprises are an annex to the contract.

The municipalities implement the infrastructure component through Technical Executing Units (TEU). These did not exist prior to the Programme and their creation is part of the signed agreement. The Town Council is directly responsible for the administration of funds PRODEL has been instrumental in promoting an inter-institutional approach by encouraging the formation of Municipal Commissions, with representation of each of the actors participating in the execution of the Programme and is presided over by the Mayor.

The municipal commission identifies the barrios based on the selection criteria prepared by PRODEL. It is responsible for broadly defining the activities in each municipality and the annual budget. The priority setting exercise of micro-planning and the budget-balancing exercises has meant that the municipalities have incorporated the budget constraint in their daily operations.

In the case of the infrastructure component the planning of the public works is based on the results of micro-planning exercises carried out with the target population. The beneficiaries participate with the TEU, in the needs identification. In addition a Community Commission is formed for organisational aspects; they organise community labour and oversee the use of the funds. Community participation has increased accountability as the community is increasingly involved in, and committed to, the success of the project and also how the money is used. Further, progressively the Programme has successfully been moving towards greater community participation in the management of the infrastructure projects, especially in the execution stage, although the post project management of maintenance is still incipient. However, it should be highlighted that one of the most important features of PRODEL's model is the search for increased decision-making and new forms of participation of the beneficiaries.

Despite the number of actors, the organisation of the Programme is simple, which keeps it cost effective and in spite of initial difficulties, PRODEL has succeeded in achieving a surprising degree of compliance to the Programme's norms and procedures. As a result there is a clear working division of roles and responsibilities among these institutions.

SECTION 3. INFRASTRUCTURE COMPONENT

Terms of Reference

Verify the degree to which physical, social and financial goals have been met especially in relation to: implementation time and programmed budgets, the combination of simultaneous execution of the three components

"Verify ...the quality of the infrastructure and community services projects (2-3)

"Assess the degree of community participation in the design and implementation of projects (3)

3.1 Achievements

The main achievements in the infrastructure component are:

- The Programme has demonstrated that with relatively small amounts of investment from external sources, together with community and municipal counterparts the poor and vulnerable groups living in marginal barrios can be reached.
- The Programme has successfully mobilised municipal and community counterpart funding both in kind, labour and cash seldom achieved in other programmes.
- Microplanning methodologies have been adopted as the starting point for needs identification which represents a major shift from vertical decision-making by town councils and an important first step in working towards strengthening community participation.
- A set of financial and administrative procedures for the efficient management and control of investments as well as for project design have been introduced in the municipalities. These have been so successful that in some cases the model is being applied by the municipality for the management of all investment programmes.

3.2. Results

The results in infrastructure are very encouraging. In addition to the physical and financial achievements, the Programme is fulfilling its strategic goals: (i) strengthening municipal management and technical capacities. PRODEL's technical assistance has been instrumental in introducing new administrative,

technical and human resource management practices. Underlying principles of accountability and efficiency have increased. Initially, the municipalities faced difficulties in meeting PRODEL's requirement regarding counterpart funding, yet this has encouraged the municipalities to take initiatives to increase their revenue base derived from new user charges, expansion of, or more effective tax collection¹ More systematic and institutionalised management practices are emerging which is a prerequisite for decentralisation. (ii) increased civic participation. PRODEL has pioneered a model in which municipalities are developing increased capacity to work with local populations in needs identification and devise appropriate solutions. The organisation and planning of infrastructure is carried out by the Town Councils' Technical Units together with the beneficiary communities. This has been achieved through the introduction of microplanning.

The microplanning methodology was introduced in 1995 and increasingly has become standard practice in the five municipalities, not only for PRODEL's projects but for all investment programmes.² In general terms the methodology is being used correctly as follows:- a residents' meeting is held to discuss PRODEL's objectives, then between 18 and 25 persons are elected to participate in the microplanning workshop in which needs are identified and prioritised. Consensus is reached on which of these needs can be satisfied by working together with PRODEL and the municipality. The results of the workshop are socialised with the residents in a general meeting. Nevertheless, there are differences in application. The degree to which the methodology is being applied correctly is related to a number of factors:- (i) the extent to which PRODEL's Local Co-ordinator has promoted it within the TEU's in the Town Councils; (ii) differences in interpretation ranging from it being seen simply as a consultation exercise or one of the Programme's obligations. (iii) resistance by some technical staff in recognising the importance of community participation in the planning process; (iv) lack of follow-up of PRODEL's central unit on its proper use.

The methodology must be used correctly if the inherent risk of falsely raising community expectations is to be avoided, that is, the exercise should not generate the idea that the municipality or an external agency can solve all the problems. There is some evidence, for example, in Estelí that the methodology is being distorted, since it would appear that the Town Council has its own interpretation and is using the workshops for the formation of community leaders.³ Thus, the Programme needs to make efforts to clearly define for staff

¹ A good example is Ocotal, taxes previously paid in Managua are now collected and retained locally, likewise a re-organisation of the tax levels in the commercial has meant increased revenue for the municipality

² In 1995 80% of PRODEL's projects and all in 1996 were prepared through microplanning exercises

³ According to information received during our field visits, there has been a large number of training workshops held, yet there is very little documentary evidence of the content, goals, or results obtained.

and partners the meaning and scope of community participation and to reach a consensus on what are the parameters of PRODEL's model. A manual on community participation is one of the expected outputs of the 1996 Operational Plan. This should receive priority, although the issue will not be resolved just by preparing a manual; rather, technical staff need to be sensitised about the importance of community participation within a sustainable development approach. Given that PRODEL's Technical Unit does not have a specialist in this field, resources from the Technical Support Fund should be assigned to contract the services of an experienced consultant in community participation, communication and participatory planning methodologies. The consultant would assist the PEU to develop the contents and participatory methodologies for both the infrastructure and the housing components.

The performance in meeting physical and financial targets is very impressive especially given that the TEU's were newly formed as part of PRODEL, implementation began in late 1994 and the Town Councils went through a process of internal reorganisation.

According to the Project Document, the physical target for the three years in the infrastructure component was to construct 64 projects in 40 neighbourhoods with a total investment of US\$1.66 million. Up to the third trimester of 1996, 78% of this sum had been spent on 138 projects, as compared to 64 foreseen in the Project Document. It is also noteworthy that results have been consistent each year, with up to 90-95% of programmed targets reached as shown in the following chart.

Results - Infrastructure Component

Municipality	Prog. 3 yrs	1994			1995			Jan-Mar, 1996			Accumulated-Result
		Prog.	Real	% Performance.	Prog.	Real	% Performance.	Prog.	Real	% Performance.	
León	16	18	15	83%	16	15	94%	4	1	25%	31
Chinandega	16	15	15	100%	19	19	100%	6	7	117%	41
Estelí	16	10	11	100%	16	11	69%	6	3	50%	25
Somoto	8	11	12	109%	8	7	88%	5	1	20%	20
Ocotal	8	10	8	80%	9	9	100%	5	4	80%	21
Total	64	64	61	95%	68	61	90%	26	16	62%	138

Source: PRODEL, Baseline Document, pp. 28.

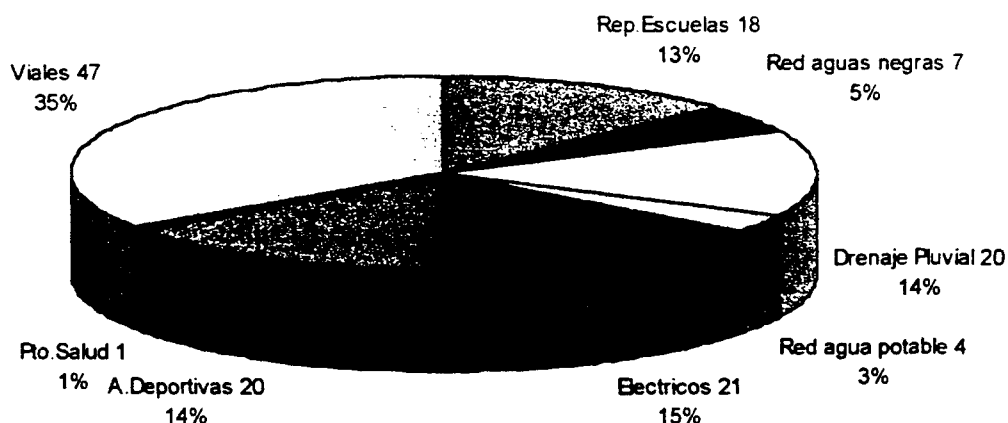
These results demonstrate efficiency not only in the planning and execution of original targets but also show the high standards of monitoring and supervision

achieved by the PEU. The availability and use of resources from the Programme's Support Fund has been an important input to the municipalities given the limited number of technical personnel. This support has been particularly vital for the smaller municipalities at the project preparation stage and have contributed to producing technically sound projects. Evidently, there is an inherent risk that if the municipalities do begin to co-finance the technical studies these efforts will not be sustained in the future.

The 138 projects have benefited 60 neighbourhoods, that is 20 more than was envisaged in the Project Document. Our field visits confirm that PRODEL's criteria for selecting neighbourhoods has ensured that the most impoverished urban areas are being reached, especially those neighbourhoods which have sprung up in the 90's and which virtually lack all basic amenities. Nevertheless, in Somoto and Ocotal where the Programme's coverage includes the town centre, care should be taken to adhere strictly to PRODEL's mandate of prioritising the poorest neighbourhoods so that funds are not used in projects such as rehabilitation of central public parks. The following diagram shows the number and type of projects.

INFRASTRUCTURE AND COMMUNITY SERVICES

Numero y tipo de Proyectos Ejecutados



Source pp. 31, Baseline Document, PRODEL, 1996

The chart shows that a high proportion of the projects are road improvements (street paving, and sidewalks). This is especially the case in Estelí and to a

lesser extent in León. It was difficult for the consultants to gauge if there was so much demand for street paving projects in both places as compared to other needs. Initially we felt that perhaps there was a certain bias and for two reasons: on the one hand, the Town Council may have decided on these since they correspond to the services that municipalities traditionally provide. Likewise, the community may have opted for this choice on the basis that it was more likely that the municipality would be able to deliver this type of project. This was our thinking prior to our field visits, nevertheless, after the visits we concluded that evidently access to neighbourhoods is a serious problem especially after heavy rain, a situation which affects everyone but more so the elderly and the disabled.

Thus, since needs are many and very varied, we would suggest that the approach which we found in Ocotal and Chinandega should be followed. There the range of projects is much broader which helps to ensure that the multiple needs of different groups within the community are met - those of women, youth and children. In our opinion, this approach shows that the municipality and the community are using the results of the microplanning exercise as a basis for progressive neighbourhood upgrading.

The average cost of each project is US\$ 16.000 in which PRODEL's contribution has been 56%, that is 1.7 times less than programmed, while the Town Council have contributed more than expected at around 35%⁴. This is due the fact that the community contribution was less than expected.

Interviews with the PEU's Infrastructure Co-ordinator and the Local Co-ordinators confirm that in the initial stages of the Programme, (1994 and 1995) community participation in the execution of the projects was limited to providing unskilled labour which meant that the work was largely carried out by labourers employed by the Town Council. In addition, community attendance in turning up for work was also sporadic. In part this was due to delays in the schedule or work was halted when the necessary equipment was not available from the Town Council. As a result some of the projects ran over schedule and budget. The community contribution did not exceed 10%. These differences were covered by the municipality.

Modifications to the implementation model have been prepared by the PEU's Infrastructure Co-ordinator and are currently being piloted in Chinandega and Ocotal. The new model is based on skills training for a number of community members through a "learning by doing approach" which aims to guarantee a permanent workforce for the duration of the construction period. Training is carried out by a skilled mason. The community labourers receive a small cash incentive and food contributed by the rest of the beneficiaries. A community

⁴ Source pp. 16 Baseline Document, PRODEL, 1996

member is trained to take responsibility for the management and control of materials.

These changes are positive and for a number of reasons: - (i) It is expected that the overall community contribution will increase from its present level of about 8-10% to 14% which is almost the target originally set by the Programme of 15%; ii) in terms of efficiency, although it is too early to say, it would appear that the work will be completed on schedule; iii) skills training is an important input towards community management in the execution phase. Additionally, the direct management of cash and contributions in kind by the community appears to be enhancing a greater sense of ownership.

In general terms the quality of the infrastructure projects is good with a few notable exceptions.⁵ For example, in the first months some design and building faults were experienced in Estelí and in León there are some problems with road repairs and poor quality work. In this respect, for INIFOM and the Mayors quality as well as quantity should be a overriding principle for measuring Programme results. At present there are no mechanisms or sanctions in cases where projects have gone over schedule or the construction is sub-standard. Reports prepared by PRODEL's Local Co-ordinators should draw attention to technical faults so that corrective measures can be taken, for example, if the reporting were timely it would be possible to withhold disbursement of funds until corrective measures have been taken. Likewise, the Municipal Commission can play an important role by overseeing that projects are of good quality. In addition it is also important that in the final reception and full settlement of projects reports are signed by all parties, thereby confirming that the work has been completed satisfactorily.

Even where quality is good, maintenance is a key issue, as yet the Programme has no strategy in place. The assumption is that the community will take responsibility however, immediate action is needed if post project maintenance is to become operational. From our field visits it is clear that as yet the community has not assumed this responsibility nor has the post-project role and responsibilities of the Community Commission been clearly defined. Priority must be given to setting up mechanisms for maintenance if the sustainability goal is to be achieved. Whatever modality is finally adopted it should be fully operational and firmly in place in the five municipalities by the end of the first phase.

In addition to designing a strategy for maintenance there is a need to include an environmental health education approach to increase the sustained impact of the infrastructure component. Visits to the neighbourhoods show that rubbish is one of the major problem both in terms of the effective use of pluvial drains,

⁵ According to data presented in the baseline document, about 10% of the infrastructure projects are of poor quality or are already showing signs of deterioration due to lack of maintenance.

gullies as well as the related health risks. Deterioration of the streets is in part due to domestic waste and stagnant pools are perfect breeding grounds for vectors. Individual family and civic responsibilities need to be encouraged to achieve their collaboration in working towards a healthier and safer environment. In this respect, co-ordination between PRODEL and another SIDA funded programme, PROSILAIS should be established to explore the possibilities of inter-institutional collaboration.

The main environmental problems are domestic waste, lack of sewerage and potable water and undoubtedly many of the neighbourhoods will need large-scale capital expenditures for the installation of infrastructure. Nevertheless, the consultants feel that meanwhile, PRODEL's projects could have greater impact if environmental health education were combined with simple technical orientation. For example, low-cost options for waste water problems could do much to improve the immediate environment.

It is recommended that the problems associated with solid waste disposal and rubbish collection should be thoroughly discussed with the community to stimulate local and joint solutions between the residents and the municipalities, given that this is a local authority service which often due to lack of resources has low or partial coverage especially in marginal neighbourhoods. With municipal support, the Programme may wish to consider, setting up microenterprises for rubbish collection on a pilot basis. This activity could be sub-contracted out for investigation. Even if the results of such an investigation indicate that there are major constraints to setting up rubbish collection microenterprises it is strongly recommended that the issue of solid waste disposal is a central topic of the community environmental health education.

One of the constraints in operationalizing the training and health education component is the lack of human resources within the municipalities. Only one of the five municipalities, Leon has a full-time social promoter within the Technical Unit working with PRODEL. In Chinandega the social promoter has multiple tasks with less than 50% of his time dedicated to PRODEL's activities and these are limited to promotion of credit for the housing improvements component. Smaller municipalities may not have personnel, however, it should be borne in mind that the signed Agreement stipulates that the TEU's should be made up of three members, one responsible for social aspects. If this requirement were fulfilled much more could be achieved in training and community education.

The Programme should aim to maximise existing community resources. In almost every neighbourhood there are health promoters whose skills could be increased through training. The success of the environment health focus will depend not so much on the allocation of large amounts of funding but on the degree to which the Local Co-ordinators and TEU staff encourage community

action. Rubbish collection, waste water disposal and potable water are key elements for the design of a community action plan.

3.3. Recommendations

The following immediate actions should be taken:

Action # 1. INIFOM/ SIDA should request PEU to prepare an environmental health and training plan for the Programme. Co-ordination with PROSILAIS should be initiated.

Action#2. The PEU with the support of SIDA's external consultant should prepare terms of reference and take the necessary steps to hire a short term consultant in communications, and participatory planning methodologies. The terms of reference could include but not be limited to the following: assist the PEU develop and operationalise community participation in the infrastructure and housing components of its Programme; support the PEU in the preparation of a training plan for project staff and partner institutions; create a set of quantitative and qualitative indicators (mentioned in Action 8 below).

Action# 3. The PEU should request the municipalities to review the composition of the TEU's and to ensure that one of its staff has a background in social and community development. If budget limitations prohibit this the Director of the TEU should select within the present team a person with aptitude in this field and training will provided by the consultant mentioned above.

Action# 4. The PEU should prepare a set of sanctions for application when construction in infrastructure is sub-standard. Among others these could include: (i) suspension of disbursements until corrective measures have been taken (ii) no new projects should be approved if previous ones have repeatedly been poor quality. INIFOM's Regional Representatives should carry out periodic surveillance of projects.

In the short term (no longer than 12 months) the following actions should be taken:

Action # 5. The PEU should design and implement a post-project maintenance strategy, based on the following:

- introduce the discussion on community maintenance at the microplanning stage and include strategies for the preparation of a community plan for maintenance as one of the specific expected results of the microplanning exercise.

- train the Community Commissions how to budget and estimate the cost of routine maintenance for each project.
- Establish a programme of maintenance activities within the overall execution plan according to the characteristics of each infrastructure programme (e.g. routine removal of rubbish from the storm drains and gullies, annual painting and routine repair of school and community buildings).
- Draw up a community contract to be signed by all families specifying the type of contribution (in kind, labour, or cash). Where municipal support is necessary the contract should include clauses indicating the nature of support, e.g. equipment, technical assistance etc.
- the PEU should request the municipalities to explore options for setting up small maintenance funds by assigning a proportion of the community quota during the execution phase to cover maintenance. A feasibility study should be carried out along the following lines: The funds could be used to pay a community labourer (s) to carry out the maintenance activities. Some of those community members trained in the implementation stage could be given additional training. As the programme grows, the possibility of setting up a small enterprise specialised in maintenance, repairs and the provision of technical assistance to the beneficiaries of the housing improvement component could be explored - if there is interest and demand for such services, the company could expand outside of the needs of the Programme by formalised contracts with the municipalities and other services institutions for example (INAA).

Action #6. The PEU should introduce indicators to monitor community participation in project evaluation, these can include, but not necessarily be limited to:

- proficiency of technical skills and know-how acquired
- organisation and administrative capacities
- consistency of community contributions
- rotation of community labourers.

Action # 7. If SIDA approves a second phase, it should instruct PEU to include a proposal for larger scale infrastructure projects (the maximum amount per project would be increased). A pilot project should be carried out in one municipality which has demonstrated good performance to date; based on these results, the new maximum limit for infrastructure projects could be established and included in the Second Phase Project Document.

Section 4. Housing Improvement Component

Terms of Reference

*Verify the quality of the housing improvements...
the impact which the improvements have on the
living conditions of the beneficiary families....
the degree of community participation in the design
and implementation (3)*

4.1. Achievements

The main achievements of the housing component are:

- The Programme has successfully introduced access to housing credit for the low-income within the conventional banking system and proven that the poor are creditworthy.
- Among the target population, the Programme has enhanced individual and family participation by fostering a culture of willingness to pay and cost recovery, breaking with asistentialist and donation-based models which are not replicable.
- The Programme introduced a major shift in strategy for tackling the housing problems in marginal neighbourhoods away from new build solutions to home improvements and upgrading. The results of PRODEL's experience can make an important contribution to the formulation of housing policies in Nicaragua.
- The Programme has increased the municipality's role in the provision of housing in low-income neighbourhoods through the delivery of technical assistance.

4.2 Results

Our analysis of PRODEL's housing component focuses on two activities: housing finance and the quality of housing improvements. The PEU has successfully put together a credit system which is both accessible to low-income families and yet provides for capitalisation of the revolving fund. Nevertheless, the construction aspects of the housing improvements have serious flaws, mainly due to the lack of an adequate strategy for technical assistance. Our main concern relates to the quality of housing improvements being produced. In summary, despite the achievements the housing component is the weakest part of the Programme and requires more attention and immediate changes.

4.2.1 Housing Finance

Access to credit in PRODEL's housing improvement component can be examined from two perspectives. On the one hand, the financial terms and conditions such as interest rates, loan period, etc. which defines the sector which the Programme wishes to reach. On the other, the procedures and the efficiency with which the Bank responds to and meets the demand, which in turn, directly affects the degree of access to credit of the beneficiaries.

PRODEL provides services for poor families, whose incomes oscillate between US\$ 90 and US\$ 420 a month. The aim of the loan programme is to assist the families carry out small-scale upgrading and repairs to their dwellings. Complete data on family income was not available to the consultants however our field visits, partial information from Ocotal and the results of a survey carried out by the PEU, confirms that poor families living in precarious conditions in marginal neighbourhoods are being reached.¹ It is difficult to rule out the possibility that some families from other social groups may have filtered into the Programme, however, we think that this is by no means generalised. There is however a recent shift towards families whose members work in the public sector. Although these are families with low-incomes (a teacher, policeman or nurse earn less than US\$ 100).

In general, PRODEL's terms and conditions of housing finance are adequate for the target population. Even though these are market conditions, PRODEL's credit terms are more favourable than other financing institutions:

- The interest rate (12% on the annual balance plus value maintenance) ensures the capitalisation of the fund and at the same time is much lower than rates offered by the conventional financial system. In Nicaragua those seeking loans for housing improvement purposes, must rely on taking out personal loans since at present there are virtually no financial institutions offering credits for housing.
- The loan term (4 years) is sufficiently long to allow families with incomes near the maximum limit set by the Programme to acquire the maximum loan. In addition it is longer than the terms offered by the conventional financial system for personal loans.
- The required guarantees are flexible (for example documents in custody), and are adapted to the complex properties situation in the country.

Should these finance terms be modified? In our opinion there is no reason to do so. Certainly there is no specific justification for charging 12% as opposed

¹ The majority of PRODEL's beneficiaries fall with the family income bracket of 1.000 -2.000 cordobas (US\$90- US\$ 240, 61.7% in Chinandega, 55% in Somoto and about 77% in Ocotal.

to 9%, or stipulate a loan repayment period of 4 years instead of 5. However within the Nicaraguan context, the present terms are reasonable both for the families and for the Programme.

Undoubtedly a lower interest rate or an extension of the loan term would improve the families' capacity to pay. If a softening of the financial conditions were envisaged, the key variable is the loan term and not the interest rate (see Chart 1 below). This is because we are dealing with small loans on a relatively short repayment period. Taking the same rate of interest and an increase in term from 3 to 4 years reduces the monthly quota by about 30%; in contrast a reduction in the active rate from 12 to 6% reduces the monthly quota by about 9%.

Chart 1
Monthly payment for a US\$ 500 loan at different terms and interest rates
(in US\$)

Interests/Term	3 years	4 years	5 years
6%	15.21	11.74	9.66
9%	15.89	12.44	10.37
12% - present	16.61	13.16	11.12
15%	17.33	13.91	11.89

Although the variation of the interest rate has a relatively small effect on the monthly quota, the active rate is a key variable for the capitalisation of the revolving fund as a whole. The fund operates on the basis of aggregated financial sources made up of many small individual operations. A rate of 12% offers the fund good protection against a moderate rate of delinquency. If PRODEL would stipulate a very low active rate, the fund would be decapitalised even though it had relatively low levels of delinquency. For example, a critical delinquency of 8% (3 or more months in arrears) would cause problems for the fund if the active rate was 6% annually. While the fund is affected, the benefit of lowering the interest rate from 12 to 6% annually for each family is small (approx. US\$ 1.5 per month). Finally, in a finance programme for housing improvements, the principal issue is not the theoretical capacity to pay but the type of improvements that one wishes to finance. PRODEL finances small housing improvements for which large loans are not required.

Value maintenance merits a separate comment. In Nicaragua loans are indexed to the US dollar for monetary devaluation. The Central Bank publishes an index which all entities apply in their operations and which in recent years has been 1% per month (12% annually). In practice this is an implicit interest rate which is charged to the active loan rate. Thus, the 12% annual interest rate on balances is converted to 24% annual interest (12% + 12%) or a 12% real interest rate. Naturally, the incomes of the borrowers are not indexed and the value maintenance represents a burden for them. However this is a rule of the

Nicaraguan financial system which PRODEL should observe. By not doing so, the Programme would be creating artificial financial conditions which would collapse fairly soon after the Swedish co-operation ends. The definition "under market conditions" provides PRODEL certain flexibility in the management of its financial schemes (for example, to charge lower interest rates; choose balances instead of flat rates; or define slightly longer repayment terms) however PRODEL cannot stretch itself to justify ignoring the basic rules of the Nicaraguan financial system.

The term (4 years) is a little below other housing improvement programmes in Latin America which usually oscillate between 5 - 8 years. However in Nicaragua where there is much macroeconomic uncertainty and financial investments are short term (1 year or less), 4 years in fact is a considerable amount of time, not exempt from risk. So a reduction in the monthly quota for an increase in the loan repayment period from 4 to 5 years (19.3% average) is less than the increase for example, of three to four years (27.5% average). The effect of loan term on the quota loses importance in as much as time increases. The aggregate effect on the revolving fund could be very important because the speed of turnover of the financial assets would decrease noticeably and with this, the number of credits which the fund can finance over the long term. This problem is examined in more detail in section 6. In Annex 1 an idea is presented - credit lines - which the PEU could explore as a way to increase the rotation and yields of the housing fund.

The guarantees required by the Programme are somewhat lax. In fact the programme does not demand real guarantees as a requirement for granting a loan. This obviously implies a greater risk in the case of loans that fall under the legal recovery process but on the other hand, if PRODEL demanded real guarantees, the majority of the target population would not be able to participate in the Programme. Not only do these guarantees increase the costs of formalising and closing a loan (these must be formally constituted) but also in Nicaragua the property situation is very confused. An analysis of this situation is beyond our terms of reference. However, it is suffice to say that the large majority of urban plots are not registered in the *folio real* of the Property Registry. The families have different types of documentation, for example, a *solvencia* from the Territorial Office (OOT), or certificates (*constancias*) from the Town Council. PRODEL does not insist upon land registration but a document authorised by a public institution testifying land use rights of the plot. In our opinion, this flexibility on guarantees is fundamental for the housing improvements loan programme.

Given the weaknesses of the guarantees, in some cities such as León and Chinandega, the BP prefers to give loans to salaried families from the public sector, for example health workers, police, etc. and thereby ensure the repayment of the loan through the automatic deduction from their pay cheque.

The Executive Director of the BP requested the consultants to consider limiting the credit to salaried families so that the above mentioned method of repayment could be formalised. Certainly, this would substantially reduce the risk to the Programme and greatly simplify the work of the BP and would increase the loan portfolio and its income rapidly. However, this would be at a high social cost. It would exclude the large majority of the Programme's target group. One of the reasons for creating PRODEL was to establish financial instruments to attend to the needs of the poor, the majority of whom are found within the informal sector. There is absolutely no reason to abandon this objective thus we do not agree that it would be correct to adopt the bank's suggestion mentioned above. The PEU should continue to target low-income groups both in the formal and informal sector.

The bank's lack of experience in housing credit is one of the key factors in understanding the problems which it faces in the housing component². Good credit analysis and efficient cost recovery management are especially important when guarantees are weak. Our field visits show generally that the BP must improve in both these areas particularly in León and Estelí. This lack of experience manifests itself both in the credit analysis as well as cost recovery. With regard to the first, the PEU developed a very useful model to analyse the clients capacity to pay³. This model is used to guide the Bank regarding the loan which families are able to obtain. However, the Bank does not use this to approve credits. The Bank's Credit Committee at the branch offices take their decisions based on gross family income and an analysis of guarantees. Although these are important factors they could be misleading because income is usually very unreliable and guarantees are difficult to execute given the reasons mentioned earlier.

In practice this lack of consistency highlights the need to improve the methodology for analysing credit. Section 6. discusses in greater detail the issue of cost recovery management.

BP's staff do not handle basic information on the type of improvements that can be financed. Their analysis is limited to establishing the capacity to pay of potential clients. It is the technicians from the Town Council who prepare the budgets for the construction work based on an a precredit analysis exercise made by the Bank's promoters. This is a pragmatic solution given that Bank staff lack knowledge on technical issues. It is therefore necessary that at least they acquire a minimum understanding about costs and the type of

² Other factors which also affect the bank's performance are related to institutional organisation, the rotation of personnel mentioned in Section 6, where the operational functioning of the administrative contract with the BP is discussed.

³ The model awards points to various socio economic indicators (income, family composition, type of guarantee, employment). The total score affects the hypothetical capacity to pay the loan obtained purely from family income.

improvements so that the precredit analysis is more accurate. Approval of loans where the lending institution is basically unaware of what the client can do with the resources could affect the repayment of the loan.

In spite of these problems, our impression is that the procedures and conditions required by PRODEL do not constraint the beneficiaries access to housing loans. Our selective review of files in the different bank branch offices did not show any significant delays in allocating credits. The procedures are relatively rapid and easily understood by the borrowers.

According to the Project Document, the original goals in housing were to allocate 2,000 credits benefiting low-income groups with the capacity to pay. The following chart shows that progress is satisfactory. During the period corresponding October 1994 to March 1996, PRODEL has achieved an average performance of more than 80% both in terms of financial as well as physical goals.

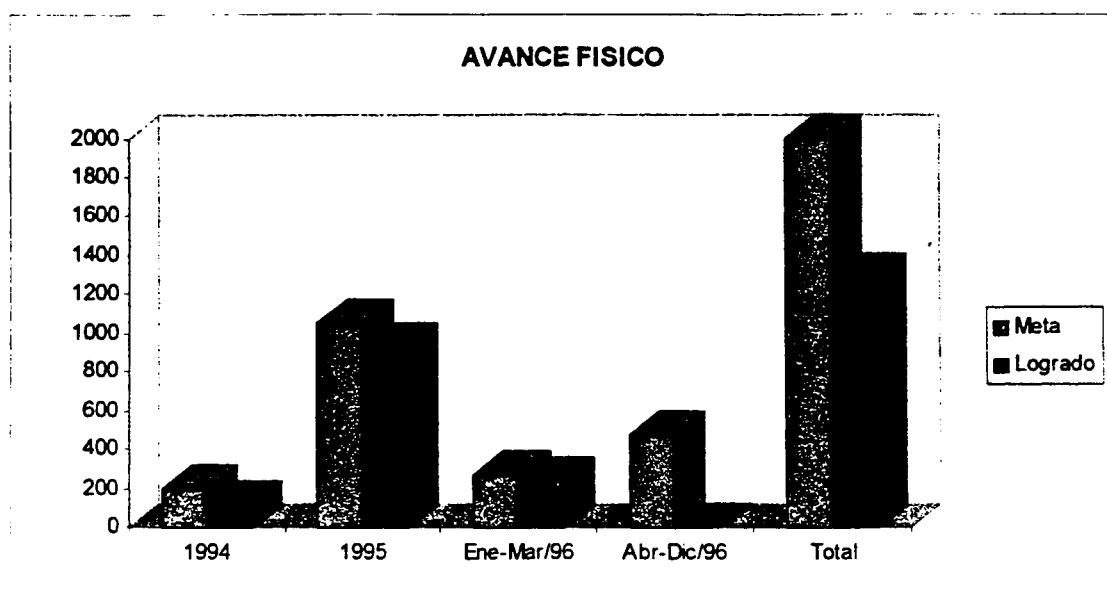
Global Financial Progress Of The Housing Component

Municipality	Prog. 3 years	1994			1995			Jan-Mar, 1996			Accumulated execution
		Prog.	Real	% Performance	Prog.	Real	% Performance	Prog.	Real	% Performance	
León	350,423	28,034	22,533	80.38%	181,877	165,276	90.87%	37,400	24,872	66.50%	212,681
Chinandega	350,423	28,034	2,603	9.28%	181,877	129,403	71.15%	38,004	30,542	80.37%	162,548
Estelí	350,423	28,034	23,694	84.52%	181,877	173,551	95.42%	51,950	48,557	93.47%	245,802
Somoto	175,211	14,017	19,726	140.73%	90,939	78,861	86.72%	25,200	19,528	77.49%	118,115
Ocotlán	175,211	14,017	4,554	32.49%	90,939	88,375	97.18%	25,200	30,952	122.83%	123,881
Total	1,401,691	112,136	73,110		727,509	635,466		177,754	154,451		863,027

SOURCE: PRODEL, Base line document, pp. 62.

Housing activities began in October 1994 two months after the start-up of the microenterprise component. In 18 months, 1,287 credits were granted representing a rate of 71.5 credits per month in the five municipalities, equivalent to an average of 14 credits per municipality.

PHYSICAL PROGRESS OF THE HOUSING COMPONENT



Although the figures show that the original goals have been met, a partial review of the scale of operations in each barrio shows that the number of loans is very low⁴. In León in one barrio during 1994, 5 credits were granted. However since then no further credit activities have taken place. Although it is reasonable during the start-up phase to adopt a strategy whereby the largest possible number of barrios were reached to ensure Programme impact in each city, nevertheless what is the future strategy of the Programme? To continue expanding into new barrios or to increase operations in existing ones? One does not exclude the other, although we consider that consolidation and an increase in coverage in the existing neighbourhoods should take preference. Our field visits show that there is still a large number of dwellings in need of improvement. What is the extent of demand among these families? We suggest that PEU review its promotional strategy in the neighbourhoods and adapt it according to whichever decision is taken with regard to consolidation and/or expansion.

4.2.2 Technical Assistance

The quality of the housing improvements financed by the Programme is poor and requires immediate attention. This concern is based on our field visits as well as the results of twenty site inspections carried out by an architect on behalf of the mission in Estelí and Somoto. Undoubtedly there are many good examples

⁴ In 1994-95 for every 6 persons contacted, one received a loan. According to date from Leon for every ten persons three received a loan.

where the loans have been invested effectively and efficiently, and beneficiaries are satisfied. The architect's report annex . # 2 of this report, highlights some of the main technical deficiencies and offers some recommendations both in terms of design features and construction techniques. The main deficiencies are:

- Low quality of materials. Although PRODEL's Housing Procedures Manual recommends that materials should be purchased from approved distributors to guarantee quality, in reality it would appear that the beneficiaries buy poor materials to get the most for their money. This is a difficult problem for PRODEL to control, since at the end of the day the decisions are made by the family. It is advisable that the technicians provide guidelines on the quality of materials.
- Lack of technical assistance on the correct use building materials, for example, incorrect proportions of cement and sand are very common.
- Lack of proper design and rational distribution of space inside the improved houses. Technicians are also unaware of current building regulations. Since the improvements are made existing on dwellings which have been built haphazardly most often with scrap materials, replacement of these with more solid structures does not always have the expected results. We found examples of:
 - rooms with no windows and poor ventilation;
 - an excessive number of internal walls and narrow corridors;
 - extensive sitting rooms with minimal space for sleeping quarters;
 - low ceilings

There are a number of factors which together have contributed to the weakness of the housing component:

The PEU does not have a full-time staff member in charge of housing. Originally it was envisaged that one person would cover infrastructure and housing, however in practice this has not been possible due to the volume of technical backstopped which is still required for infrastructure.

With the present staffing level it is unlikely that the PEU can cover housing adequately. Given that the infrastructure component is functioning satisfactorily it may be easier to recruit an engineer for infrastructure freeing up the present Infrastructure Co-ordinator to cover the housing component.

Technical assistance is carried out by a member of the TEU. There are notable differences; for example, in Chinandega the technician has only 50% of his time available for PRODEL which severely reduces the attention that can be afforded to each beneficiary both at the precredit as well as in the construction stage. In

other cases, for example in Estelí the technician indicated that lack of transport is a problem hindering the regularity with which site inspections can be carried out. The logistics of providing timely assistance is complicated given that some improvements are carried out very quickly - a roof can be changed or repaired in a day - often the work is completed before the technician has been able to programme a site inspection.

Our field visits confirm that technical assistance is limited; and there is no clear concept of the nature of gradual upgrading of dwellings which is how the target population build their homes. The technical assistance is often reduced to a minimal and mechanical exercise of preparation and agreement on a budget with the beneficiary, verification that the materials have been purchased and the work concluded. A major constraint is the technical staff's lack of experience in working directly with low-income families and in home improvements. This is understandable given that there are few experiences of institutionally supported housing programmes in the country and most of these have been in new construction.

It is essential that every effort is made by the Town Councils to ensure that a full-time person is available to attend exclusively to the activities of PRODEL. We feel strongly that better technical assistance services must be guaranteed and for the following reasons: (i) the housing improvements component and PRODEL's credibility could be jeopardised; (ii) it is unlikely that with the present services PRODEL will be able to cover present demand or; c) expand coverage to other neighbourhoods.

The issue will not be resolved simply by hiring additional staff in the TEU's. The aptitude and attitude of the technician is crucial. The challenge is to involve the family - both men and women - in making informed choices not only on how much construction materials can be purchased with the loan but on specific design issues related to the use and distribution of space. Thus the problem is not the number of inspection visits as such but the degree to which the technician provides timely inputs and advice to avoid technical errors or ill-advised design decisions.

All personnel including Local Co-ordinators, BP's promoters, Directors and staff of the TEU's would benefit enormously from some training on housing improvements, design criteria, as well as broader topics such as the role of the professional in the community and his/her relationship with the beneficiaries. A number of seminars could be arranged with the different parties to review and establish a common definition of the main concepts of the Programme's housing component. This is necessary because PRODEL has two stated goals; on the one hand to meet a social need which aims to improve the living conditions of the poor and a financial one which is to set up a sustainable revolving fund; both

goals are not incompatible but require each of the actors to consciously work towards both these objectives.

In our interviews with the beneficiary families the most common complaint was that the loan granted by the bank does not cover all the improvement costs. In most cases the family tops up the amount with their own resources to complete the improvements. Family contributions is not the problem as such unless the amount invested stretches the household income beyond its limits. Additionally, when the construction is unfinished there is a sense of frustration and given that the majority of the beneficiaries are in the first year of repayment this frustration of being unable to finish the improvements could negatively affect their willingness to pay. There is some evidence that this is the case in Estelí and León although the number of cases are few.

At present in the precredit talks the relation between capacity to pay and the improvements is not made. In part this may be due to the fact that the BP views credit as a product - that is - the number of credits granted is the most important criteria. Likewise, at present the Bank's supervision is limited to checking that the list of construction materials has been purchased. We recommend that the Bank supervision should focus on the number of completed improvements (bathrooms installed, room extensions, etc. Further, in the precredit talks it is necessary to clarify what can be financed by the loan and how much additional resources the family is able and willing to invest. In our field visits we had difficulty distinguishing those houses that had been upgraded with PRODEL's loans from the neighbouring houses from equally poor families who built them with their own resources. In these cases, we have doubts as to whether the credit and technical assistance have made an impact or visible difference in the households' living conditions

The consultants suggests that technical assistance firmly takes into account the incremental and progressive manner in which low-income families build their houses. The calculations and budget exercise carried out in the precredit talks should not be limited to what will be funded by the first loan but rather a detailed investment plan should be prepared which can be implemented as and when new resources become available. Taking out a loan therefore should not be seen as the end goal but the start of an orderly and gradual upgrading over time.

Additionally, at the precredit and planning stage it is vital that the technician introduces the links between housing and health in the guidance and orientation with the families, thereby shifting the focus of the technical assistance away from purely physical and technical issues. In our visits to the neighbourhoods the immediate environment - the patio - and the use and distribution of space arguably present more risks and threats to family well-being than the precarious structures of plastic, wood and, carton etc. We feel that in some cases the point of departure, prior to considering allocating a loan, should be a re-organisation

of space using existing materials instead of building solid walls around a very high risk environment in health and hygiene terms.

Participatory technical assistance involving the families should be used in the housing component. The microplanning methods (used in the infrastructure component) could be adapted to identify the beneficiaries' felt needs and expectations. Thus needs identification would begin with an analysis of the existing dwelling both in terms of structural deficiencies and design elements. The technician should encourage and stimulate full discussion on the following elements:

- a rational use and distribution of space both within the dwelling and the plot.
- encourage an increase in the number of spaces and quality of the area designated as sleeping quarters.
- focus on re-organisation of the kitchen, using the existing materials if necessary if replacement is not possible, including advice on improved stoves and safer handling of water and food.
- emphasise the importance of windows and good ventilation.
- indicate the advantages of health protection afforded by tiling the floor.
- encourage the family to take actions to deal with domestic waste-water, rubbish accumulated in the patio and repair of leaking taps.

We are aware that some the above topics are delicate issues which have to do with cultural patterns and personal choice. A scale model or photographs can be used to initiate and facilitate discussions. A number of family members should take an active part in the participatory planning exercise including youth and children since they are good change agents in adopting new habits and hygiene practices in the home.

The specific products of the participatory planning exercise should be an incremental upgrading investment plan consisting of:

- a simple free hand drawing as well as an architectural plan of each type of improvement action;
- a clear breakdown and cost estimate of each stage of improvements.
- a detailed calculation of costs for the first stage for which the loan is granted.
- a budget which shows clearly the amount of family resources being invested
- a card to register these additional family contributions which should be filled in when purchases are made.

- details of the construction choice: family labour, self-build or hired labour and where necessary include a training schedule
- timetable for implementation;
- written agreement that the family will undertake qualitative improvements: install filters to control wastewater disposal, etc. which have been discussed and agreed upon with the technician.

The technical assistance must be adjusted according to the results of the microplanning exercise. Likewise the advice and supervision need to be tailored to the different type of housing improvements. If the Programme wishes to encourage auto-construction based on family labour then some practical skills training will be required. In any case, all beneficiary families would benefit from more information. A set of common-sense technical tips could be prepared in self-explanatory posters or manuals. The ideas discussed above could be applied to the credit lines explained in Annex 1.

A word of clarification is merited on the preparation of didactic materials. While it is true that many manuals have been produced in Latin America the majority of these are not suitable for the target group - either because they are top-heavy on typed text, illustrations do not adequately convey the messages, or the design and content have been carried out as a desk exercise without the participation of the end users - the beneficiary. In the infrastructure section the consultants recommend that a communications specialist could provide very important inputs in the design of training materials. Some didactic materials could be adapted after field-testing. Further, within the region some examples of participatory technical assistance exist - PRODEL's staff would benefit from exchange visits⁵.

For a second phase, PRODEL should begin to analyse a number of options to scale-up the level of operations in housing. In every community there is an untapped capacity of masons working in the informal construction sector. Additionally, in PRODEL's infrastructure component men and women are being training in building skills. Some of these skilled masons could receive additional training to carry out the promotion and supervision of small housing improvements. This option may be the most appropriate if in the future technical assistance is to be charged to the beneficiary. Employing community supervisors or community promoters could allow coverage to be increased and at social costs. This option should be studied. Further, different options should

⁵ The technical team would benefit from getting to know first hand the field methodology of CEPRODEL (specially the work of the field architect); an exchange visit with HABITAR, Managua, in particular to see how they link processes of legalisation and upgrading. In addition to get to know the work of PRO HABITAT's team in Tarija, Bolivia would be useful in three specific aspects, participatory design, preparation of didactic materials involving the community and housing improvements using adobe. Other exchanges could include Foundation Carvajal Colombia, COPEVI, Mexico and other institutions known to SIDA's external consultant to PRODEL.

be studied with the BP for example,; the Bank could charge a percentage to be included in the loan, or alternatively a sum could be deducted from the quotas which could to be transferred to the municipality for the hire of community promoters without including them in the municipality's permanent staff. Whatever modality is adopted the municipality will still have overall responsibility for technical assistance since they are responsible for approving all new construction.

An alternative option is to engage an NGO. This is not recommended and for the following reasons: a) the addition of another institution would complicate the delivery of services and result in a cumbersome set of institutional arrangements; b) the objective of PRODEL is to build capacities within the municipality and community. Although the process of training community supervisors/promoters may initially take longer this approach is likely to be more sustainable and effective.

4.3. Recommendations

The PEU should concentrate on improving the quality of housing improvements instead of rapidly increasing the housing portfolio. The PEU could consider the range of options described above. The recommendations in housing credit services are set out in Chapter 6 where a detailed analysis of the role of BP as financial administrator of the credit components is discussed.

In the immediate term the following actions should be taken:

Action # 1. PEU, with the assistance of SIDA's consultant, should take the necessary steps so that the present co-ordinator of the infrastructure component should develop a strategy, procedures and mechanisms to control the technical assistance in housing. If necessary the PEU should contract a person to take charge of infrastructure and create a housing co-ordination (see also Action # 2 in Section 7).

Action # 2. INIFOM and SIDA should request the PEU to carry out a survey similar to the one prepared during the mission to create an inventory of technical deficiencies as well as a photographic catalogue of best practices in upgrading. This is an important tool for promotional and educational work with beneficiaries.

Action # 3. The PEU should carry out training activities with BP staff so that they acquire minimum technical knowledge in housing improvements.

Action # 4. PEU, with the assistance of SIDA's consultant, should identify and arrange for institutional exchange visits on participatory technical design and home improvements. This could include a combination of visits by members of PEU to learn first-hand from other experiences in the region and/or a visiting

advisor who would assist the PEU and the municipalities increase their know-how on participatory technical design, low-cost building techniques and training of trainers.

Action # 5. PEU, with the assistance of SIDA's consultant, should take actions to set up a monitoring and evaluation system with qualitative as well as quantitative indicators to measure performance and impact. Much of the quantitative information is already available in the beneficiary files. (see also Action #3. Section 7).

Action #6. The PEU should revise its coverage of housing credits in each neighbourhood and decide whether to expand operations to new neighbourhoods thereby spreading the impact in existing areas or alternatively leave the spatial distribution open to the general demand of the target group.

Action # 7 PEU, with the assistance of SIDA's consultant, should explore the feasibility of the home improvement credit lines. Recommendations should be presented to SIDA's 1997 appraisal mission referred to in Section 8.1.

SECTION 5. THE MICROENTERPRISE COMPONENT

Terms of Reference

Verify the capacity to improve the conditions for income generation and employment of low income sectors especially female headed households (2)

Identify critical elements which could contribute to improving the management capacity of the different actors involved and the entities which collaborate with PRODEL (INATEC, BP etc. (3-4)

5.1. Achievements

The principal achievements of the microenterprise component are as follows:

- The Programme has created an efficient system for financing microenterprises, especially targeted to poor women.
- The Programme has concentrated in neighbourhoods in the urban periphery, unlike the majority of microenterprise programmes which work in the markets.
- The Programme has reached an important number of microenterprises in the selected neighbourhoods.

5.2. Results

PRODEL's microenterprise component has had a rapid impact; in the first five months of operations from August 1994, 665 credits were granted and for every 2 persons contacted one received a loan. Coverage in each neighbourhood is high. According to an inventory of existing microenterprises the Programme is reaching over 50% of the microenterprises in the neighbourhoods where PRODEL works. Regarding financial targets the aim was to allocate US\$ 1.6 million in five municipalities. Financial performance has been satisfactory - to March 1996, the accumulated global performance was 72% of financial goals, that is, funds including transfers, and 115.59% in terms of absolute number of credits allocated. (see annex 9. of Baseline Document, 1996). Over the three years, 74% of the beneficiaries are women which confirms that PRODEL is accomplishing one of its main strategic goals. Women are especially vulnerable to changes in the economy, therefore access to credit has strengthened women's productive assets. The programme's territorial approach, working directly in the neighbourhoods has been particularly

supportive of women who work in home-based enterprises - by recognising her productive and reproductive roles.

However, unlike the housing improvement component, in which there is virtually no previous experience in Nicaragua, microenterprise financing is widespread. Today a relatively wide range and growing number of non-government organisations and commercial banks offer loans for microenterprises in urban and rural areas.¹ Thus, PRODEL faces strong competition in the larger urban centres - León, Chinandega and Estelí. PRODEL's credit services are similar to most of these other programmes, lending at market rates and offers a combination of credit, technical assistance and training.

Our analysis of this component focuses on two activities: the financial services for existing microenterprises and the technical assistance services and training for the creation of new microenterprises. With the exception of the support to new enterprises, in general the component does not have any major problems.

5.2.1 Financial Services for Microenterprises

PRODEL's financial conditions (interest rate, loan term and guarantees) are similar to other programmes in Nicaragua. Since these are short term loans for the informal sector (no longer than six months), the Programme charges high interest rates. PRODEL rates are 2% to 3% flat for working capital, according to the sector activity, and 16% on balances for the purchase of fixed assets, plus value maintenance, which represent an additional 1%. 'Flat' means that the interest is calculated on the original amount and not on the balance. Thus the effective interest rate, calculated on balances is higher. In addition, PRODEL usually requires pawned guarantees (*garantías prendarias*), although in loans for fixed assets or improvements to the business premises custody of the property deeds is required. The loans are repaid on a weekly or bi-weekly basis. These conditions are in line with international experiences in finance for the informal sector.

The interest rate charged by PRODEL is significantly lower than the formal lending sector, where rates are above 8% flat. Financial systems such as PRODEL provide microenterprises with capital under more favourable conditions. In our meetings with beneficiaries this was frequently mentioned as one of the merits of the Programme.

The differences between PRODEL and other programmes operating in the five cities are few, but nonetheless important. Increased competition however might mean that these differences could change in the near future. To date, in our evaluation (May 1996) the most important are as follows:

¹ Interview with F. Soto, PAMIC

- The BP does not charge the beneficiary the opening and closing costs which are subsidised by PRODEL. This was mentioned as one of the advantages of PRODEL.
- The BP requires obligatory savings (Clause 6.8 of the Operational Rules for the Rotating Funds). A portion of the quota is assigned to personal savings which accrues interest. Since it is not a visible savings, there are a number of restrictions on the withdrawal of funds. Only if the beneficiary abandons the Programme will the BP return the total amount of money. In other instances, the client can make partial withdrawals. In practice, the BP views the savings as an additional guarantee to the loan.
- Other programmes offer social benefits (for example, health visits) which PRODEL does not have.

Are the terms of the microenterprise finance system reasonable? We think so. The interest rates and loan term are favourable for the beneficiaries, competitive in the local financial market and highly profitable for PRODEL. The credit limits are reasonable for the majority of microenterprises, except for those which are in rapid expansion. In these cases, the microentrepreneur requires more working capital at the same time as an increase in fixed assets is required. The level of finance required can exceed PRODEL's maximum. The Programme could choose between options: on the one hand, it could develop financial services for microenterprises which are in expansion, or on the other, link these up with other programmes which cater for small and medium-sized businesses. The choice should be based on a study of this type of microenterprise.

Although PRODEL's financial terms are reasonable the PEU should consider periodic adjustment given the strong competition between programmes. Any adjustment should be made with great care and only to ensure that PRODEL remains competitive.

The savings component could be exploited more favourably making it a strong and tangible advantage over other programmes. A number of ideas could be explored such as: improve the interest rates on the savings balances; schemes for using the savings for different purposes, etc. The introduction of social benefits would be more complicated because of the extra operating costs. In fact, FAMA, one of the main NGO's working in microenterprises in Nicaragua is cutting back on some of their social benefits.² Regarding the value maintenance, as mentioned previously in this report, PRODEL should follow the basic rules of the Nicaraguan financial system.

² Interview with Executive Director of FAMA

The BP has ample experience in lending for microenterprises. In fact, BP has its own microenterprise programme known as “*Mi Taller y Mi Programa*”. Bank staff have not encountered any major problems in running the financial services for PRODEL. The Bank’s performance is discussed in detail in Section 6, however we would like to point out that from the point of view of service to the clients, the BP does a very good job. A good indicator of this is the delinquency rate.

In our interviews the microentrepreneurs said that they were satisfied with the bank services. The only exception is the new enterprises which will be discussed later. We also identified three aspects which could be easily resolved by providing more information to the clients.

- The microentrepreneurs are not clear how the bank calculates the interests accrued as shown in the bank receipts.
- The microentrepreneurs are mistaken, or simply lack information about savings. Some think that saving is a Programme requirement and many are unclear about when savings can be withdrawn. Among those who do understand the rules, opinion is divided. Some feel that savings is an advantage, while others complain that they are unable to withdraw at any time to cover unexpected needs.
- The microentrepreneurs are unclear why some clients repayment on a weekly basis and others bi-weekly. Some would prefer to pay monthly.

Which sector benefits from PRODEL? The Programme has been successful in reaching its target group; - 74% of the beneficiaries are low-income women. Although there is no complete data on female-headed households, figures from Chinandega show that 61.7% of the beneficiaries with family incomes between 1.000 - 2.000 córdobas a month (US\$ 120 - US\$ 240), 28% are female heads of household. This indicates that the Programme is achieving one of its strategic goals that of reaching vulnerable groups which otherwise may fall into extreme poverty. Additionally, PRODEL works in the neighbourhoods on the periphery of the cities unlike other microenterprise programmes which operate in town centres, especially in the markets.

According to the results of a survey carried out by PEU (Diagnosis of the Microenterprise Sector: 1996) almost all the loans (90.1%) are for working capital in commercial activities, the majority of which are small shops or stalls. The investment in fixed assets and improvements to business premises is small, around 4.9 and 5% respectively (Idem See Graph No. 6). The same survey shows that the microenterprises do not generate new sources of employment nor is there any significant growth or expansion of business activities.

The expansion and future growth of the microenterprise component could be affected by a number of factors beyond its own control. In the larger cities, León, Chinandega and Estelí there has been a rapid increase in the number of institutions offering loan for microenterprises. This increases the risk of families acquiring multiple loans, overextending their capacity to pay and falling into debt. Likewise, the majority of the loans are for commercial activities and the rapid increase in number of small business - up to three financed by the same programme in the same street in a barrio in Estelí - could force some of these to collapse. The competition from other small commercial establishments and poor sales are frequently mentioned by the beneficiaries as the main problem that they currently face.

5.2.2 Technical Assistance and Training

The technical assistance and training for existing microenterprises is different from those provided for new enterprises. In the case of existing ones, the technical assistance and training is fairly simple and conventional. The BP provides similar training in its own microenterprise programme. An introductory talk provides potential borrowers with information about PRODEL and some basics on how to manage their loans, bookkeeping and some tips on how to run their businesses. Once the loan has been granted, the bank promoter periodically visits the businesses and provides practical advice.

Is there a need to modify the type of technical assistance and training? For the large majority of existing microenterprises, which are extremely small commercial activities, BP's services are sufficient. While the level of sales is so small - between US\$ 300 and US\$ 800 a month - there is no reason to provide any additional services.

Problems arise in those enterprises which are expanding and which require new capital and re-organisation. For them, the present services and technical assistance are inadequate and could be a constraint to their growth. Services presently attend to business with small and relatively stable sales however these are not geared to providing guidance on how to scale up production and commercialisation.

In the new enterprises, a pilot programme was designed for women entrepreneurs which is being carried out through an agreement with INATEC. Women attend a workshop prior to requesting a loan from the Bank and receive follow-up technical assistance from INATEC. PEU and INATEC staff admitted that a number of problems were encountered in the first workshops held in the last trimester of 1995.

Our observations refer mainly to the INATEC's methodology, in particular the timetable and the sequence of activities. For example, the time required for the formation of a new microenterprise, that is, from the introductory talk to the approval of the loan could take up to five or six months, especially if the original investment idea is rejected by the Bank. One of the major limitations for the new microenterprises is that they received their loans in January 1996 just after the peak sales period. The workshops scheduled for 1996 are in danger of beginning too late. The loans need to be available in October or November so that the microentrepreneurs can take the full benefit of the Christmas period.

INATEC is reformulating the contents of their training programme. A summary of the timetable and contents of this proposal are shown in Chart 1. At the time of the mission, the revision had not yet been approved. Our recommendations therefore could be considered for the final version of the new proposal.

Chart No 1

Summary of INATEC's Training Proposal

Description	Time	Contents
Introductory Talk	1 session	• Information about the Programme
Pre-Selection Workshop	5 days	• Presentation of ideas
Main Training Workshop	1st. week	• Gender - 2 days • Legal Issues - 2 days • Bookkeeping - 2 days • Guidelines of Project Formulation 2 days
	2nd & 3rd Week	• Market study
	4th. week	• Finances • Investment Plan • Feasibility analysis
	5th. week	• Preparation of Final Version
Post Workshop Procedures	1 - 4 weeks	• Review of documentation - annexes to the proposal
	4 weeks	• Project Proposal revision by advisers team
+	1 month	• Presentation and approval

Source: Draft Proposal INATEC, 1996

5.3. Recommendations

PEU together with INATEC should concentrate on improving the pilot programme for the creation of new enterprises. With a number of changes, the process of formation of new enterprises and loan approval could be speeded up.

- Action # 1 INATEC, PEU and SIDA's external consultant should discuss the following observations: Bank staff should participate in the preselection workshop to: (i) provide information about the loan terms, type of guarantees and documentation required allowing the beneficiaries more time to prepare these; (ii) provide feedback on project proposals as well as some indication of the likelihood of the bank approving loans for the new business ventures.
- The preselection workshop should focus on guidelines for project formulation and how to carry out a market study. This would mean that market studies could be completed before the main training workshop, as opposed to what occurred in 1995, when the surveys were completed in the second or third week of the main workshop. It would be advisable to use the satisfactory completion of a market study as a prerequisite for entry to the main training workshop.
- We propose that the main activity in the first week of the training workshop would be to concentrate directly on the results of the market studies. It would be useful if the BP participated together with INATEC in the project review. This would help to identify rapidly those projects which are unviable at the outset of the course, instead of prolonging the decision, which causes much more anxiety for the participants.
- The methodology, contents and timetable should differentiate between the needs of each microenterprise; that is, be sufficiently equipped and adaptable to attend to the needs of a completely new initiative which will require special technical assistance and training, or if the initiative is based on skills that the microentrepreneur already has worked on for many years and wishes to convert into a productive activity. Given these diverse needs, it may be necessary to divide the women into a series of small groups to be able to adequately attend to their specific training needs. In some cases participants may be able to conclude the course in less than five weeks.
- Bank and INATEC personnel should participate again in the week scheduled for the final preparation of projects especially to be able to offer practical advice and technical inputs thereby minimising the possibilities of rejection of projects by the Bank.
- The methodology and course structure should cater for the needs of the following categories: a) women who run their business by themselves; b) women who have a male business partner or employees; c) women who work with their husbands. To date the training has been for women only. We recommend that both partners participate in at least part of the course. This could be arranged for the last week of the course by which time women would have had the necessary space and time to develop their own skills.

In the short term (less than 12 months) the following actions should be taken:

Action # 2 The PEU with support from SIDA's external consultant should prepare and maintain an updated inventory of the financial terms and conditions offered by other microenterprise programmes in the urban centres to be able, if necessary, amend those of PRODEL.

Action # 3 The PEU, with support from SIDA's external consultant should carry out a study to define strategies to provide financial, technical and training support to microenterprises undergoing rapid expansion.

SECTION 6. SUSTAINABILITY OF REVOLVING FUNDS

Terms of Reference:

"Analyze the degree of sustainability reached by the Rotating Fund set up with credits for micro-enterprises and housing improvements"(3)

6.1 Achievements

The main achievements of the Programme in the sustainability of the revolving funds are as follows:

- PEU has set up non-conventional credit systems for housing and micro-enterprises and these have a good reputation.
- PEU has achieved that the BP correctly manages the administration of the revolving funds.
- current delinquency rates in the housing and micro-enterprise funds do not threaten the capitalization of the revolving funds. They are low compared to other non-conventional programmes which operate in Nicaragua.

6.2 Results

Up to May 1996, PEU's main actions have concentrated on setting up credible and functioning non-conventional credit systems which enjoy a good reputation among the Programme's target group in both housing improvements and micro-enterprises. This is an important first step in terms of the funds' financial sustainability which depends in the last analysis on the quality of financial services provided to the target population. These issues were discussed in Chapters 4 and 5.

In addition, the PEU has made enormous efforts towards achieving proper management of the revolving fund. This work has been critical in terms of equipping the Programme with the capacity to expand in the future without confronting serious organizational problems or affecting the quality of services to the public. The PEU has made important progress in the administrative management of the revolving funds which has permitted the growth of its operations. This has not been easy because the PEU has had to establish administrative norms and accounting procedures, analysis of credit, recuperation mechanisms, technical assistance and promotion in the BP. BP's Executive

Director admitted to the consulting team that none of the international cooperation programmes with which the bank deals have the level of requirements and supervision as PRODEL and that this has benefited the institutional development of the Bank.

PEU's main actions with regard to administrative practices are as follows:

- PEU has issued clear norms and procedures for the administration of housing and micro-enterprise funds (Operating Rules for the Revolving Fund 1995, Norms and Procedures for the Housing improvement component 1995). This normative framework covers several topics such as financial conditions of the loan, management of liquid assets, evaluation of the Bank's performance, reporting systems, etc.
- PEU maintains a constant field observation over BP's lending activities. However, we found that this supervision is not systematic and varies significantly from place to place. Nonetheless, we think it has been instrumental in solving operational problems and in increasing BP's institutional capabilities at the local level.
- PRODEL's 1995 external audit (Salas 1996a, 1996b) helped to correct serious problems in BP's accounting statements and reports to PEU.

There are some encouraging results. An effective administration of the Programme is reflected in good results of the revolving funds' operations. To March 1996, delinquency rates on PRODEL's loans were not alarming. The combined delinquency rate on both components was 14.2% calculated as the percentage of loans with one or more payments in arrears in loan portfolio. Given PRODEL's institutional, political and social context this is quite an accomplishment. Overall, we are particularly impressed with PRODEL's ability to convince a formal bank to work with non-conventional credit systems and to accept the Programme's inter-institutional coordination model.

However there are some crucial operational problems which require immediate attention¹:

- BP's monthly reports to PEU do not provide a review of key financial variables. For example, it is impossible to determine the portion of the loan portfolio in critical delinquency by component or municipality. Additionally the bank does not submit financial records for the administrative contract for the month just ended and this impedes the preparation of the necessary reconciliations.

¹ These issues were discussed with the Executive Director of the BP in a meeting held on May 27 1996.

- A high turnover in BP's personnel and inadequate allocation of human resources in some of the Bank's branch offices has affected loan portfolio performance especially in León and Estelí, where delinquency is much higher than in Chinandega.
- There is a lack of clarity in the standards and weakness in the procedures related to administrative and judicial charges. Our field visits confirmed that BP's personnel are unsure about how to proceed in cases of PRODEL loans which are in critical delinquency.
- A change in the way BP estimated the value maintenance component in housing loan repayments affected beneficiaries who had commenced payment under another modality. Families who were paying under one modality were suddenly changed to a new scheme. As a result, their monthly quotas increased abruptly. This problem was brought to our attention by BP's Executive Director and was confirmed during our field visits².

The poor quality of PRODEL's technical assistance in housing improvement previously discussed in Section 4, represents a serious threat for the future performance of the loan portfolio. If this problem is not addressed immediately, the delinquency rate could rapidly increase.

In addition, we think that current administrative standards (ref: Operational Rules) for managing the revolving funds have a number of limitations. These could affect the financial results of the funds and in turn long-term sustainability, because they affect the administrative costs, cost recovery, the return on liquid assets as well the implementation of financial strategies by component.

The most obvious problems are the following:

- Clauses 6.6.1 and 6.6.2 define BP's revenues from the Administration of the Trust Fund Management Agreement. BP charges two commissions: a spread of 6 percentage points on loans' interest rates and a 0.06% commission on the loans' net portfolio value, which is subject to achieving certain performance indicators in loan cost recovery. In practice, BP could have a delinquency rate based on quotas less than 10% and have a default rate higher than 40% calculated on the portfolio of outstanding loans and still

² The way in which the Bank initially calculated the monthly quota corresponding to value maintenance meant that this did not fully cover the capital amortization. As a result, the debt kept increasing although payments were up to date. The PEU designed a new way of distributing the interest amortization components, capital and value maintenance which solved the problem with a fixed quota but higher than the original one.

be able to continue to charge its full fee³. In these circumstances, there is little --if any-- real incentive for the BP to enforce loan collection. As things are, the more the loan portfolio grows the more BP earns money independently of its performance in PRODEL's loan portfolio. This is a delicate issue given the fact that in April 1996, BP's monthly bill was roughly US\$ 12,000 -- approximately 50% of PRODEL's interest earnings.

- Clause 6.3 contains a norm dealing with the management of liquid assets. The strategy is very simple: assets remain deposited in a savings account (referred to in the previous paragraph) until BP lends the money⁴. In this way for PRODEL there are two consequences. On the one hand, risk is concentrated because all its funds are deposited in the same financial institution. On the other hand, it is providing cheap funds to the Bank. Since there is always an average positive balance in the savings account, BP may use PRODEL's money for two activities. On the one hand BP may reinvest it in financial instruments which pays 15% - 20% interest and cash the difference (5%-10%); or BP may use it to finance its own portfolio, for example, its micro-enterprise programme, charging a 36% flat rate. PRODEL maintains an average of US\$ 50,000 in its savings account, BP's annual earnings are US\$ 2,500 - 5,000 in the first option, and more than US\$ 26,000 in the second one. In practice this is a hidden extra commission for the Bank.
- The Trust Fund Management Agreement and Clause 6.3 stipulates that the funds of the housing and microenterprise components will be deposited in the same savings account. We think that some conceptual confusion may exist. PEU documents speak of a single rotating fund (with two credit components),

³ Once the Administration Agreement was approved the PEU accepted a request from the bank to re-define a delinquency indicator which would be used to evaluate the bank's performance. It was agreed that delinquency based on quotas would be the relevant indicator. We find this a curious way of measuring delinquency albeit one widely used in Nicaragua by comparing a financial flow (repayment) with the financial (stock portfolio) the indicator seriously understates delinquency particularly in the housing component. However, the wording of clause 6.6.2 allows for a different and more realistic measurement of delinquency rates which the PEU should apply: percentage of loan portfolio delinquency over total portfolio. We understand the reasons why the PEU had to accept the bank's initial request. At the outset PRODEL was an experimental programme and for PEU it was fundamental to engage a banking entity. Nevertheless, conditions have changed. Today PRODEL manages important credit portfolios; it is proven to be a successful programme and very useful for the BP and the Government of Nicaragua.

⁴ PRODEL's situation is different from other programmes which SIDA supports. For example FUPROVI in Costa Rica. Given the characteristics of the housing finance system in Costa Rica the volume of liquid assets which FUPROVI administers is much greater than those of PRODEL both in absolute and relative terms. Therefore, the financial investment policies represent are critical for FUPROVI. In PRODEL's case more aggressive financial investment policies would allow them to improve their operating income and avoid the limitations discussed in this point. Nevertheless unless the PEU might decide to reduce the level of loan operations, the management of liquid assets would not change the financial results of the revolving funds significantly given the relatively small balances of the liquid assets.

which may be the rationale for having one savings account. But if each component deals with different activities, with credit lines in completely different conditions and has different financial results, a single bank account does not make sense. In reality, PRODEL has two revolving funds and should adjust its procedures to this reality. Separate management of accounts enhances decision making for the administrative accounting of the funds and, in particular, a differentiation between the two in financial management.

PEU's main weakness in terms of financial sustainability of the revolving funds however, does not reside in the fund management. In our opinion, the PEU does not have a clearly defined long-term strategy for the financial administration of the revolving funds. To optimize the existing resources, a financial strategy should articulate the planning of the volume of the funds operations with financial policies for the beneficiaries and those who manage of liquid assets. A key element in the strategy is the definition of a set of critical financial indicators (delinquency rates, performance of investments, the contribution of the funds towards the operating costs of the Programme etc.) which will allow the PEU to make timely management decisions on the revolving funds.

The only incursions by PEU in this field are some cash flows and a first exercise on sustainability (Baseline Document 1996; Sustainability Proposal 1996). Although these are valuable efforts, they are a long way off a financial strategy. Cash flows allow PEU to check the Programme's liquidity not the funds' financial results. The Sustainability Proposal is a step in the right direction but it is still a preliminary exercise, detached from PEU policy-making, and based on a static perspective.⁵ In general, the quality of PEU's financial reporting must improve.

The consultancy team worked with PEU to develop a basic financial model aimed at facilitating a first assessment of the revolving fund sustainability. This was an important exercise both for PEU and our team because it was the first time PEU discussed the issue of sustainability in some detail. As should be expected for a first exercise, the model has some important limitations.⁶ In particular the model may over-estimate the reinvestment flow in the housing fund and, hence, the funds' financial results.

⁵ For example, the revenue from the management of financial investments was not considered; earnings from loans repayments are based on an average; the differential behaviour of repayment periods, principal and interest and value maintenance were not analyzed.

⁶ The most important constraint has to do with the loan repayment. PEU does not exercise adequate control on how BP applies value maintenance, capital amortization and interests in accounting records. In addition, the same average loan amount for the whole period (in the case of housing US\$ 650 is used); this should be revised to come into line with reality. Another important limitation is the calculation of the average balance in the savings accounts. The average balances of the financial investment portfolio and its performance do not necessarily correspond to PRODEL's experience or a detailed study the Nicaraguan financial markets.

In spite of everything, the model helps to raise a preliminary opinion on two questions: Under what conditions are the revolving funds sustainable per se? Under what conditions are the revolving funds capable of sustaining PRODEL's administrative and technical support components?⁶

To assess the revolving funds viability as of May 1996, the PEU and the consultancy team simulated three hypothetical scenarios [Scenario A (Current), Scenario B (Pessimistic), Scenario C (Optimistic)]. In scenario A the delinquency rates and the investment performance used for the projection are the actual ones. In scenario B the assumption is that the delinquency rates will double over the time period but the return on financial investments was maintained at the current level. In scenario C we assumed that the delinquency in housing would be half of its present rate and the return on financial investments would increase by five points, to reach an annual rate of 15% in US\$. We did not take into consideration new sources of capital coming from a second Swedish cooperation. We then analyzed the housing and microenterprise funds as well as the Programme's overall results. Annex.3 contains all the tables used for the analysis. The most important results are presented in Table 1.

Table 1
Sustainability and PRODEL's Volume of Operations
Summary of Indicators for the Period 1998-2004 1/

	Scenario A 2/	Scenario B 3/	Scenario C 4/
# Housing Operations	3709	2094	4822
# Microenterprise operations	29269	25333	30003
Average Annual Loss	(\$120.070)	(174.005)	(101.963)
Average Sustainability%	79.89%	68.58%	83.35%

Notes:

- 1/ During 1988-2004 PRODEL would not receive any external funds
- 2/ Scenario A. Unrecoverable debt in microenterprises: 2%; unrecoverable debt in housing 15%. Return on Financial investments: 10% annual in US\$.
- 3/ Scenario B. Unrecoverable debt in microenterprises: 5%; unrecoverable debt in housing 30%. Return on Financial investments: 10% annual in US\$.
- 4/ 4/Scenario C. Unrecoverable debt in microenterprise 2%; unrecoverable debt in housing 7.75% Performance in investments 15% annual in US\$.
- 5/ Average percentage of sustainability: Contributions of revolving funds/Total operating expenses. Contribution = 20% of annual income from the housing and microenterprise

⁶ In the exercise, we do not consider the training costs of new enterprises incurred by INATEC from SIDA's point this a hidden cost which eventually could be included in the sustainability analysis of PRODEL, in the event that INATEC becomes a permanent partner. We do not include INATEC in the present calculations because at present its costs are not part of PRODEL's budget.

funds. Total Operating Expenses: Technical Assistance Fund, Bank Commissions and PRODEL's Administrative Costs.

The main conclusions are the following:

- Once PRODEL's First Phase is concluded, the revolving funds will have the capacity to continue to finance thousands of loans. In the worst case, Scenario B, PRODEL would be able to grant more than 25.000 loans for microenterprises and more than 2.000 credits for housing during the period 1998-2004.
- The financial strategy which is pursued has substantial effects on the capacity of the revolving funds to benefit poor families. Careless management of the funds, in which high rates of delinquency are tolerated together with low return on financial investment would reduce at least by half the number of loans which could be granted by the housing fund and reduce by about 20% the capacity of the microenterprise fund to grant credits. (Compare scenarios B and C).
- Under the current loan conditions, delinquency and returns on liquid assets, microenterprises and housing funds are financially viable. Microenterprises could increase the volume of annual credit, which housing shows a slight decrease in the final period. The key variable is the delinquency of the loan portfolio. If this shoots up, for example if the delinquency doubled, Scenario B), the capacity of operations of the funds would be noticeable affected. (See Table 1), particularly in housing. A decrease in delinquency together with an increase in the return on financial investments would expand the volume of operations, particularly in housing. The volume of operations in the microenterprise fund is less sensitive to changes in delinquency and in the return on financial investments given the high loan active rate (36% flat). which allows an increase in all cases.
- The housing fund is highly sensitive to changes in delinquency and in the performance of financial investments. Several factors explain this situation: (a) the actual rates of delinquency are relatively high (15%); (b) the active rate is relatively low (12%) -- less than the rate of delinquency. Additionally, the slow rotation of the fund, due to the loan period for housing improvement (four years), only permits a relatively modest level of operations in any of the scenarios (annually the average number of credit oscillates between 300 and 700 loans).

The Housing Fund is a critical fund for PRODEL. In Annex 3. it can be seen that even under present levels of delinquency and return on financial investments, Scenario A, the capacity of the revolving fund to grant new credits diminishes over time. Naturally, this fall is more pronounced with a careless

financial administration (Scenario B). All this goes to show the strategic importance of considering new financial products which will increase the collection of the funds, its returns and the speed of rotation. The idea of the credit lines which was referred to in Section 4. takes on new significance (Action 7 of the above mentioned Section and Annex 1).

- Under no circumstances the revolving funds are able to totally cover PRODEL administration and technical support expenses. In Scenario B the capacity decreases but in Scenario C this in fact increases over the long term. In the best optimistic scenario the revolving funds cover 83% of PRODEL expenses. The Bank fee represents a significant cost.

This last issue raises an interesting discussion about the sustainability of the Programme and its revolving funds. On the one hand, PRODEL is sustainable as a programme if the operating revenue is able to defray the total administration and technical assistance support costs. Two key indicators should be able to measure the sustainability concept: first, the Programme's profits or losses once all the costs have been charged to income generated by the revolving funds; and second, the percentage of technical support and administrative costs paid for by the revenues of the revolving funds, once the capitalization of both are guaranteed.

Indicator # 1 $G(P) = IO - CT$

Where $G(p)$ = Profits and losses
 IO = Operating Revenue
 CT = Total costs of administration and technical support of the Programme

Indicator # 2. $\% S = ((IO - CT/CT) * 100)^{-1}$

Where: $\%S$ = Percentage of Sustainability

On the other hand, the sustainability can be examined exclusively in relation to the revolving funds. The funds are sustainable if, after discounting for the effects of inflation and monetary devaluation there are at least able to maintain fund assets over the loan term. The key indicator which constitutes fund profits and losses after subtracting BP commissions and the part of PEU's administration expenses and technical support generated by housing and microenterprise components.

Indicator #3. $Gf(P) = IO - (CV + CM)$

Where: $Gf(P)$ = Profits or losses of the revolving funds

IO = Operating Income

CV = Administration and Technical Support in Housing

...CM - Administration and Technical Support in Microenterprises

Note: At present, $CV = CM = CT - CI$

CT = Total Administration Costs and Technical Support of the Programme

CI = Administration Costs and Technical Support of the Infrastructure Component.

The sustainability of the revolving fund, in the sense mentioned above, does not imply the sustainability of the entire Programme because a part of PRODEL's administration and technical support costs would not be paid for from the revolving funds. The use of the sustainability concept for revolving funds requires some modifications to the accounting system. The cost centre accounting should be required to measure the degree of sustainability reached by PRODEL.

Which concept of sustainability is the most appropriate for the Programme? In our opinion, the concept of sustainability of the revolving funds - and not of the Programme - is the most appropriate for the definition of a strategy. The Project Document clearly established a series of fund and operating costs, those for the infrastructure component, which are non-recoverable costs. With these neither of the two concepts of sustainability discussed in this section apply.⁷ Given the importance of these costs, and while PRODEL retains the infrastructure component, it is very difficult to envisage that the revolving funds could generate sufficient revenue to be able to fully cover these costs. To demand sustainability of the Programme, PRODEL would have to establish a set of financial conditions for the beneficiaries which would eliminate access to housing credits for poor families and would cut them off from the microenterprise loans. Thus, we do not think that the sustainability of the Programme might be the most appropriate concept for PRODEL.

The sustainability of the Programme should be a valid long term objective. Once the sustainability of the revolving funds has been achieved, the PEU could consider new measures, for example, charge a fee for technical assistance to the communities. But this would not resolve the problem. In this context, a second co-operation from Sweden would contribute to the achievement of a sustainable programme. The co-operation can provide new capital to expand the loan portfolio and thus ensure increased operating income. Moreover, it would provide funds (one time) seed capital whose revenues would be directed exclusively to cover the administration and technical support costs of the infrastructure component.

⁷ In the infrastructure component, another concept of sustainability might be more appropriate. In this case, sustainability could refer to the capacity of the communities to maintain the services after the presence of PRODEL has ceased.

6.3 Recommendations

PRODEL needs to establish a financial strategy for sustainability of the revolving funds. Effective resource management and credit schemes which enjoy a good reputation provide PRODEL with an important base for sustainability but they are not enough to achieve it. The management of large scale and rapidly growing revolving funds involves much more than organizing an effective lending activity. Decisions on the optimal level of operations, adjustments (if any) to loans' conditions, provisions for bad loans, management of liquid assets, reinvestment of surpluses, and support for administration and technical assistance components must be taken into consideration when managing revolving funds. In our opinion PEU has not quite understood the managerial implications of revolving funds.

The definition of a sustainable financial strategy is urgent, especially if SIDA and PRODEL expect the revolving funds might manage millions of US\$ in loan portfolios and financial investments.

We are aware of the lack of experience in Nicaragua in sustainable management of rotating funds which explains to a certain degree the absence of a long-term financial strategy. This should be addressed as soon as possible. Just as PRODEL has been innovative in other areas, it should also be innovative with respect to the sustainability of revolving funds.

We recommend the following immediate actions:

Action # 1 PEU should improve the management of the housing and microenterprise fund. Actions should include but not be limited to:

- create separate accounts for the housing and micro enterprise funds.
- use delinquency based on outstanding loans as the delinquency indicator.
- define a critical delinquency indicator which includes loans that are 3 or more payments in arrears.
- request BP to produce monthly reports on delinquency for each fund based on the previous indicators.
- establish clear standards to address administrative and judicial charges, execution of guarantees, custody and resale of collateral and compliance monitoring of these by BP.

- request BP to provide monthly accounting reports for revolving funds for the month just ended.

Action # 2 PEU's financial coordination should establish a mechanism to control the accuracy of the form in which BP calculates interest earned and value maintenance in Programme accounting.

In the next three months we recommend the following actions:

Action # 3 The National Coordinator of PEU, with the help of the SIDA's external consultant should begin negotiations leading to the renewal of the present Trust Fund Management Agreement for 1997. In the re-negotiation PEU should aim to meet two objectives:

- The rate of critical delinquency should be defined as the indicator to measure the performance of BP in the administration of housing credits. PEU could use a 5% critical delinquency rate as a reference, a level which is commonly applied in housing finance systems in Latin America to measure portfolio well-being.
- The fees charged by the Bank should decrease. The PEU should argue that it is reasonable to have a reduction in fees by increasing the volume of operations, because it is not correct that the fixed costs of the Bank increase by the same proportion. A table could be developed which shows the relation between unit commission amounts and volume of actual operations.

Action #. 4. PEU's National Coordinator with the support of the Credit Component Coordinator and SIDA's external consultant should define policies for the administration of liquid assets. These policies should be approved by SIDA and should guarantee principles of solvency, security and profitability. Among the criteria which should be considered are the following:

- invest in financial instruments which offer better returns in the Stock Exchange, certificates etc.
- spread the financial investment in different institutions to reduce risks. No more than 20% of investments would be concentrated in financial instruments in one institution should be used as a benchmark.

Action # 5 SIDA should request that PEU's National Coordinator formulate a financial strategy for the management of its revolving funds, including the design and implementation of a financial planning system. The model developed during this mission could be used as a starting point. If needed, funds from the Technical Assistance and Support Fund should be allocated to hire a consultant.

Technical cooperation from Nicaraguan or non Nicaraguan institutions should be sought. A simple checklist of critical issues that should be dealt with are:

- setting up a target level of loan operations (# of new loans, delinquency rates);
- implementation of financial policies that optimize existing (and future) resources. This includes financial investment policies, creation of bad loan reserves, and study of loan conditions;
- decisions on the contribution of each revolving fund to the sustainability of administrative and technical assistance components.

SECTION 7. PRODEL'S MANAGERIAL ORGANISATION

Terms of reference:

"Analyse critical elements which could contribute to improvement the management capacity of the different actors involved (INIFOM, municipalities, Bank and community organisations"
(4)

7.1 Achievements

The main achievements of PRODEL's managerial organisation are:

- PEU has demonstrated that a complex programme may be managed through simple and lean organisational structures.
- PEU has been able to effectively engage both local governments and BP in a participatory working model which is reaching the poor.
- PEU has been able to install new technical and accounting procedures in Municipalities.

7.2 Results

In spite of working with different institutions and several actors, PRODEL has a flexible and simple internal organisation. We consider this feature one of the Programme's strengths. Contrary to what typically occurs in many developmental programmes, where heavy central administrative structures provide services to communities, PRODEL has adopted a decentralised structure, where most of the activities are carried out by local partners (the municipalities, community organisations, and the Bank).

The PEU is a small unit with Local co-ordinators in each municipality. Managua's central office consists of six persons (a national co-ordinator, two area co-ordinator, and three clerical positions, one paid for by INIFOM). In each of the urban centres, Local co-ordinators monitor relations between BP, municipalities, community organisations, and beneficiaries, and help solve operational problems. The Local Co-ordinators respond to the National Co-ordinator, although they have functional interactions with both PEU's area co-ordinators. Basic reporting to PEU is done through monthly written reports containing quantitative information on the Programme's performance. In addition, they participate in monthly meetings held at PEU's offices.

The streamlined structure of PEU however is also its main weakness. Such a small and decentralised structure is very sensitive to the performance of each of its members, and requires very efficient working systems. Our field visits revealed the existence of critical weaknesses in PEU's managerial organisation that call for urgent and decisive action.

The Local Co-ordination is PEU's weakest area. In spite of their crucial role in managing PRODEL at the local level, and their attractive salaries - competitive within the Nicaraguan context - most Local Co-ordinations fall short of meeting the standards. With some notable exceptions, we did not find that they make a substantive contribution to the development of institutional capabilities in PRODEL's municipalities. Many operative issues need to be dealt with directly by the small central office in Managua. As a result, the national co-ordination and both area co-ordinators are needlessly bogged down in the everyday routine administrative and technical tasks, which should be dealt with locally and which means that they have little time to deal with the Programme's strategic issues. Among the factors contributing to weak local coordination we can mention the following:

- The original Terms of Reference (2/15/1994) of the 'Municipal Co-ordinator' specifies an economist or a business administrator. The experience of the Programme has shown that this was not necessarily the appropriate professional profile. More than people from a particular field, what is needed is an experienced professional in social and technical issues. PRODEL needs professionals with managerial capacities, experience in community-based housing projects and minimum financial knowledge on how to handle credits.
- The original Terms of Reference create an ambiguous relationship between Local coordinators and PEU Managua's Office, particularly with the financial and infrastructure Area Co-ordinators. The Terms of Reference do not define clear lines of authority on specific areas of competence between the local and central level. As a result, Local co-ordinators 'bypass' Managua's area co-ordinators and deal directly with PEU's Director, or simply do not follow area co-ordinators instructions.
- PEU has not established a system of staff performance and evaluation. This lack of evaluation has thwarted the adoption of disciplinary procedures in cases where instructions from the central office were not carried out. Moreover, situations which adversely affected the quality of the Programme have been tolerated. For example, hiding serious technical problems in the quality of infrastructure projects from Managua's central office has gone unsanctioned. The only clear norm in place has been the instruction to Local co-ordinators to stay clear from municipal politics. Infringement of this norm led to firing of Estelí's Local Co-ordinator.

- The PEU's lack of mechanisms for monitoring the Local Co-ordinators' work including a lack of guidelines on the type of report and information which should be prepared. The majority of people we interviewed regarded monthly meetings as routine and informative events.
- These problems are not new. Our appreciations only confirm the findings of a series of analysis carried out by a consultant hired by PEU to design the Programme's information systems (García 1995a; 1995b; 1996). Although these issues were discussed with the Local Co-ordinators, the National Co-ordination has not taken the pertinent actions to introduce the proposals found in the consultant's report. In our opinion, if the issue of poor performance of the Local Co-ordinations, continues to be side-stepped the Programme will face serious problems in maintaining its level of operations and overall performance.

Three other issues require special attention:

- The Programme lacks of a managerial information system. Unlike many other programmes where no reliable data may be at hand, in PRODEL data exists but is not processed. We reviewed credit files at BP local branches which are kept in good order, and found that they contained vital but unprocessed information. BP branch offices also have detailed information on delinquency for example, lapsed portfolio which is not sent to PEU. Municipalities keep separate accounts for PRODEL projects. For the most part, however, all this information is lost for managerial purposes. The information received by PEU's central office is poor both in quality and scope. Much could be done to improve the Programme's current strategies if some of the dispersed information were sent to PEU's central office. The PEU have taken a few small steps aimed at designing a managerial information system but they have not been followed up with new actions.
- A critical issue such as technical assistance in the housing improvements component is forgotten in the numerous daily tasks of the PEU Office. No one at PEU is in charge of implementing the housing component. In practice, housing is delegated to BP local officials and TEU personnel, and PEU does not exert the necessary leadership in this area --except for the supervision of BP's compliance to PRODEL's norms and procedures. Involvement of most Local co-ordinators is limited to some participation in promoting housing credits.
- No specific goals have been set for the Programme's technical assistance and support component. Up to December of 1995, PEU had spent approximately US\$ 130,000 in various activities related to community participation and infrastructure feasibility studies. We found no clear strategy to optimise the investment of the technical assistance component.

Moreover, care should be taken so that consultants hired to deliver seminars and workshops on community participation fully understand and apply the Programme's methodology.

7.3 Recommendations

We think that PRODEL's current managerial organisation requires substantial improvement. In our opinion, this aspect - together with the technical assistance in housing (ref. Section 4) - is the weakest of the Programme. While the current managerial organisation was able to jump-start PRODEL, and should be praised for this achievement, we feel it is ill-prepared to handle the complex tasks ahead. The PEU would be able to resolve the majority of its managerial weaknesses by a more efficient use of existing human and technical resources as well as the adoption of firm measures to be carefully executed in the case of the Local Co-ordinators. Above all, the improvement of the managerial organisation is a task which corresponds to the National Co-ordinator and upon which his performance should be assessed.

In the immediate term, our main recommendations are as follows:

Action # 1 PEU should address the weaknesses of local co-ordination as soon as possible. The Terms of Reference should be reformulated. A staff appraisal system should be initiated and most importantly a detailed assessment of the present Local Co-ordinators should be carried out to decide which of them do not meet the standards required by the Programme. Some specific actions that PEU may consider are:

- The Terms of Reference should specify that a key function of the local co-ordination is to train Bank personnel and municipal staff in PRODEL's methodology. Moreover it should indicate that Local co-ordinators must resolve technical and organisational problems which arise locally following PEU's guidelines and with the obligation to fully inform the central office of the actions taken. Finally an important obligation is to process and analyse basic data as part of the Managerial Information System, referred to later in Action # 4.
- PEU monthly meetings with Local Co-ordinators could be rotated between each of the cities where the Programme works. This will allow the opportunity to transcend the bureaucratic routine by organising field visits which would allow first hand and practical discussions about on-going issues; thus improving communications between the Bank, the municipalities and the PEU and thereby avoid the tendency of Local Co-ordinators to hide poor results.

Action # 2 PEU should undergo a functional reorganisation. Some specific actions that the National Co-ordination could consider are:

- The National Co-ordinator must focus his activities to ensure that the strategic and operational objectives of the Programme are accomplished. Likewise, the National Co-ordination is in charge of the Programme's general administration as well as actively encouraging inter-institutional co-ordination in order to increase PRODEL's profile. The National Co-ordination should delegate technical tasks to the area co-ordinators. Likewise operational tasks should be delegated to Local co-ordinators.
- Area Co-ordinators functions should concentrate on control, monitoring and evaluation of the Programme's performance. In their specific areas of competence the Area Co-ordinators should have authority over Local Co-ordinators.

With the assistance of SIDA's external consultant the possibility of hiring a person in charge of housing should be studied as suggested in Action 1 of Section 4. Alternatively the technical supervision of infrastructure projects could be subcontracted. By creating a housing co-ordination the PEU would have three specialist areas: housing, infrastructure and finance. The microenterprise component does not need a co-ordinator. The work in this field could be divided between the existing coordinations. Financial services could be covered by the financial co-ordinator (explained later) while technical assistance and training would be within the housing co-ordination.

- The area of financial co-ordination should be formalised, taking responsibility for the control and monitoring of the administration contract with BP. As such this co-ordination is responsible for overseeing the quality of financial services offered by BP to the beneficiaries and for carrying out the financial strategy for sustainability of the revolving funds, analysed in Section 6. We consider that this function can be carried out by the staff member currently in charge of credit systems within PEU.

In the short term (no more than 12 months), we suggest the following actions:

Action # 3 PEU's National Co-ordination should immediately set up a basic management information system (MIS). In a first stage, PEU needs timely information in four areas: target social group; the efficiency of BP services to the public; loan portfolio behaviour; and the quality of housing and infrastructure. Among others, some simple measures that the National Co-ordination may consider are:

- socio-economic information given by beneficiaries in their credit applications should be used to monitor PRODEL's performance in reaching its target

group. The most important indicators are: family income, occupation of economically active members of the household desegregated by gender, size and composition of household (highlighting household headship), and amount of credit approved.

- The efficiency of BP services to the public could be measured by three indicators: transaction period, volume of approved or refused credits and causes of refusal of credit. The dates of credit application, inspection, and approval or refusal as well as the causes of refusal are contained in all credit files.
- The PEU must contract out the design of a data base to register data on the socio-economic conditions of beneficiaries and the quality of BP services. The data base must be installed on a software capable of storing large volumes of information. Once installed registering data could be handled in a simple manner: information on credits (approvals and refusals) could be done by municipal administrative support. A secretary could punch in the information corresponding to new operations on a monthly basis – since the new operations per month are relatively few. Data entry of the Programme's existing credit portfolio, - prior to setting up the data base - could be subcontracted.
- Local Co-ordinators should present periodic reports on the quality of housing improvements and infrastructure. The Co-ordinator in the housing component, with the assistance of SIDA's external consultant, should design a simple format for the social promoters and technicians in their field visits based on recommendations made in Sections 3, 4 and 5.
- The Local Co-ordinators' report should be done at least on a monthly basis. Annexes should include socio-economic information of the demand for PRODEL and the efficiency of BP services to the public. The information should be submitted both in hard copy and diskette, ready to be fed into the central data base in Managua.

Action # 4 PEU with the support of SIDA's external consultant should prepare an annual operative plan for the Technical Assistance Support Component. This plan should clearly specify goals and indicators for measuring performance. SIDA should monitor the plan's implementation.

SECTION 8 RECOMMENDATIONS ON THE FUTURE OF PRODEL

Terms of Reference:

" make recommendations on the future of the Programme including its operational, institutional and financial sustainability (2)

The mission recommends that SIDA initiate discussions with INIFOM on PRODEL's second phase. Should SIDA approve a new phase, it should be conditioned to satisfactory progress by PRODEL in the fulfilment of a series of requirements during the remainder of the first phase. In addition, in planning a new Swedish co-operation a broad range of legal, institutional, financial, managerial and social issues should be considered. Clauses 2.6 and 2.7 of our terms of reference request that the mission address these issues. In this section a plan of action is outlined for the full settlement of PRODEL's first phase, and design and implementation of a second phase.

8.1 Full Settlement of the First Phase

In the remainder of PRODEL's first phase, the main goal is to consolidate the Programme's institutional and operational model. Despite the accomplishments, we think that the Programme's model is far from achieving institutional sustainability. We are aware that local capacity-building is a long-term process and that political and economic conditions, both national and local, may threaten the Programme's ability to become a permanent model based on inter-institutional co-ordination. There are also internal reasons that may hinder PRODEL's consolidation, in particular, the management, administrative and technical problems analysed in previous sections. PEU must undertake prompt and determined actions to fully address the Programme's current weaknesses.

Until the end of the first phase we do not recommend any change in the present *modus operandi*. INIFOM's and PEU's request to SIDA to include new financial intermediaries in the microenterprise and housing components will only add to the risks and administrative complexities already present in the relationship with the BP without resolving any of the current problems (Prodel 1996b:52; Prodel 1996c:2). Given the complex context and the pending tasks, it is too soon to expand into new municipalities. In short, we think that PRODEL should concentrate on improving its quality within the existing institutional, organisational and territorial framework before engaging in new endeavours.

Our recommendations for the closure of the first phase focus on streamlining the Programme's existing working model. We propose that actions by PEU, SIDA and INIFOM should be aimed at achieving three specific objectives: These are:

- to amend the Programme's current managerial and technical weaknesses;

to minimise the risks posed by Nicaragua's political transition;

- to carry out an orderly closure of the first phase.

Our insistence on consolidation during the remainder of the first phase in part stems from the Programme's nature. In many ways PRODEL is unique. Unlike most externally supported programmes, two of its components include revolving funds. As discussed in Section 6, unless SIDA allows fundamental change in the Programme, the revolving funds will continue well beyond the Project's first phase, or even that of a second phase. Thus, the basis for sound management of the funds' assets must definitely be in place before SIDA's support ends. In addition PRODEL works through different institutions, such as local authorities, a bank and community-based organisations. Its reliance on these institutions' willingness and capacities underscores the need for effective and efficient rules and procedures, and adherence to these by each actor. It should be borne in mind that PRODEL can only be efficient to the extent that its partner institutions are, thus institutional development is primordial for the Programme.

8.1.1 Amending Current Weaknesses

Sections 3 to 7 of this report set out a series of detailed recommendations which in our opinion should be implemented to correct the current weaknesses of the Programme. The following chart groups the principal actions in three areas: technical aspects, institutional and managerial, and administrative/financial. These are the immediate or short term actions (3-12 months). The chart, does not list all the recommendations made in the above mentioned sections, but rather highlights the priority actions since these are the most important in formulating an operative plan. This plan should be prepared by the PEU. The strategic actions corresponding to the preparation of a second phase are presented in the timetable in Chart 3. of this section.

Action # 1. No later than July 15 of 1996 PEU should inform SIDA of their plan to implement the actions described in Sections 3, 4, 5, 6, and 7 of this evaluation.

Action # 2. No later than 17th July of 1997, SIDA should carry out an initial appraisal mission to verify that satisfactory progress has been made by PEU in the fulfilment of the recommendations referred to in this report and summarised below. Any discussion between SIDA and INIFOM regarding a possible continuation of Swedish support to PRODEL should be conditioned to a positive assessment by the appraisal mission.

CHART 1
Summary of Immediate and Short Term Actions

No Action and Section	Description of Action	Immediate	Short Term (3-12 months)	Responsible for Initiating Action and Support Personnel
No. 1 Technical				
#1-3.Sec.3	Prepare a Environment Health Education Plan	X		PEU/ SIDA's Consultant
# 5.Sec.3	Prepare and implement a maintenance strategy for the infrastructure and community services projects		X	PEU
# 4. Sec 3.	Design a set of sanctions to monitor the quality of the infrastructure projects	X		Component Co-ordinator
# 2. Sec 4	Carry out a survey and prepare an inventory of the technical faults in the housing improvements in each municipality	X		PEU/municipalities/ external consultant
# 1. Sec 4	Develop a strategy and procedures for technical assistance in housing improvements	X		Housing Co-ordinator
# 5. Sec 4	Create a monitoring system for housing improvements		X	Housing Co-ordinator
#6. Sec 4	Make a review of promotional strategy in housing component ;determine the coverage of neighbourhoods (expansion or consolidation)		X	PEU/Municipal Commission/BP
# 1. Sec 5	Reformulate the training proposal for the formation of new microenterprises	X		INATEC/PEU
# 3. Sec 5	Carry out a study to define a strategy for financial, technical training for microenterprises in expansion		X	PEU/SIDA's Consultant
2. Institutional/Managerial Organisation				
# 1. Sec 7	Introduce measures to correct problems in local co-ordination	X		National Co-ordinator/-PEU
# 2. Sec 7	Carry out a functional re-organisation of the PEU		X	Idem
# 3. Sec 7	Co-ordinate the setting up of a basic managerial information system.		X	Idem/Consultant
# 4. Sec 7.	Prepare an annual operational plan for the Technical Support Fund		X	PEU/Consultant SIDA
#3-4 Sec 4 #2,6 Sec 3	Carry out training for different programme actors- BP, TEU's, communities -organise exchange visits		X	PEU/Consultant SIDA
3. Administrative/Financial				
# 3. Sec 6	renegotiate the renewal of the Trust Fund Management Agreement	X		INIFOM/PEU/ BP
#1. Sec.6	Introduce measures to improve the management of the revolving funds	X		PEU
	Carry out a study on the surpluses resulting from the favourable exchange rate	X		Financial Co-ordinator
#2. Sec 6	Create mechanisms to control the way in which the BP charges interests, etc. in the accounting		X	National Co-ordinator
#4. Sec. 6	Define policies for the management of liquid assets		X	National Co-ordinator
# 5 Sec 6	Formulate a financial strategy for the management of the revolving funds.		X	Nat. Co-ord./ Consultant SIDA
Annex 1	Carry out a feasibility study on credit lines.		X	PEU/Consultant

8.1.2 Minimising Risks

We recommend the following actions:

Action # 3. In January 1997, PRODEL should make a pause in the start up of any new infrastructure projects until the newly elected local authorities in the five municipalities commit themselves to the Programme's model.

Action # 4. SIDA should review its co-operation programmes in the five municipalities to ensure that PRODEL's working model, is not undermined, by other programmes which are asistentialist and lack a participatory approach. Additionally, co-ordination between programmes funded by SIDA should be encouraged to maximise the benefits of each.

8.1.3 Orderly Closure

Closure of PRODEL's first phase is rather complex, not only due to managerial problems but given the nature of the programme. At the end of PRODEL's first phase, provisions must be made to properly manage around 50% of the programme's resources allocated to the housing and microenterprise funds. In addition, PRODEL shows a slower than planned use of financial resources. In December 31 1996, availability of funds could approximately be US\$ 1.5 million from non-disbursed funds and near to US\$ 2 million invested (loans and liquid assets) in the revolving funds. Not all PRODEL's components have the same availability of funds. Housing and micro-enterprises have more availability than administration and infrastructure.

Chart No. 2
Estimated Funds' Availability at 31 December 1996
(in US dollars)

Disbursed items	Total Availability	undisbursed Balances	Funds (Liquid Assets) ^{1/}
Infrastructure	13,833	0	13,833
Microenterprise	552,345	439,589	112,756
Housing	462,855	313,923	148,932
Management	185,056	164,232	20,824
Technical Support	315,000	230,000	85,100
Total	1,529,089	1,147,744	381,445

Source: PRODEL

¹ The estimation of disbursed funds but not invested (liquid assets) is ours. The calculation is based on the past expenditure behaviour of the component. The percentage of real execution 1994-1995 (the first two years of the Programme) are compared with a theoretical expenditure. Given that in 1994-1995 two thirds of the original period elapsed, the assumption is that in theory two thirds of the resources were spent. The differential between theoretical execution and real are applied to the disbursements programmed for 1996.

SIDA has informally accepted PRODEL's request to move the Programme's closing date to December 31, 1997. An extension will certainly give time for the housing and microenterprise revolving funds to apply and use new disbursements to increase their loan portfolios. However, infrastructure and administration components may feel the crunch because of their lack of funds. In 1997, there are no funds budgeted for these components, therefore, SIDA should make some additional instructions for the use of remaining financial resources.

Given the SEK's revaluation against the US dollar, a positive difference has been created between the Swedish co-operation budget in SEK (SEK 44,000,000) and the operative budget in US\$ approved by SIDA (US\$ 5,475,354) which is an additional flow of resources. As yet there is no decision by SIDA regarding the allocation of these funds. The exact amount of these resources needs to be known. It is likely however that these will allow for a fourth year of operations of Phase I.

We recommend the following actions:

Action # 5. The PEU, with support from SIDA's external consultant should carry out a study of the surplus funds resulting from the favourable exchange rate. Based on the results of this study a plan should be presented to SIDA for the use of these funds showing the distribution between the programme components. The plan should include indicators for monitoring its implementation.

Action # 6. SIDA should formally authorise the extension of PRODEL's first phase until December 31, 1997 once PEU and INIFOM have presented the plan mentioned above. This decision should be communicated to INIFOM as soon as possible.

Action #7. INIFOM should renegotiate the Management and Trust Fund Agreement with the BP for the period January 1, 1997 to December 31, 1997. Renegotiation must aim at improving the bank services to PRODEL along the lines indicated in Section 4, 5, 6 and 7. Prior to signing the new agreement SIDA should indicate its conformity to the new terms.

Action # 8. At the end of February 1998, INIFOM should submit to SIDA complete and satisfactory documentation on the full settlement of the Programme's first phase through to 31 December 1997. This documentation should include:

- an audited balance sheet and accounting statements in accordance with the recommendations made by the operative audit contracted by PEU.

- for housing and microenterprises revolving funds, information should also consist of the audited statement of earnings, profit and loss statements, and operating statements (loan and financial portfolios).
- a full report on the fulfilment of the Programme's physical and financial goals.
- a full report on the social impact of housing, infrastructure and microenterprise components.

8.2 Second Phase

Terms of Reference:

"Make recommendations...and outline basic guidelines for a possible second phase of Swedish Cooperation to PRODEL

The main goal of PRODEL's second phase is to implement a permanent institutional and financial framework capable of accomplishing PRODEL's objectives as stated in the original Project Document (INIFOM 1993) once SIDA's support ends. At the end of this phase, PRODEL will basically rely on its financial, technical and organisational capabilities to promote decentralised local development.

While we do not envisage substantive changes in PRODEL's goals, components or target population, important adjustments in the Programme's strategy must take place. Changes should enhance PRODEL's institutional sustainability and replicability.

8.2.1 Pre-requisites

A series of prerequisites must be fulfilled before SIDA approves the implementation of the Programme's second phase. We feel strongly that without consolidating PRODEL's operational model, SIDA should not allow the Programme's second phase to begin. In Section 8.1. a series of steps for PRODEL's consolidation during the remainder of the first phase are outlined.

Given SIDA's project approval cycle, in 1997 a strategy must be prepared on the one hand, to carry out all the necessary steps for the approval of a second phase and on the other, for the completion of activities from the first phase. If both processes are properly managed by SIDA, unnecessary complications related to the overlap can be avoided. We propose that SIDA include a transition period during the initial months of the Programme's second phase. During this period PEU basically would monitor the on-going operation of the housing and microenterprise funds, and take care of any pending tasks from the first phase. No new operations corresponding to the second phase should be

undertaken until SIDA decides to give the final go-ahead. This decision is subject to a satisfactory full settlement of the first phase.

In the formulation stage, we recommend the following actions:

Action # 9. In the middle of June 1997, PEU, through INIFOM, should submit to SIDA a preliminary document containing a basic outline for a second phase. The outline should include the programme's quantitative and qualitative goals, legal and institutional framework, and financial strategy and resources.

Action # 10. In July of 1997, a SIDA appraisal mission will review the above mentioned preliminary document formulated by PRODEL prepare a final version for a second phase Project Document. This mission has the same responsibility of verifying the programme's progress referred to above.

Should SIDA approve a second phase during the September/October (northern autumn) we recommend that the following conditional clauses be included.

Action # 11. SIDA's financial and technical co-operation should be for a period of no more than three years beginning on January 1998 (01/01/1998 to 12/31/2000).

Action # 12. The approval must contain a specific clause conditioning the implementation of the second phase to the successful completion of all the actions outlined in Section 8.1. (actions # 1-8)

Action # 13. The second phase budget should include an initial caretaking stage during which no new funds for infrastructure, housing and microenterprises are allocated. During this period PEU would exclusively be in charge of the control and monitoring of the on-going microenterprise and housing revolving funds. Operation of these funds includes the management of liquid assets, repayment of the loan portfolios, and new loans for housing improvements and microentrepreneurs with the existing funds. A total suspension of these funds could negatively affect both the beneficiaries and the credibility of the programme. The caretaking stage includes the period between 01/01/1998 and the completion of the requirements referred to in action # 12.

Action # 14. In March/April of 1998, an appraisal mission will review the fulfilment of the clause indicated in Action #12.

Action # 15. Based on the recommendations of the appraisal mission, SIDA will authorise the transfer of new funds for housing, microenterprises and infrastructure components ('go ahead' decision), or conclude its financial and technical co-operation to PRODEL. In the latter case, SIDA should issue clear

instructions about the legal status and application of the housing and microenterprise funds' assets.

8.2.2 Legal and Institutional Framework

PRODEL's second phase project document should set out very clear guidelines to remedy the programme's weak legal framework. From a legal standpoint, PRODEL currently consists of an agreement between the Governments of Sweden and Nicaragua --in which INIFOM becomes the representative of the latter--, an executive unit with no legal status, and a Trust Fund at the Bank. While the legal status of PEU is open to discussion, we have no doubt that the whole framework is ill-suited to cope with the management of trust funds.

This last point requires further explanation. BP is the trustee or fiduciary of the housing and microenterprise funds. Assets of these funds do not belong to the bank but to "PRODEL" --represented in this case by INIFOM. The bank has no legal obligation for PRODEL's assets other than to provide a good service. Except when outright negligence may be proved --a very difficult legal and practical issue--, the bank is not responsible for the funds' financial and operational results. If INIFOM terminates the contract, or the bank decides not to continue as fiduciary, INIFOM inherits the financial investments and loan portfolios. While it finds a new trustee, INIFOM is responsible for the operation of both the housing and microenterprise funds, including loans approval and repayment, and management of liquid assets. Certainly, it is not within INIFOM's institutional mission to involve itself in these tasks. Moreover, ownership of PRODEL's revolving funds assets is unclear. INIFOM's status as representative of the Nicaraguan Government for PRODEL's programme does not necessarily imply ownership.

The institutional framework for the Programme's second phase should clearly resolve these outstanding legal issues. Both PEU's legal status and the ownership of the housing and microenterprise funds represent key elements of the second phase design. We envisage three options:

Option A: Institutionalising PRODEL within INIFOM. Ownership of PRODEL's assets would be eventually transferred to INIFOM. We do not recommend this option. It is not specified in the terms of INIFOM's 1995 re-structuring agreement (INIFOM 1995) to engage in legal and financial management of credit systems. We also think that PRODEL's financing systems would be unnecessarily vulnerable to political circumstances.

Option B: Creating a Non Governmental Organisation (NGO), responsible for the credit lines. Ownership of PRODEL's assets would eventually be transferred to this institution. We do not recommend this option. Local actors should not be replaced by a new --and possibly Managua based-- institution.

These considerations will obviously affect the resource distribution between the components. Even though the infrastructure component might not be priority, it could be that its allocation is similar to that for housing. The revolving fund will require a huge injection of capital to expand the level of new operations. Thus, about 25-35% of the new funds could be considered for these two components while microenterprises would require around 15-20% of the allocation of the second phase. In general, the allocation of funds should allow for a modest increase in the current levels at present available to the five municipalities and also for building up the loan portfolio in the new municipalities where PRODEL wishes to expand.

We recommend the following actions:

Action # 19. SIDA should request that INIFOM's proposal for a second phase (referred to in Action # 9), and the appraisal mission document (referred to in Action # 10) specifically address changes in the components' strategies discussed in Section 3,4, and 5. In particular, both documents should discuss ways to improve the housing revolving fund's performance.

8.2.4 Sustainability

In the second phase the Programme must firmly move toward sustainability. As recommended in previous sections this issue requires reorganisation of the accounting system, establishing financial management policies and implementing PRODEL's financial planning system.

Once these conditions have been fulfilled, PRODEL's main challenge is to change the way in which the Programme funds its administrative component. In a second phase, allocation of funds for this component should not cover unforeseen expenses. It makes sense to fund those administrative expenses related to implementation of the infrastructure component. Nevertheless, other expenses related to the housing and microenterprise components (bank commissions plus PRODEL expenses) should not be covered in the second phase. The results of the model analysed in Section 6. suggest that the revolving funds can cover the administration and technical support costs of housing and microenterprises. In a second phase an allocation of approximately 4-5% of new funds, that is, about 50% of the actual figure could be considered for administration costs, incurred mainly in the infrastructure component. In any case, SIDA should not allow PRODEL to cover administrative expenses by decapitalizing the revolving funds. An alternative could be that SIDA transfer the administrative portion to PRODEL as seed capital. Therefore, SIDA would make one initial disbursement, so that part of PRODEL's administrative expenses are funded by the financial results of the

Action # 18. Transfer of legal ownership of assets to the new entity responsible for PRODEL should be done after the full settlement of the second phase (early on in year 2001), subject to a SIDA's final appraisal mission.

8.2.3 Investment Components

A second phase programme must build upon PRODEL's experience with infrastructure, housing, and microenterprises. At the present moment we do not envisage the need for new components. Instead we think that a new phase should focus on adjusting the Programme's priorities and strategies aimed at improving PRODEL's overall performance.

As stated in Section 5, the microenterprise component does not require changes once modifications in the training and technical assistance for new microenterprises have been introduced. The infrastructure component needs a few minor changes in strategies for community participation, post-project operation and maintenance and environmental issues as outlined in Section 3. Of the three components, housing is the one which requires most adjustments in its financial management, technical assistance and new services (Home Improvement Plan).

In the second phase we propose that housing and infrastructure are the main priorities without abandoning microenterprises. Obviously the combination of these components is unusual and could be objected to in a number of ways. For example, it could be argued that infrastructure, which is executed by the Town Councils and organised by community groups with non-recoverable funds, are different from housing and microenterprises which are based on individual credits. Although the combination is somewhat unconventional it has worked very successfully for PRODEL and thus there is no reason to make any major changes. Further, the Programme has established links with a number of local institutions and in turn has strengthened the municipalities and community capacities to work from an integral urban services perspective. Since these are non-recoverable funds, how will this component be funded beyond the second phase? We recommend that one of the key tasks for the new entity would be to search for additional funding sources so that this important aspect of PRODEL's work would be preserved as one of the Programme's main objectives in the long term.

The physical and financial planning of the second phase should bear in mind that the housing and microenterprise components will have two types of funding, those from the first phase, invested in revolving funds and those from the new co-operation. Further as shown in Section 6, the microenterprise fund will be able to grant 1.000's of credits annually with the resources from the first phase, and in urban centres where there is already much competition, while infrastructure will only have funds allocated from the second phase.

These considerations will obviously affect the resource distribution between the components. Even though the infrastructure component might not be priority, it could be that its allocation is similar to that for housing. The revolving fund will require a huge injection of capital to expand the level of new operations. Thus, about 25-35% of the new funds could be considered for these two components while microenterprises would require around 15-20% of the allocation of the second phase. In general, the allocation of funds should allow for a modest increase in the current levels at present available to the five municipalities and also for building up the loan portfolio in the new municipalities where PRODEL wishes to expand.

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seed capital. PRODEL would not be allowed to invest these funds in other items nor to diminish the seed capital's patrimony.

We recommend the following action:

Action # 20. SIDA should request that the Project Document referred to in Action # 9 includes a detailed proposal for the sustainable operational model for the Programme's executing agency.

8.2.5 Replicability

Local level development is a long-term process. PRODEL must build upon the first phase achievements in order to create long lasting effects. Therefore, in a second phase PRODEL should continue working in the same municipalities. The Programme may consider, however, the possibility of extending its coverage to new poor urban neighbourhoods. We recommend that the current policy of working outside of the downtown areas is ratified.

Replicability must be an important issue in a Programme's second phase. Instead of spreading to new regions, PRODEL may replicate its model in new municipalities within the same regions where the Programme is already working. This would help strengthen the results of the Programme and facilitate an evaluation of the long-term sustainability of its operations. One idea which emerged during the mission and was put to the consultants was the possibility of PRODEL working in the Atlantic Coast. We do not recommend this, at least for the next stage of expansion of the Programme. Given that the region has a very different cultural context, as well as a lack of institutions and poor communication links we feel that the model is not so easy to replicate. It would first require a very detailed feasibility study to examine the degree to which the existing model would have to be adapted to fit this context.

Instead, we recommend adding two new small urban municipalities to PRODEL, one in each of the regions. These municipalities should be medium to small urban centres, like Somoto or Ocotal and the allocation of funds for these new municipalities should be similar to the amounts for Somoto or Ocotal during the first phase.

The rationale for choosing medium to small-sized urban centres is to foster local level development in towns where PRODEL can have a substantial effect. On the one hand, in these towns municipalities are not so weak as to lack basic institutional capabilities to fully participate in PRODEL's model. On the other hand, they are not so strong as to pose complex institutional problems that may constrain PRODEL's activities. Finally, PRODEL's presence in these centres would do much to boost the local economy.

In summary, our recommendation on programme expansion does not exclude the possibility for SIDA and INIFOM exploring other options, however, any expansion should be thoroughly studied. One possibility which merits examination is that of modifying the selection process for the identification of new municipal partners. PRODEL could establish a set of requirements, which could include for example, the disposition of the mayor to put staff and matching funds in the Programme, and a clear commitment and agreement to follow PRODEL's financial procedures. In this way the Programme would promote a healthy competition between municipalities.

8.2.6 External Assistance

SIDA's external assistance is critical to the implementation of a second phase. SIDA must ensure that in a new phase the quality of its technical assistance matches the level we currently found. PRODEL is a non conventional programme which requires high expertise in different fields. Technical assistance must be able to grasp the complex web of institutional, legal, financial, technical and social aspects co-existing the Programme.

SIDA may consider gradually phasing out external assistance. We have little doubt that in 1998 strong support and close monitoring of the new institutional framework will be required. Thus, PRODEL needs a permanent consultant during the initial year of the programme's second phase. In 1999 and 2000 SIDA may choose to modify the modality. The appraisal mission should assess whether a permanent consultant is still required. One option could be to switch to periodic stays by a consultant (one month twice a year) for the last two years of the second phase. In any event, SIDA should participate in the Board of Directors and have an observer's role through the year 2000.

SIDA should pay very close attention to the transfer of legal ownership of assets to the new institution and the programme's second phase full settlement. Both processes are pivotal to PRODEL's sustainability once SIDA's co-operation ends. An appraisal mission should set up the specific conditions under which legal ownership is transferred.

We recommend the following action:

Action # 20 SIDA should verify that transfer of ownership referred to in Action # 18 abides by the conditions established by a SIDA's Appraisal Mission to be carried out in mid-2000.

8.2.7 Financial Resources

It is beyond the scope of our terms of reference to recommend the amount of SIDA's second phase financial co-operation. However, should SIDA discuss

the terms of a new co-operation, estimated financial and operative results of both the housing and microenterprise revolving funds must be taken into account. In a second phase, PRODEL's interventions will also be funded by these. Therefore, when setting up qualitative and quantitative goals for a second phase, SIDA's new disbursements as well as the projected funds' results should be included. An agreement on a new co-operation should establish target indicators for the management of the revolving funds.

SIDA's appraisal mission, which will be responsible for preparing the final version of the new project document, could explore the feasibility of decentralising the revolving funds. This is one step beyond our recommendation which stresses the management of housing and microenterprise funds in separate accounts, which we consider important for the remainder of the first phase. In the second phase each city may have its housing and microenterprise funds instead of one national revolving fund, for example, Chinandega would manage its own. This approach would be in keeping with PRODEL's expressed objective - strengthening the decentralisation process and local development. Splitting the national revolving fund into decentralised funds does not require substantial legal or institutional changes. For instance, it may only require opening new accounts within the existing Trust Fund. However, in terms of management it does have important advantages. It put additional pressure on local actors to carefully manage their resources. It also avoids punishing good performance by local actors in city X by preventing resource allocation to a poorly performing city Y.

Action # 21. SIDA will include in appraisal mission's terms of reference an analysis of the feasibility of decentralising the housing and micro enterprise funds.

8.3 Time Schedule

Table 3 presents the time schedule of the actions we have recommended in this section for both the closure of PRODEL's first phase and the design and implementation of a second phase.

Table 3
Time Schedule for the Closure of PRODEL's First Phase and Design
and Implementation of PRODEL's Second Phase

Month/ Year	Relevant dates Nicaragua	Existing deadlines PRODEL I Phase	Proposed deadlines PRODEL I Phase	Proposed deadlines PRODEL 2nd Phase
Jun. 96			Study de differential exchange by PEU. INATEC s new plan	
Jul. 96			SIDA communicates extension Phase I a Dec. 97 PRODEL presents Plan for managerial improvement	
Aug. 96	Beginning of Electoral Campaign			
Sep. 96				
Oct. 96	National and Municipal Elections		Renegotiation of trust fund	
Nov. 96				
Dec. 96				
Month/ Year	Relevant Dates in Nicaragua	Existing Deadlines PRODEL Ist. Phase	Proposed Deadlines PRODEL Ist. Phase	Proposed Deadlines PRODEL 2nd. Phase
Jan. 97			Beginning of I Phase Extension Temporal suspension of new infrastructure projects	
Feb. 97	New National and Municipal Authorities take office			
Mar. 97			Operating Plan with new authorities Beginning of new infrastructure projects (conditioned)	
Apr. 97			External evaluation of housing and infrastructure	
May. 97			Operational Audit	Prodel 's national team II Phase proposal Legal study of Prodel II Phase Institutional Framework
Jun. 97		End of I Phase (To be changed)		PEU Proposal for II Phase
Jul. 97				SIDA Appraisal Mission and formulation of Phase II
Aug. 97				

Sep. 97				SIDA approves II Phase (conditioned)
Oct. 97				renegotiation of the Administration Contract
Nov. 97	Election of INIFOM's New President and Executive Director			
Dec. 97	New INIFOM's authorities take office		Closure of PRODEL's I Phase	
Jan. 98				
Feb. 98				PEU submits I Phase Final Report (accounting, external audit, construction works)
Mar. 98				SIDA's Appraisal Mission
Apr. 98				Full Beginning of II Phase
Month/ year	Relevant Dates in Nicaragua	Existing Deadlines PRODEL Ist. Phase	Proposed Deadlines PRODEL Ist. Phase	Proposed Deadlines PRODEL 2nd. Phase
Jan. 99				SIDA's Appraisal Mission
Jan. 00				SIDA's Appraisal Mission
Dec. 00				Closure of II Phase End of SIDA's co-operation project
Feb. 01				II Phase Final Reports
Mar. 01				SIDA's Appraisal Mission
Jun. 01				Transfer of assets to new institution by PRODEL
Jul. 01				III Phase Prodel without SIDA

ANNEXES

1. CREDIT LINES PROPOSAL
2. ARCHITECT'S REPORT ON HOUSING IMPROVEMENTS
3. TABLES ON PRODEL'S FINANCIAL SUSTAINABILITY

ANNEX 1. HOUSING CREDIT LINES

The housing credit line could be an innovative instrument to expand the benefits of the housing component. Today, to grant a loan equivalent of US\$ 1,000 to a beneficiary, PRODEL must have the same amount in cash. With the credit lines this is not the case. These are maximum authorisations of credits which families use gradually. Consequently, at any one time the amount that PRODEL would have disbursed is much less.

With credit lines, the Programme would establish a financial instrument for a series of small housing improvements; which resembles the manner in which poor families progressively upgrade their homes. The plan would have a maximum limit and would be valid for a fixed term. The following example illustrates the idea:

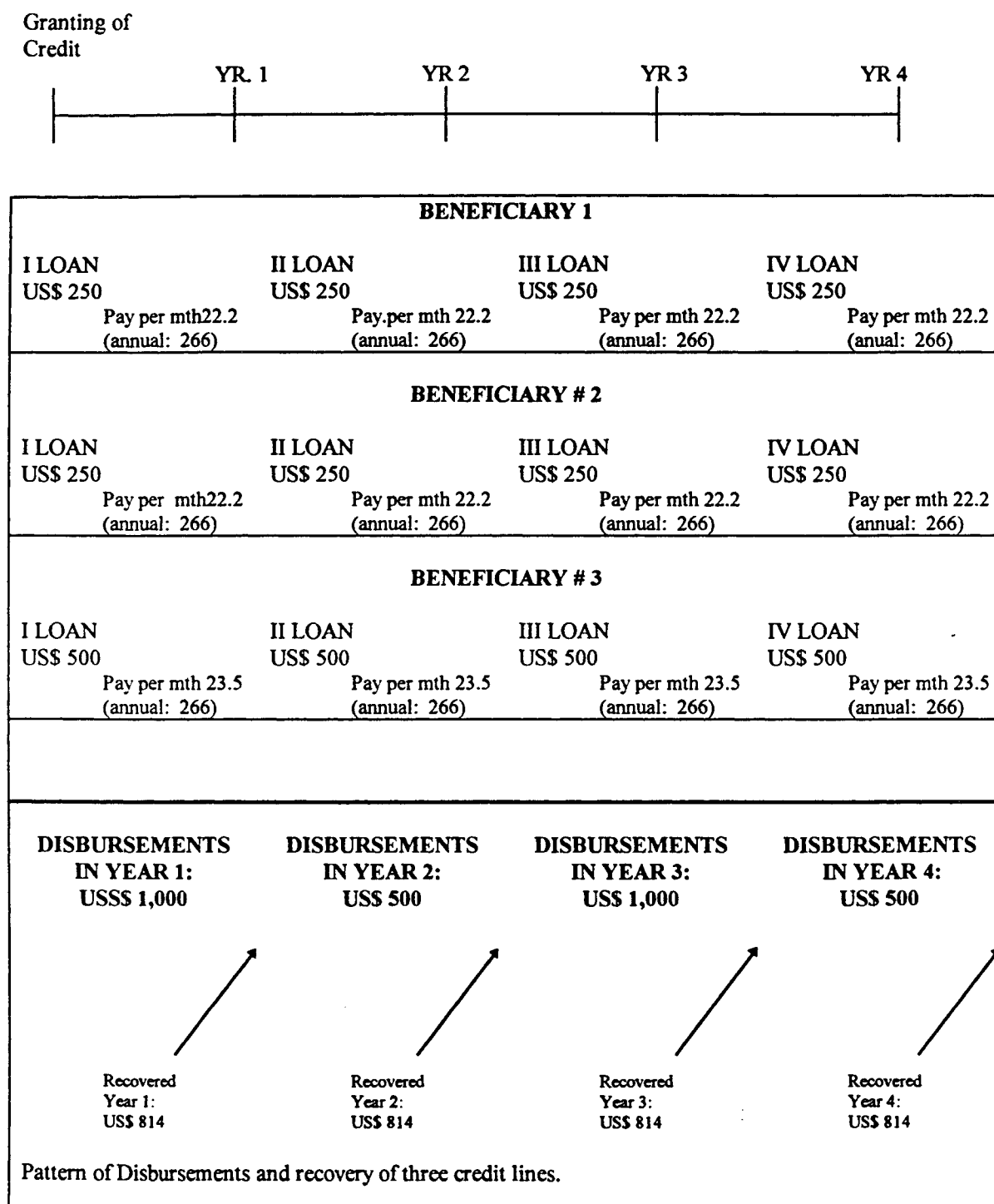
The Programme could grant, for example, three credit lines of US\$ 1,000 in total, each one to three families requiring only US\$ 1,000 instead of awarding one loan of, for example US\$ 1,000, PRODEL would offer the families the option of staggering the loan over 6 to 24 months.

If so wished the interest rate could be higher than the current level (12% on balances plus value maintenance) without negatively affecting the families. Each time the beneficiary repays the loan they would have access to a new one until the credit line was exhausted.

At present, for a US\$ 1,000 loan over four years, at 12% interest plus value maintenance, the borrower pays US\$ 26.30. This is the total earnings of the fund, whereas the Programme could grant three credit lines for US\$ 1,000. Borrower #1 and # 2 would receive a credit line made up of four consecutive credits of US\$ 350, each one for a 12 month term. Each loan would be granted once the previous one had been repaid. The third borrower would receive a credit line made up of two consecutive loans of US\$ 500 each, for a 24 month period and would pay US\$ 23.50 a month, as shown in the following table. With the same resources PRODEL benefits more people and collects more - US\$ 68 a month. The Programme at no point requires more than US\$ 1,000 in cash per year. The essence of these results rest upon the turnover - rotation of funds. In summary, one is dealing with a programme of small short-term credits, in which new disbursements are financed through cost recovery.

This option has a number of advantages for the Programme. First, it would reduce the outstanding loan portfolio, second, it would increase recovery and third, PRODEL would reach more beneficiaries and fourth, it would allow more low-income families (within the Programme target group to participate in PRODEL). Finally it would allow the fund to reduce risk associated with the term of its loans.

CHART 1
SCHEME FOR OPERATING CREDIT LINES



ANEXO 2. REPORTE SOBRE EL MEJORAMIENTO HABITACIONAL EN ESTELÍ / SOMOTO

Verónica Mora

INTRODUCCIÓN

El trabajo de campo se desarrollo los días 18 y 19 de mayo de 1996 en las ciudades de Estelí y Somoto, que se fundamenta en visitas casa por casa, donde se obtuvo información directa de los beneficiarios, encargados de la Asistencia Técnica y de la observación física de las obras. Las viviendas visitadas suman un total de 20, estando ubicadas 12 de estas en Estelí y las restantes 8 en Somoto.

FORTALEZAS

- Se constató que la población hace uso del crédito en la vivienda sin desvío de fondos, lo que implica mucho interés de mejorar las condiciones de su hábitat.
- El periodo y uso del tiempo en la construcción es razonable
- Consciencia y deseos de ayudar del técnico de campo del UTE
- Proyecto puede alcanzar a más beneficiarios
- Mano de obra de buena calidad (tanto pagada como de autoconstrucción)
- Costo de mano de obra es racional

DEBILIDADES

- Falta de personal y recursos (transporte y materiales) del equipo de asistencia técnica de las UTE's
- Falta de evaluación sistemática del trabajo de asistencia por parte de la Alcaldía
- Falta mayoritaria de definición y racionalización del uso del espacio en la vivienda (circulación alta, falta de particiones, ventanas, piso)
- El porcentaje de autoconstrucción es mucho menor (20%), a la contratación de mano de obra para la construcción (80%)
- Materiales de baja calidad, poca supervisión del mismo
- Algunas construcciones no han sido concluidas

RECOMENDACIONES

Equipo de Asistencia Técnica

- La falta de lineamientos y condiciones para el área de supervisión, crea una ruptura entre la obtención del crédito y su uso racional y adecuado. Es recomendable mejorar el apoyo logístico al equipo (transporte, personal y base de datos). Además, si no es posible contar con un equipo interdisciplinario (arquitecto y/o

ingeniero apoyado por un promotor social) es necesario llevar a cabo una capacitación al encargado de conocimientos básicos en ambas ramas (técnico-social).

- Una base de datos arrancaría con un expediente para cada caso, que contenga datos generales, tales como: el estado actual de la vivienda, tipo de materiales y sistema constructivo, número de cuartos, aberturas, necesidades prioritarias, número de personas y hogares etc. Una vez dado el crédito, la bitácora de la construcción en la vivienda, contemplaría tiempo y materiales de construcción, detalles constructivos específicos para el caso, así como cambios realizados en la marcha, lo más ilustrada posible, de tal manera, que se cree una "memoria" de la acción ejecutada. Finalmente, un informe de vivienda terminada, elaborado con participación del beneficiario, revelaría datos cualitativos del mejoramiento, donde se evaluarían el nivel de satisfacción de lo realizado, y cambios que a su juicio ha obtenido con el mejoramiento; pues de haber algún rechazo, es conveniente averiguar el porqué, puesto que puede ser un error repetible y un beneficiario que no acceda a otro crédito. Esta información se debe condensar para su análisis y aprendizaje.
- El material de apoyo al técnico, podría contemplar la cartilla oficial de construcción, manuales ilustrativos de diferentes sistemas, normativas de espacios mínimos, y soluciones arquitectónicas diversas; esto es muy útil para mantenerse al día e innovar nuevas respuestas a las problemáticas en nuestro contexto. Intercambios con organismos que realizan trabajos similares, resulta muy importante para conocer otras experiencias.

Mano de Obra

- La inclusión de autoconstrucción en el sistema de crédito, no ha sido muy efectiva; los usuarios pagan mano de obra, ya con ahorros o con otro crédito (hay evidencias que las familias han conseguido otros fondos adicionales), para completar la construcción que desean realizar pues el 100% construye más de lo presupuestado. La autoconstrucción en su mayoría se limita a un trabajo de ayudantía, con cierta participación de la mujer. Es recomendable revisar el sistema de cálculo que el Banco Popular esta utilizando, pues se observa mayor inversión de los usuarios en comparación, por lo tanto, surge la inquietud sobre el hecho de que tal vez los montos otorgados son bajos y no refleja exactamente la capacidad de pago de la familia.
- La autoconstrucción total se da en 4 casos del total de 20 acciones (20%), existiendo colaboración como ayudantes en 5 casos (25%), para un total de 9 casos (45%) con participación del poblador, sin obviar su administración y supervisión, muy importante en la construcción; el resultado indirecto son nociones sobre la construcción que les contribuye a mejorar en la próxima inversión. Retomar la autoconstrucción es una forma de bajar costos, pero es prudente realizar breves

capacitaciones para orientar técnicamente, además de aumentar la supervisión que evita riesgos, desperdicios y mala calidad de la obra.

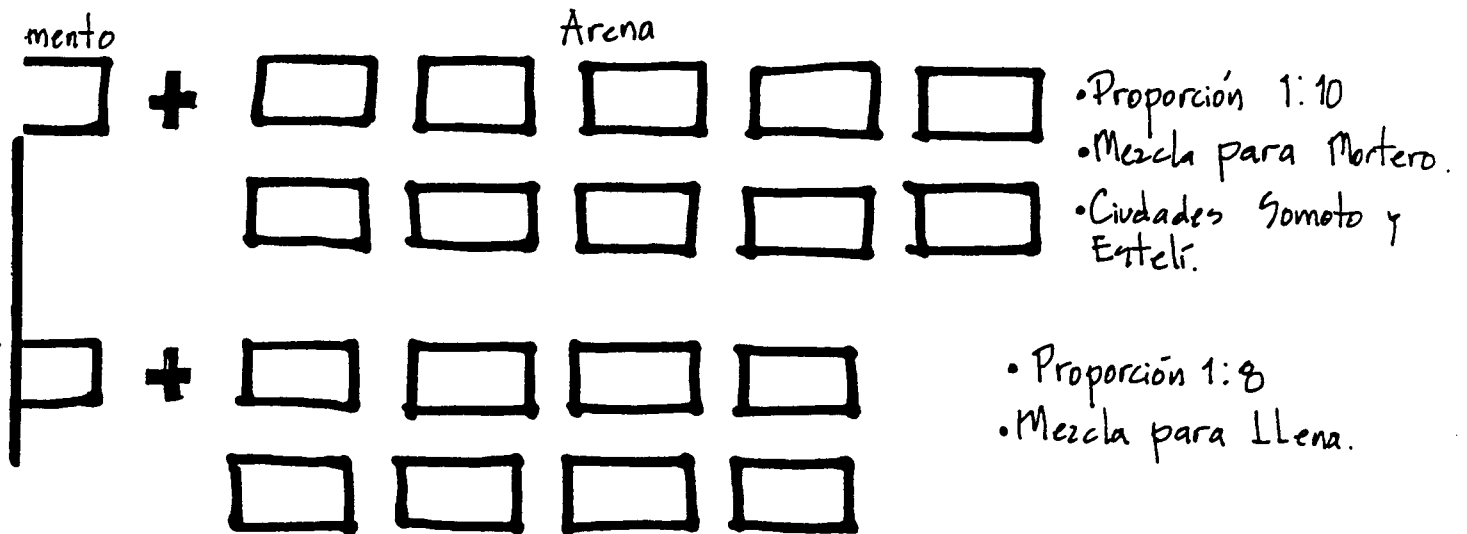
Materiales y Mezclas

- La calidad de materiales así como las de mezclas son pobres, resultando una construcción menos durable; se debe explicar en los talleres a beneficiarios las ventajas de usar buenos materiales, mezclas, y supervisión más constante.
- Los ladrillos presentan deformidad y mal acabados en las esquinas, así como falta de secado lo que los vuelve quebradizos; los bloques son hechos de forma artesanal, comprimiéndolos en un molde, sin la presión necesaria dada por las máquinas por lo que su resistencia es mucho menor.
- Las mezclas por su parte tienen proporciones muy altas, se encontró hasta de 1:8 (relación cemento-arena) para llenas y de 1:10 para mortero, lo mínimo sería 1:4 para mezclas y 1:6 para mezclas; sin embargo, debe agregarse un aglomerante o piedrín que contribuya a la adherencia; este es omitido debido a su alto costo. Se podría efectuar un estudio de los materiales que cuenta la zona, para conseguir un sustituto de este material; para tal efecto, la mezcla podría efectuarse de 1:3:6 (relación cemento-aglomerado-arena) en la que ya se aumenta la cantidad de arena por ser una mezcla más resistente; se recomienda la misma proporción para mortero, esta última mezcla es menospreciada por utilizarse en uniones de ladrillos o bloques, sin embargo, tiene mucha importancia, pues contribuye al trabajo armonioso y correcto de la vivienda. (Ver gráfico 1)
- El utilizar arena de río es perjudicial si no es correctamente lavada, pues contiene impurezas; de igual forma la arena de barrancos, posee tierra, la que debe ser eliminada; este último tipo es más difícil de limpiar, por lo que se recomienda la arena de río. Cualquier arena debe ser pasada por una malla No 4, para eliminar granulometría mayor a la conveniente.

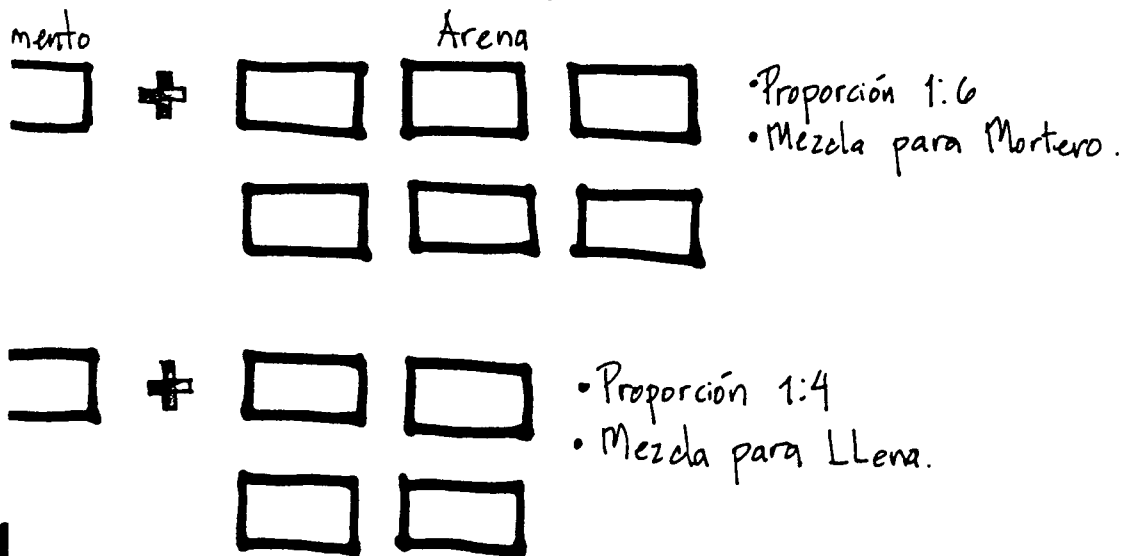
La Construcción

- Los problemas constructivos se basan en baja calidad de materiales y mezclas, no siendo así en la estructura de la vivienda, que en la generalidad la contempla de forma aceptable; todos poseen fundaciones, columnas y viga corona de 3 a 4 elementos de refuerzo. Sólo se dio un caso en que la vivienda no tenía columnas en una esquina, pero esto es fácil de solucionar, picándola y colocando la columna. Es menester explicar, que una mayor supervisión, puede mejorar cualquier detalle para lograr una estructura más adecuada, pues la mano de obra tiene calidad.
- La calidad de materiales y soluciones de los techos es muy buena; en 4 casos, se hizo uso de "cerchas" de madera, que permite cubrir grandes claros libres de apoyos y sin pandeos de la madera. Las uniones realizadas fueron excelente, con

MEZCLAS POBRES:



MEZCLAS MÁS ADECUADAS:



MEZCLA MÁS RECOMENDADA:

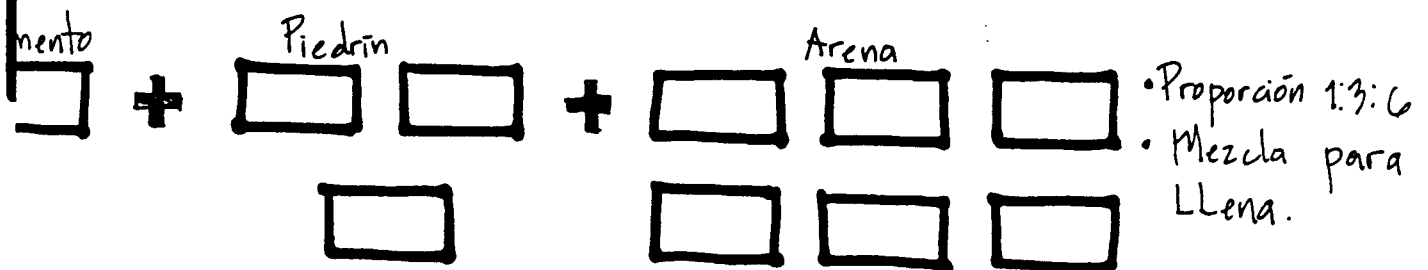


GRÁFICO N° 1

traslapes efectivos; el estado de los techos es bueno, lo que indica buen estado del cubierta de zinc.

- Un caso interesante de retomar, es el reforzamiento en paredes de una casa en adobe en la ciudad de Somoto, la que se realizó enchapándola con ladrillos de barro cocido; esto además de brindar seguridad contra la intemperie, resulta en un excelente acabado para la vivienda (Véase fotos #1). Así mismo, en una casa nueva de adobe, se recubrió con piedra bolón la parte inferior de las paredes, para evitar humedad y deslizamientos por corrientes de agua; esto evitó la erosión y la perforación de avispas en el adobe (Véase foto # 2). De igual forma se observó la deficiencia de trabajar con dos calidades de adobes en otra vivienda de Somoto, puesto que una pared se deteriora más rápido que la otra, por lo que su dueño colocó un poco de cemento sin lograr grandes resultados.
- El tiempo de construcción es adecuado, sin olvidar que es un aproximado de tiempo y no un control de avance de obra exacto.

El Diseño

- En lo funcional, se observa un alto consumo de espacio por circulación, producto de colocar las puertas en posiciones casi o completamente opuestas. Se recomienda la circulación lineal que conecte todos los ambientes y reduce este espacio perdido para realizar cualquier actividad. Es importante modular los espacios a construirse así como ampliar y/o completar las viviendas con materiales acordes a la ya existente, ya que esto permite que la estructura de la vivienda trabaje mejor, ayuda a definir espacios y evita desperdicios de materiales por cortarlos. (Véase gráfico 2).
- La falta de incluir las ventanas en el plan constructivo es un problema, sobre todo si posteriormente se piensa en abrirlas en las paredes ya construidas, lo que se pudo haber previsto con anterioridad. En otros casos, se ve la tendencia a dejar una o dos aberturas para ventana, como parte de la fachada de la vivienda, pero son muy pequeñas. Sin embargo, existen buenos ejemplos como el de una vivienda en Somoto, donde la ventana se encuentra justo donde se cocina, permitiendo luz y ventilación, con medianas dimensiones (Véase foto 3). Así mismo, el uso de o bloques decorativos, crea "respiraderos" en el que circula aire. Como una norma para la cantidad de aberturas, se dispone de 1/3 de la longitud de paredes a construir para ventanas y puertas en la vivienda, su ubicación corresponderá a la actividad que se realice en un espacio (en la sala puede ser alta y ancha, mientras que el baño debe ser pequeña y elevada) y la orientación del sol, puesto que hacia el sur y oeste deben ser más pequeñas o con elementos que permiten una entrada de luz difusa. (Véase gráfico 3)
- Las paredes en general son bajas por lo que las ampliaciones son construidas de forma independiente, con serios conflictos en uniones de techos, causando

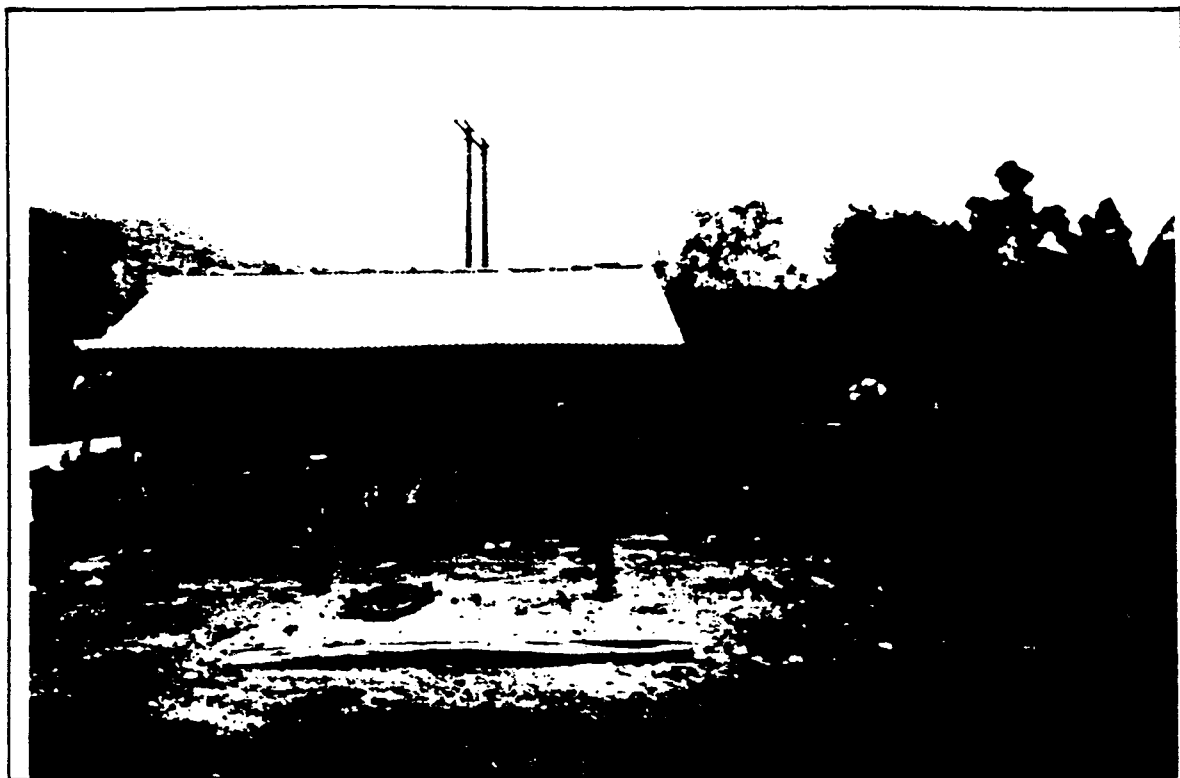


FOTO # 1 VIVIENDA DE ADOBE ENCHAPADA DE LADRILLOS DE BARRO: SOMOTO



FOTO # 2: FALDA DE PIEDRA BOLON EN VIVIENDA DE ADOBE: UN EXCELENTE METODO PARA EVITAR FILTRACION DE AGUA Y EROSION DE LOS ADOBES: SOMOTO

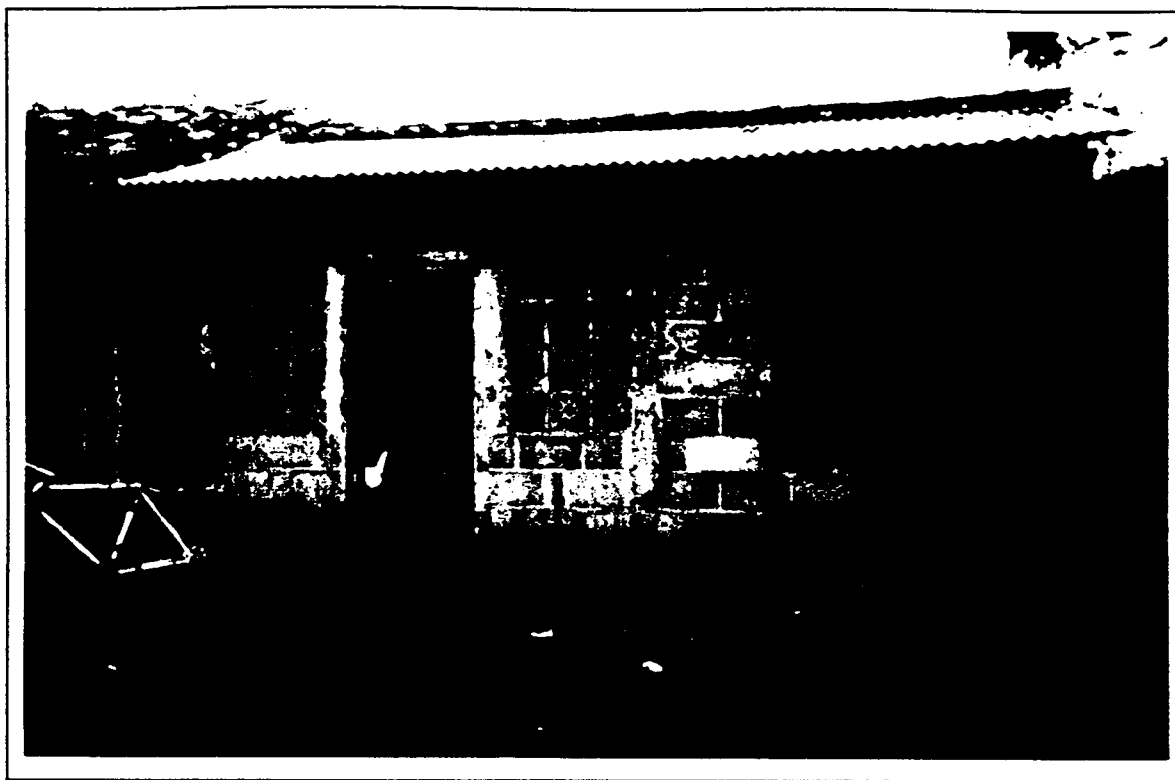


FOTO # 3 USO DE BLOQUES DECORATIVOS COMO FORMA DE VENTILACION E ILUMINACION DIFUSA:
SOMOTO

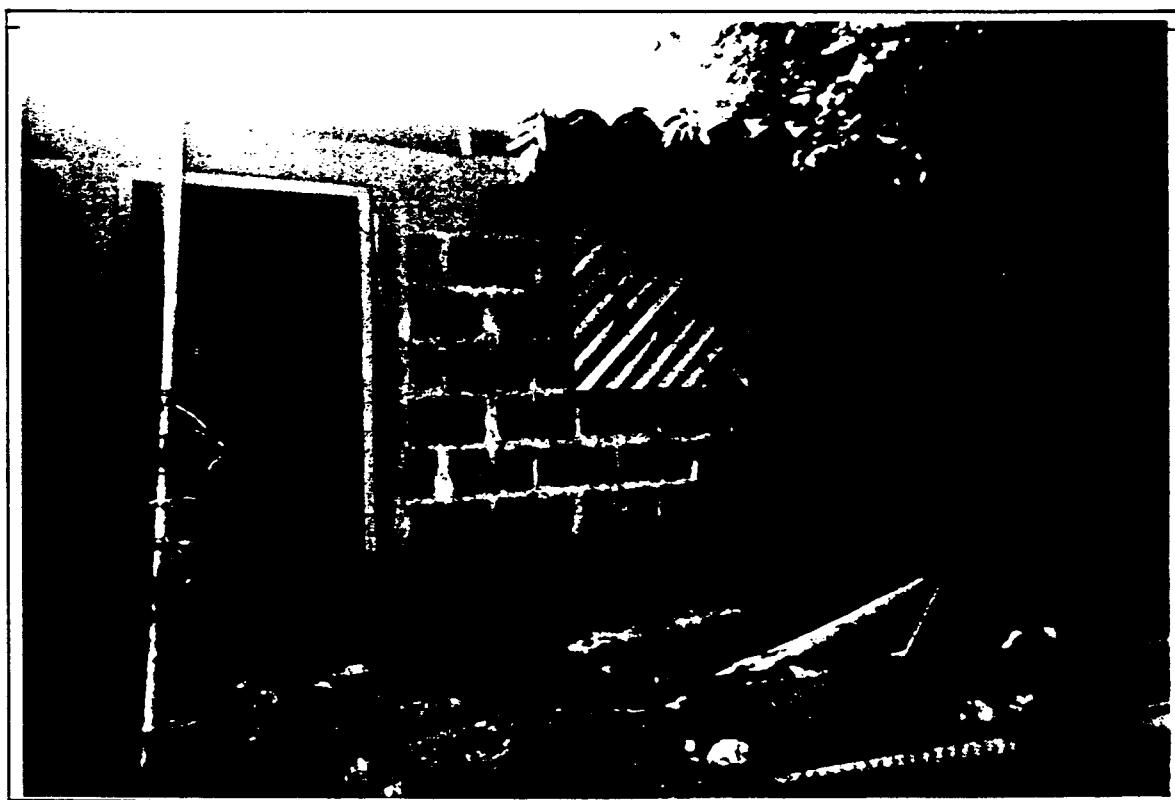
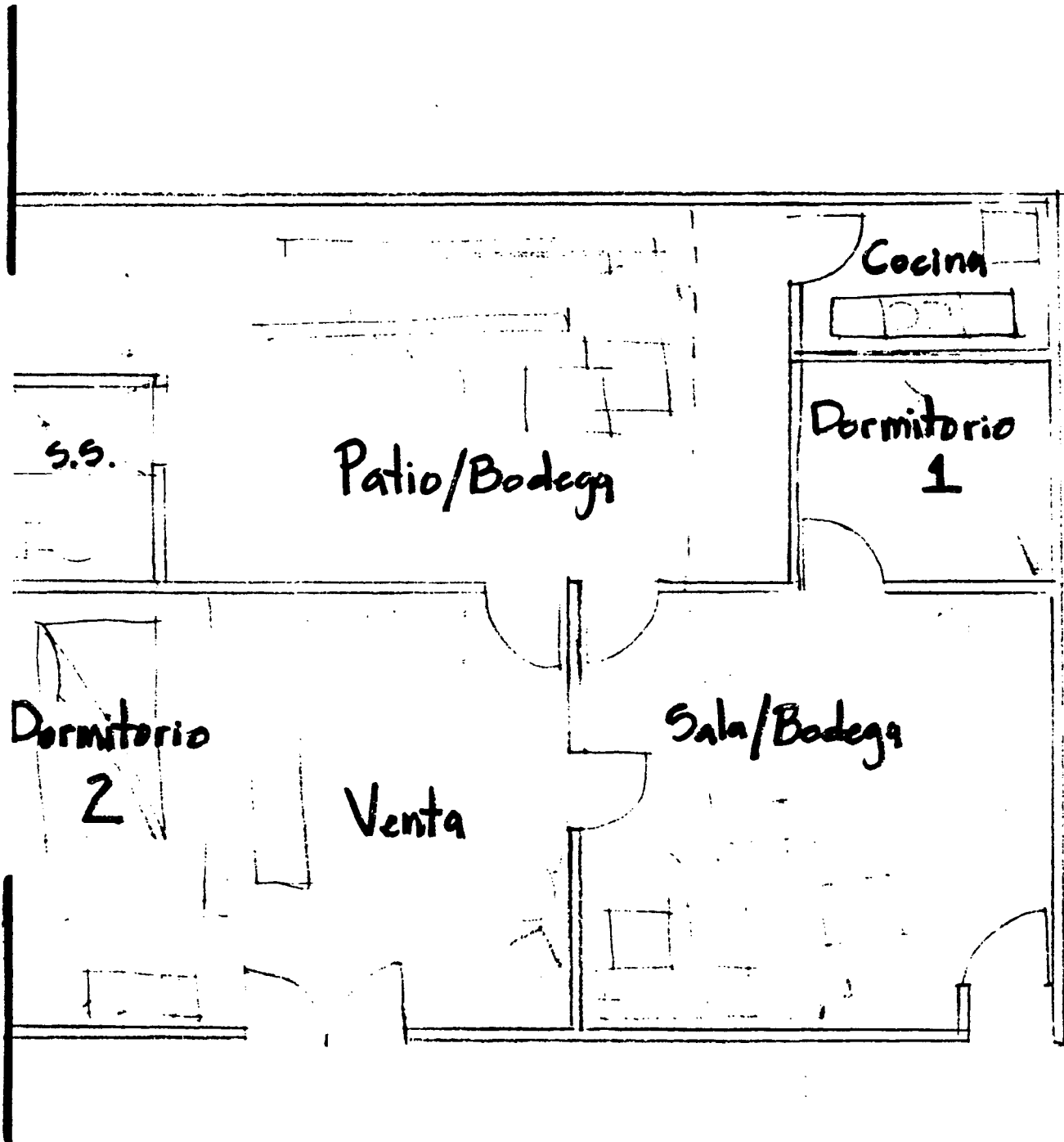


FOTO # 4: COCINA SEPARADA DE LA VIVIENDA MAS ESPACIOS VENTILADOS Y CON MEJORES
ACABADOS: SOMOTO

**MEJORAR UBICACIÓN DE LOS AMBIENTES A TRAVÉS DE ESPACIOS
MODULADOS EN LA VIVIENDA**



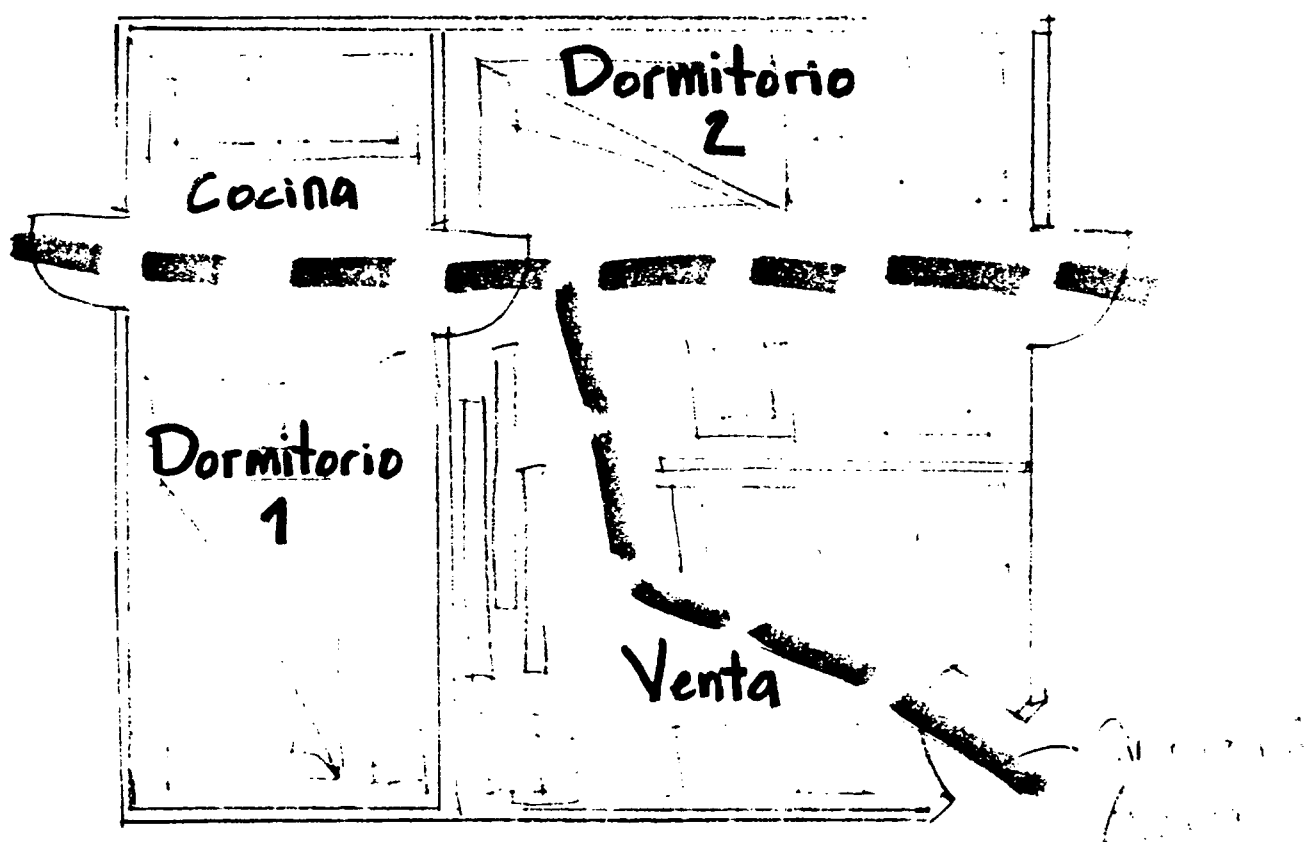
SITUACIÓN ACTUAL

Vivienda en Estelí

Acción Ejecutada: construcción de sala, que es la venta actual, inodoro y baño.

Monto Utilizado: C\$14,000

MEJORAR UBICACIÓN CON UNA CIRCULACIÓN LINEAL



SITUACIÓN ACTUAL

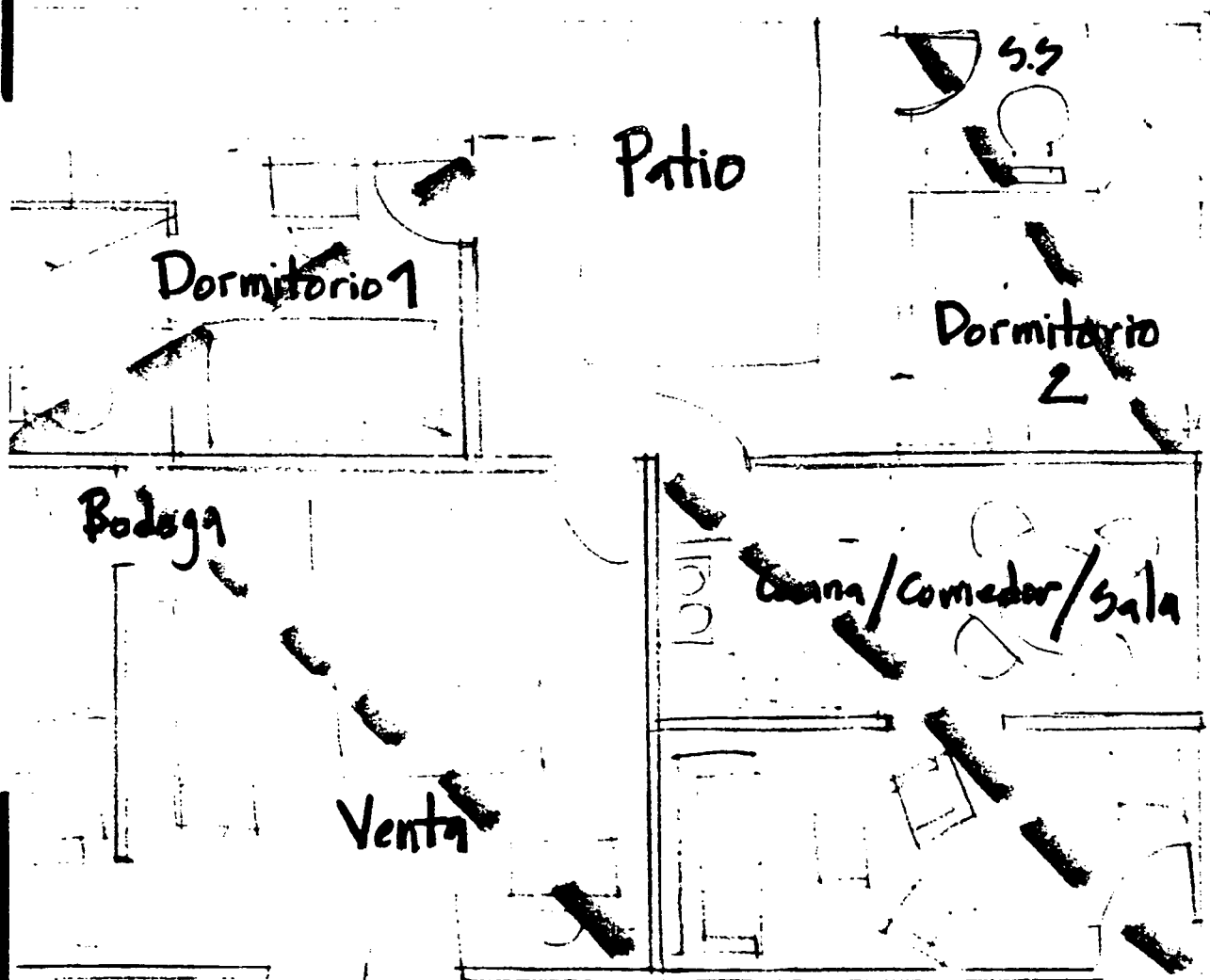
Vivienda en Estelí

Acción Ejecutada: reparar techo y construir cocina y dormitorio.

Monto Utilizado: C\$6,000

GRAFICO No 2

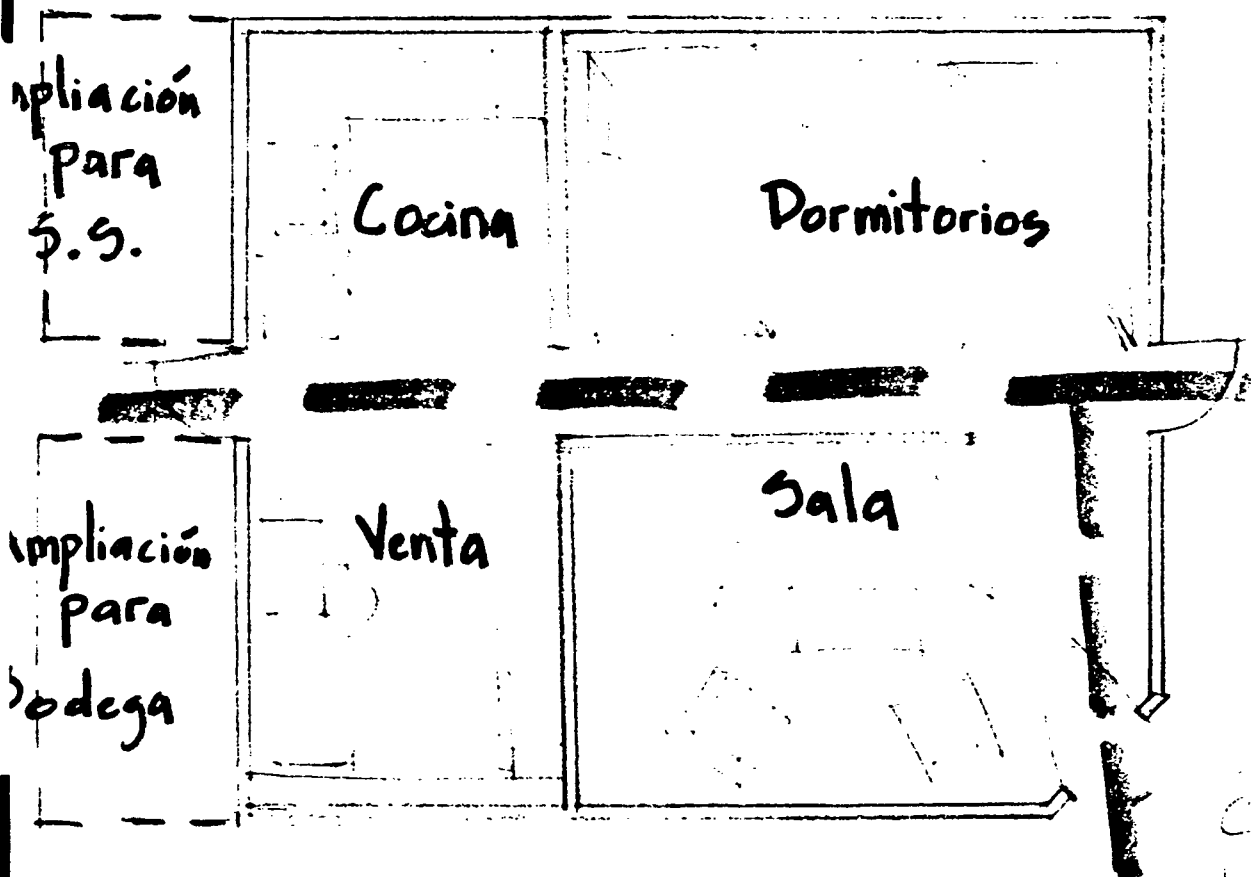
**MEJORAR UBICACIÓN DE LOS AMBIENTES A TRAVÉS DE ESPACIOS
MODULADOS EN LA VIVIENDA**



PROPUESTA

Espacios modulados definen mejor los ambientes públicos : venta y sala tienen iguales módulos; dormitorio y baño iguales módulos.

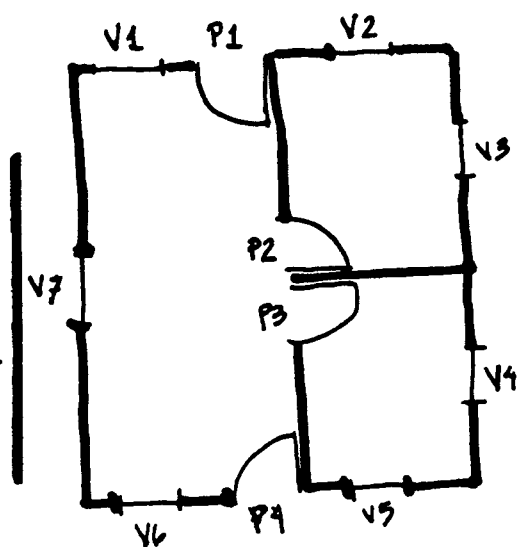
MEJORAR UBICACIÓN CON UNA CIRCULACIÓN LINEAL



PROPUESTA

La circulación lineal permite acceder a varios espacios de la vivienda desde un mismo corredor o pasillo. La distribución de áreas por ambientes públicos y privados contribuye a conseguir esta funcionalidad del espacio.

GRAFICO No 2



$$V1 + V2 + V3 + V4 + V5 + V6 + V7$$

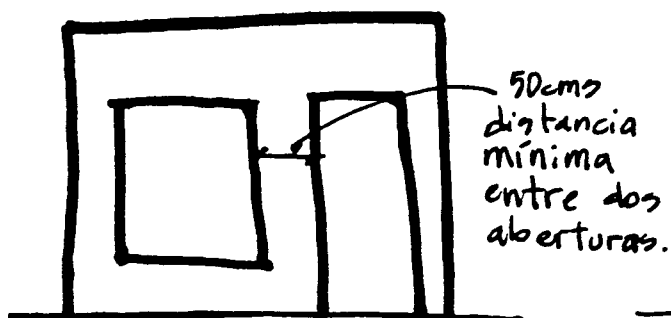
$$+ P1 + P2 + P3 + P4$$



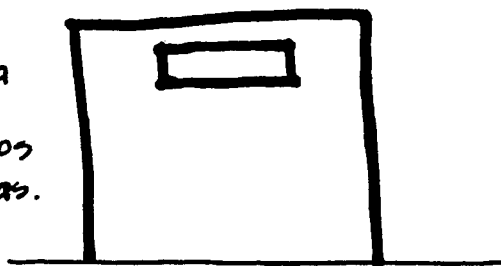
$\frac{1}{3}$ de longitud de muros.

NORMATIVA
PARA NUMERO
DE VENTANAS

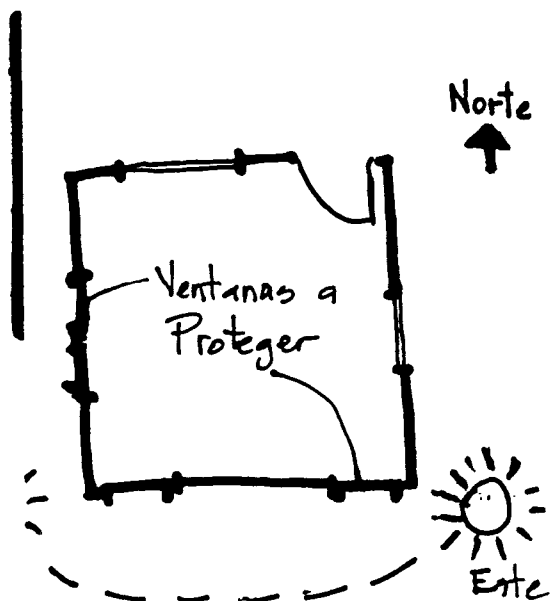
TIPO DE VENTANAS
SEGÚN AMBIENTE



Ventana Para Area Pública



Respiradero para baño.



LAS ABERTURAS Y
SU POSICIÓN CON EL SOL

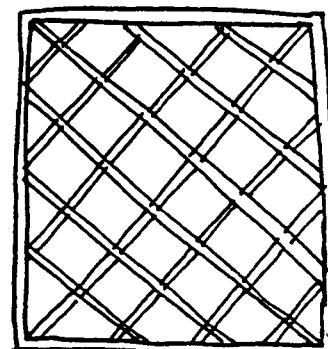
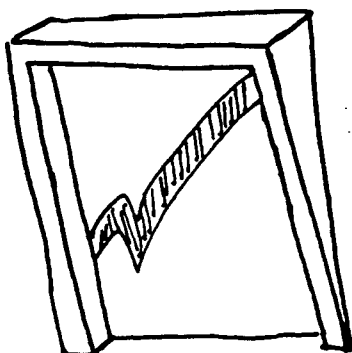


GRAFICO Nº 3

filtraciones de lluvia. Dichos conflictos surgen por ser alturas diferentes de techos, creándose huecos sin tapar, o bien, por pendientes diferentes en los que no hay empalmes de las ondas de cubiertas, filtrándose la lluvia. Se recomienda levantar paredes con una altura mínima de 2.50mts y continuar la forma del techo existente, o por otro lado, realizar los empalmes de ampliaciones de forma diagonal, que permite empalmes más precisos, tal y como se solucionó en una vivienda de Somoto, creándose la llamada "limaholla" (Véase gráfico 4).

- La cocina se encuentra retirada del resto de la vivienda en muchos casos, ya que se utiliza cocina de leña. Es recomendable reemplazar los fogones por cocinas de gas, en los mejores casos, o bien con estufas mejoradas, que eviten el desperdicio del calor y dirigen el humo fuera de la vivienda desde el techo (Véase gráfico 5); de esta manera se pueden integrar mejor a la vivienda existente, tomando en cuenta la dirección del viento, para evitar que el humo desde el techo penetre a la vivienda.

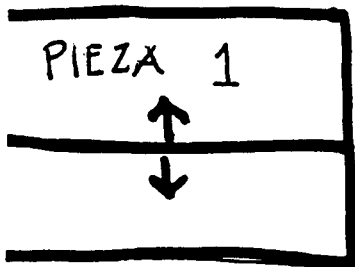
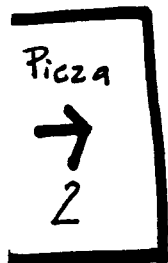
Hay tendencia a clausurar la cocina en cuatro paredes y con poca o ninguna ventilación, existe un caso en que no fue terminada, ni orientada la disposición de puertas y ventanas, quedando un ambiente oscuro, con mucha circulación e incompleto. En otra vivienda, en cambio, construyen la cocina en cuatro paredes, pero mucho más amplia y con ventilación difusa, lograda por rejillas de madera, que le da un buen acabado y utilización del vano. (Véase foto 4). Se recomienda construir la cocina como parte integrante del área de comedor, separadas con una partición baja, que puede ser utilizada como mesa de trabajo o lavatrastos en la cocina, y/o como desayunador en el área de comedor. (Véase gráfico 6)

- Las áreas para baño se encuentran desligadas del resto de la casa, por lo que se camina todo el patio para llegar al dormitorio, lugar donde usualmente se realiza la actividad de vestirse; es propicio pensar en el recorrido que realizaremos desde estos dos espacios, los que deben ser resueltos de forma fluida. No resulta nada difícil ubicar una batería sanitaria completa con acceso a la vivienda existente, sólo debemos colocarla de manera que podamos entrar por ella desde una habitación o pasillo de la vivienda (Véase gráfico 7).

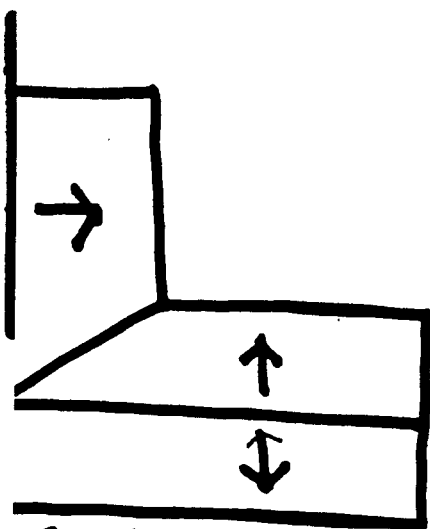
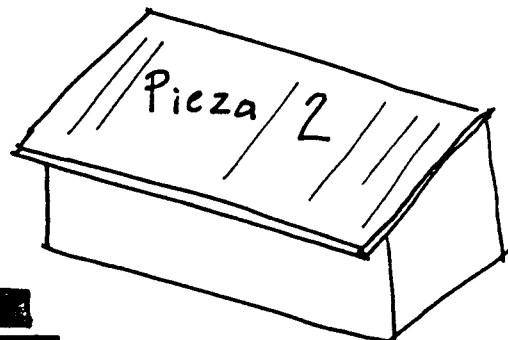
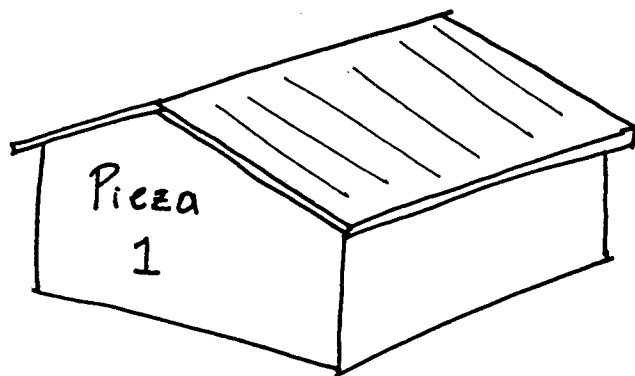
Si bien habrán problemas en algunos casos por falta de espacio y se recurre a un área separada del resto de la vivienda, esta también debe contemplar cierta lógica; tenemos el ejemplo de una vivienda en Estelí, en la que hay que cruzar la ducha o baño para el acceso al inodoro, cosa muy peligrosa por lo húmedo de la ducha y antifuncional para alguien que se baña y otra que desea ir al inodoro (Ver foto 5); la respuesta a esta problemática, la da precisamente un beneficiario de Somoto, que equipó a la batería sanitaria de un vestíbulo, desde el que se puede ir tanto al baño, como al inodoro, y para mayor eficiencia del espacio al lavadero bajo techo (Ver fotos 6 & 7).

Existe otra tendencia marcada, de construir áreas independientes pero juntas, para la ducha y el inodoro; esto no es necesario, pues son dos actividades compatibles

ALTURA MINIMA DE PAREDES



PLANTA



PLANTA

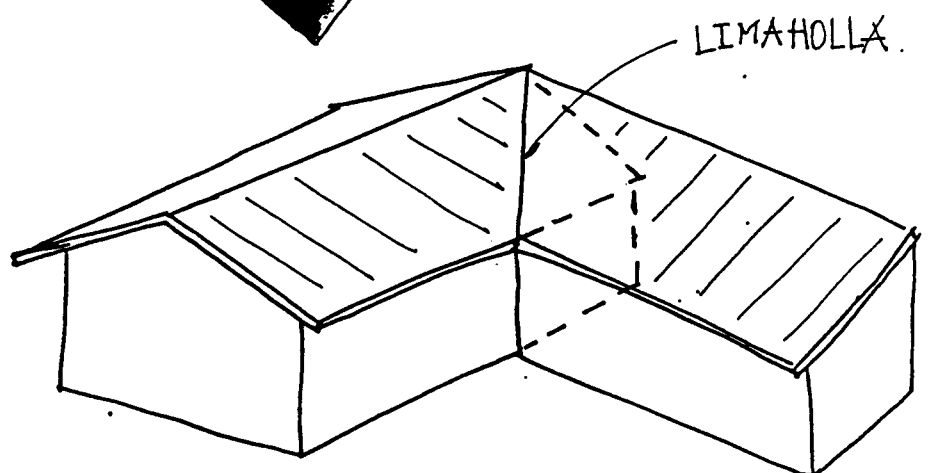
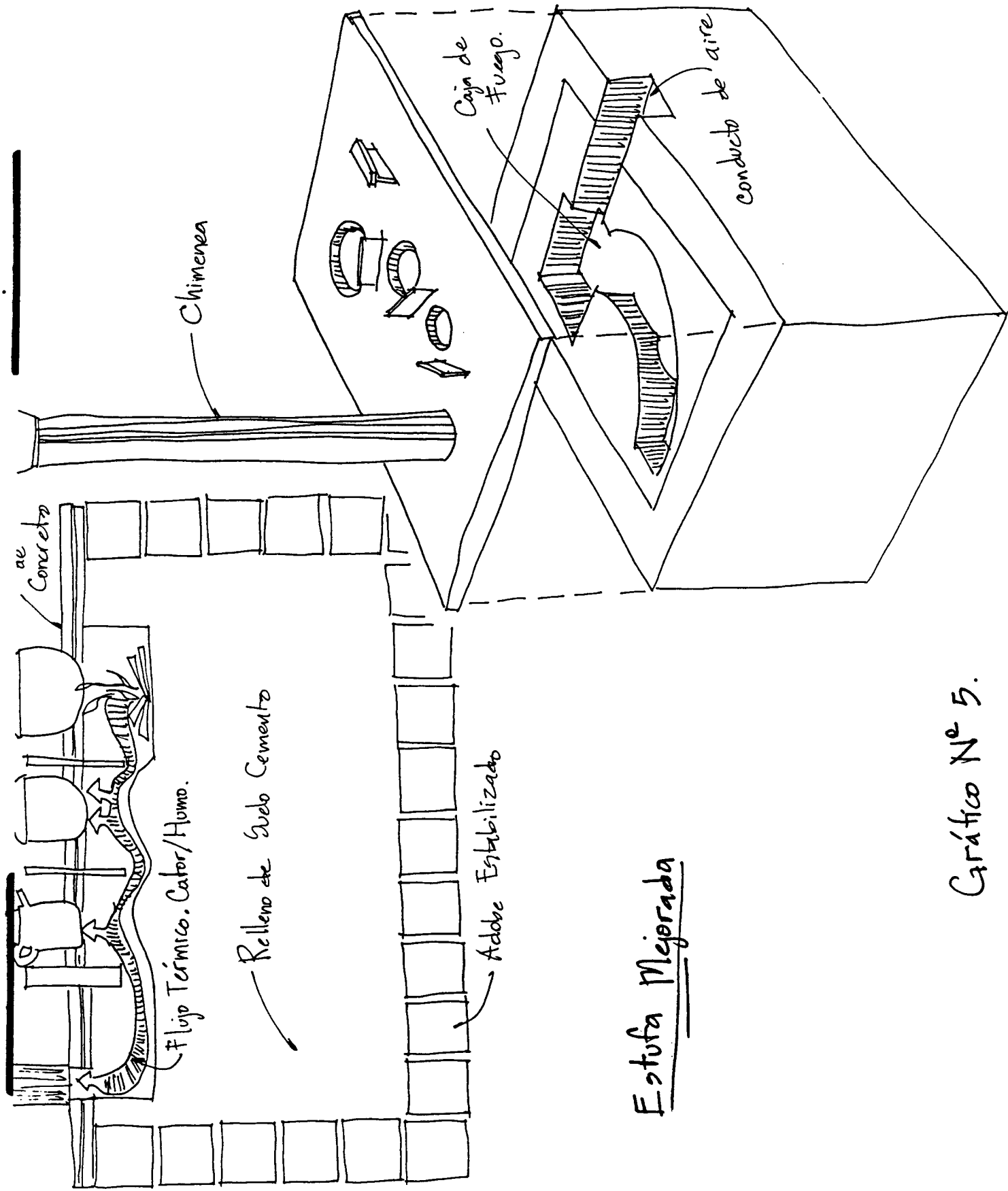
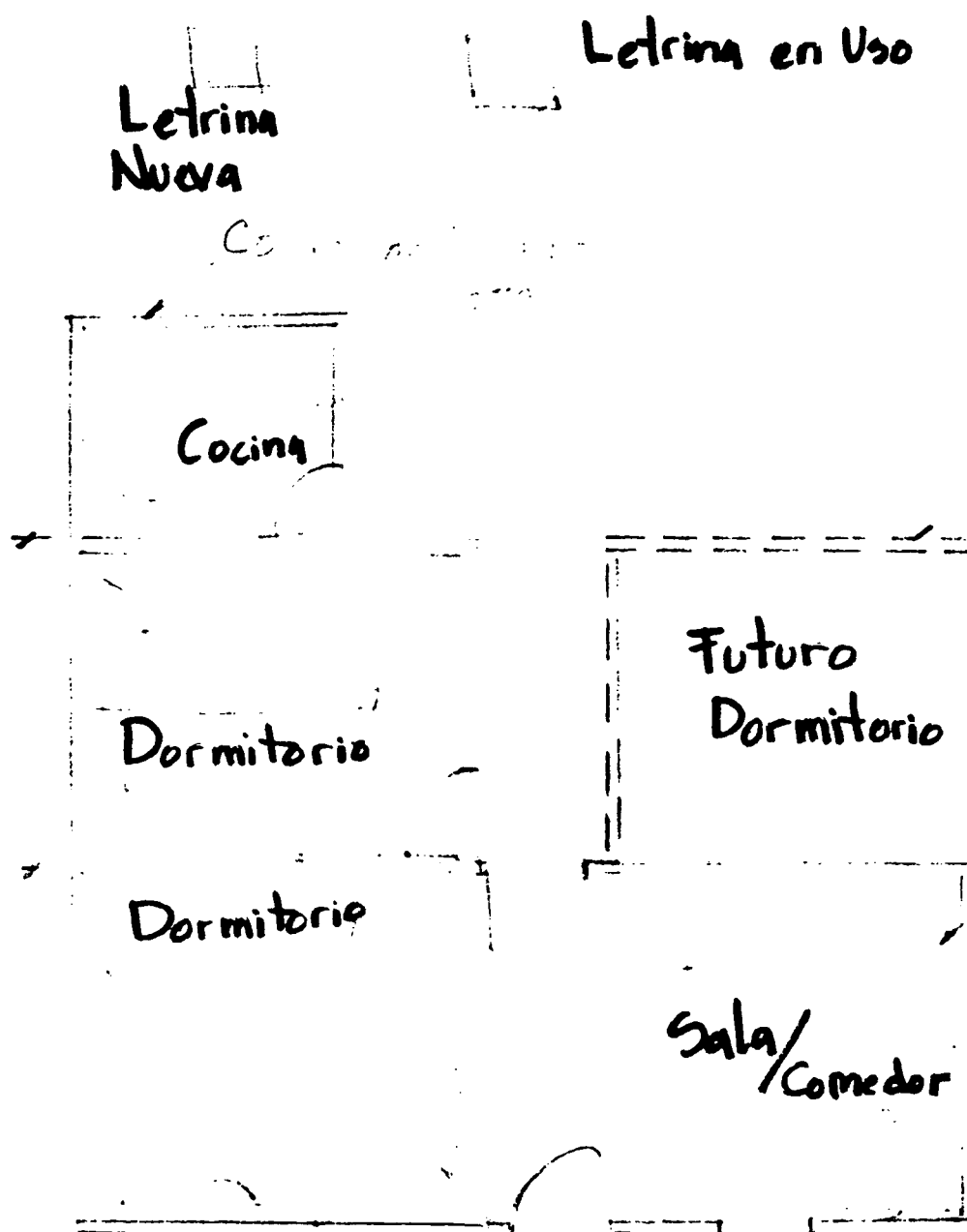


GRAFICO N° 4



Estufa Mejorada

MEJOR UBICACIÓN DE LA COCINA Y COMEDOR EN LA VIVIENDA



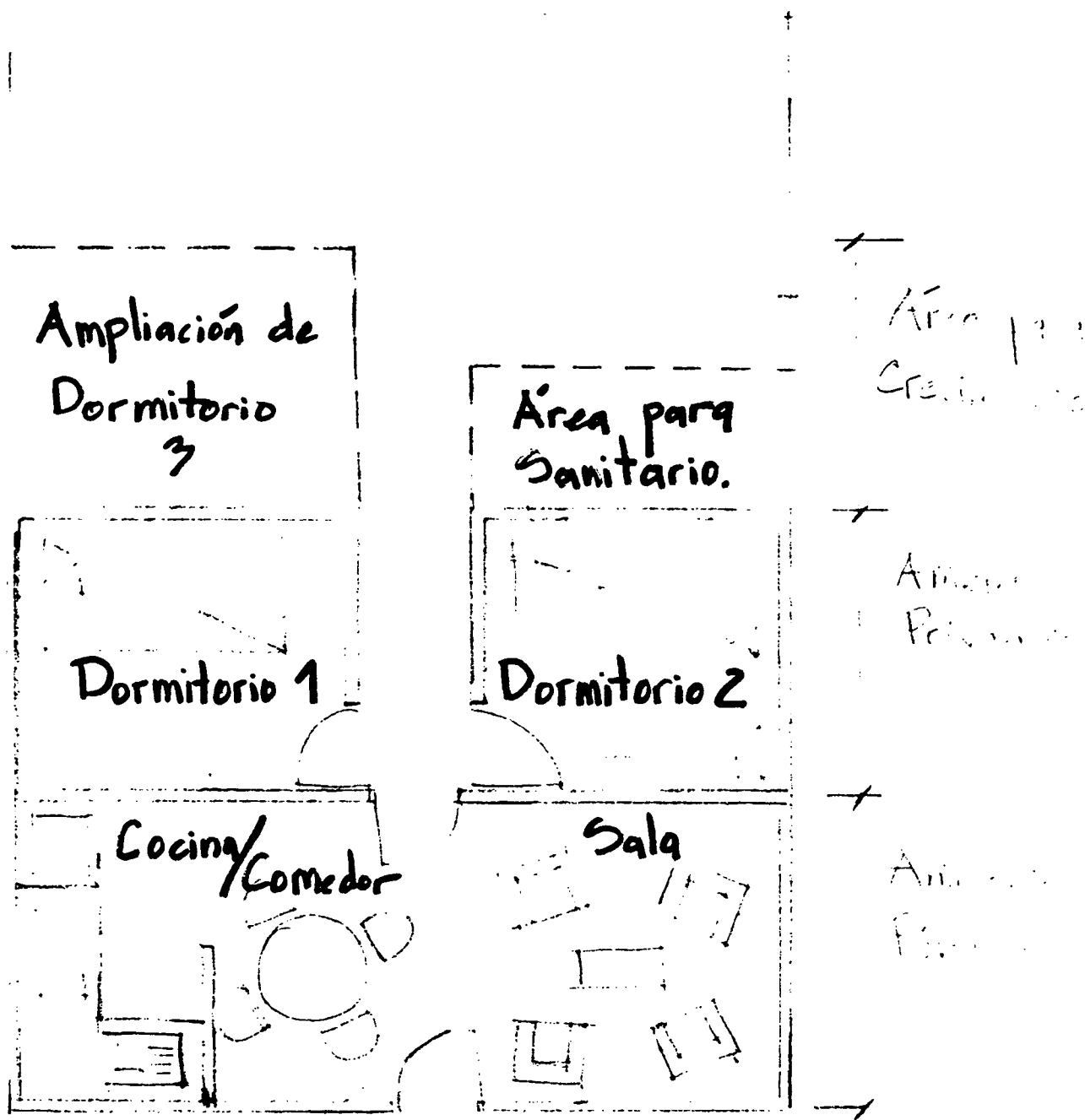
SITUACIÓN ACTUAL

Vivienda en Estelí

Acción Ejecutada: ampliación de un dormitorio.

Monto Utilizado: C\$4,000

MEJOR UBICACIÓN DE LA COCINA Y COMEDOR EN LA VIVIENDA

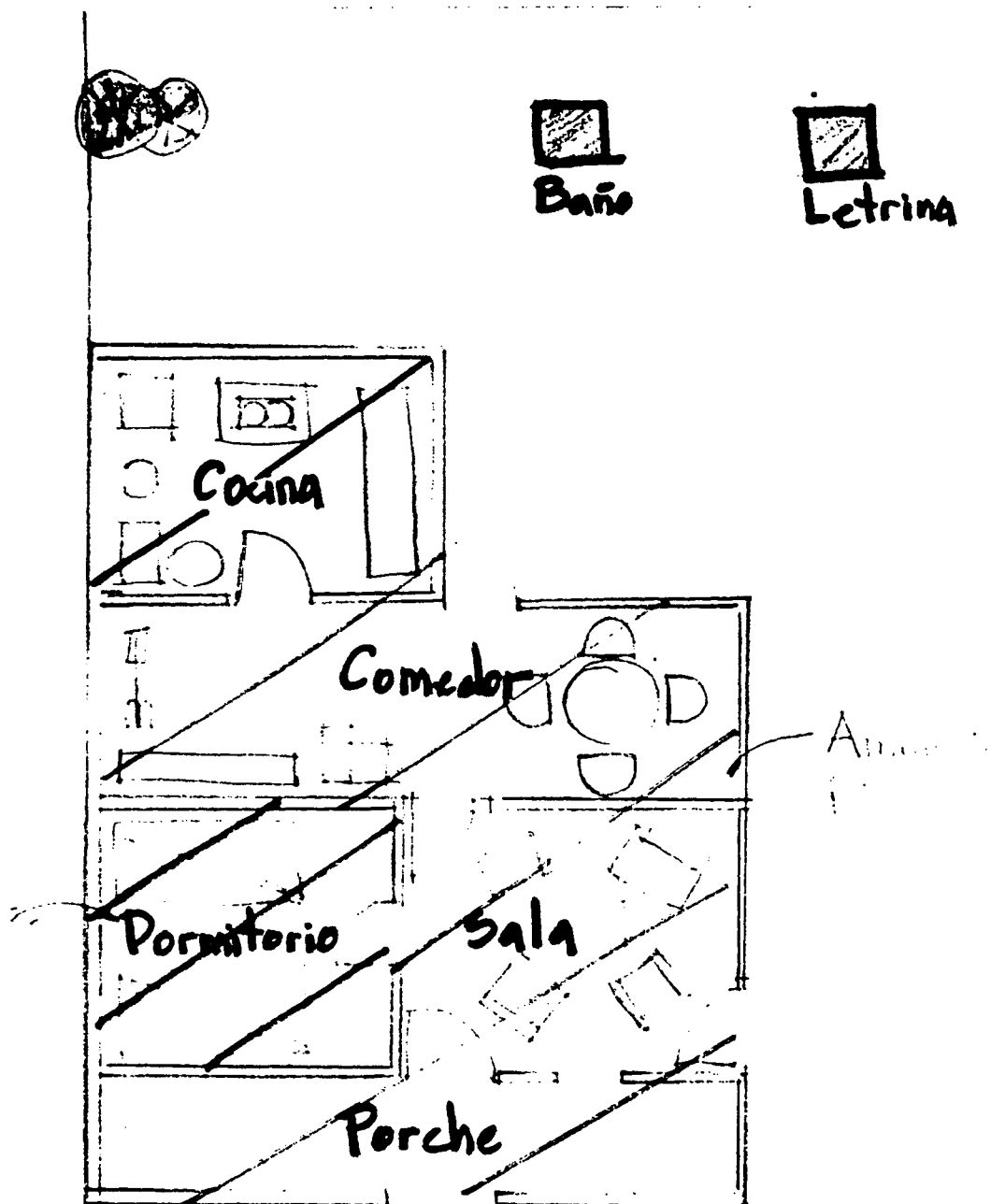


PROPUESTA

Con la construcción de otro dormitorio, el área pública se convierte en un ambiente sin divisiones para: sala, comedor y cocina. Temporalmente en este caso, el área de sala puede ser utilizada como dormitorio hasta la construcción de el mismo.

GRAFICO No 6

MEJORAR UBICACIÓN DE LOS AMBIENTES EN LA VIVIENDA SEGÚN AMBIENTES PÚBLICOS Y PRIVADOS



SITUACIÓN ACTUAL

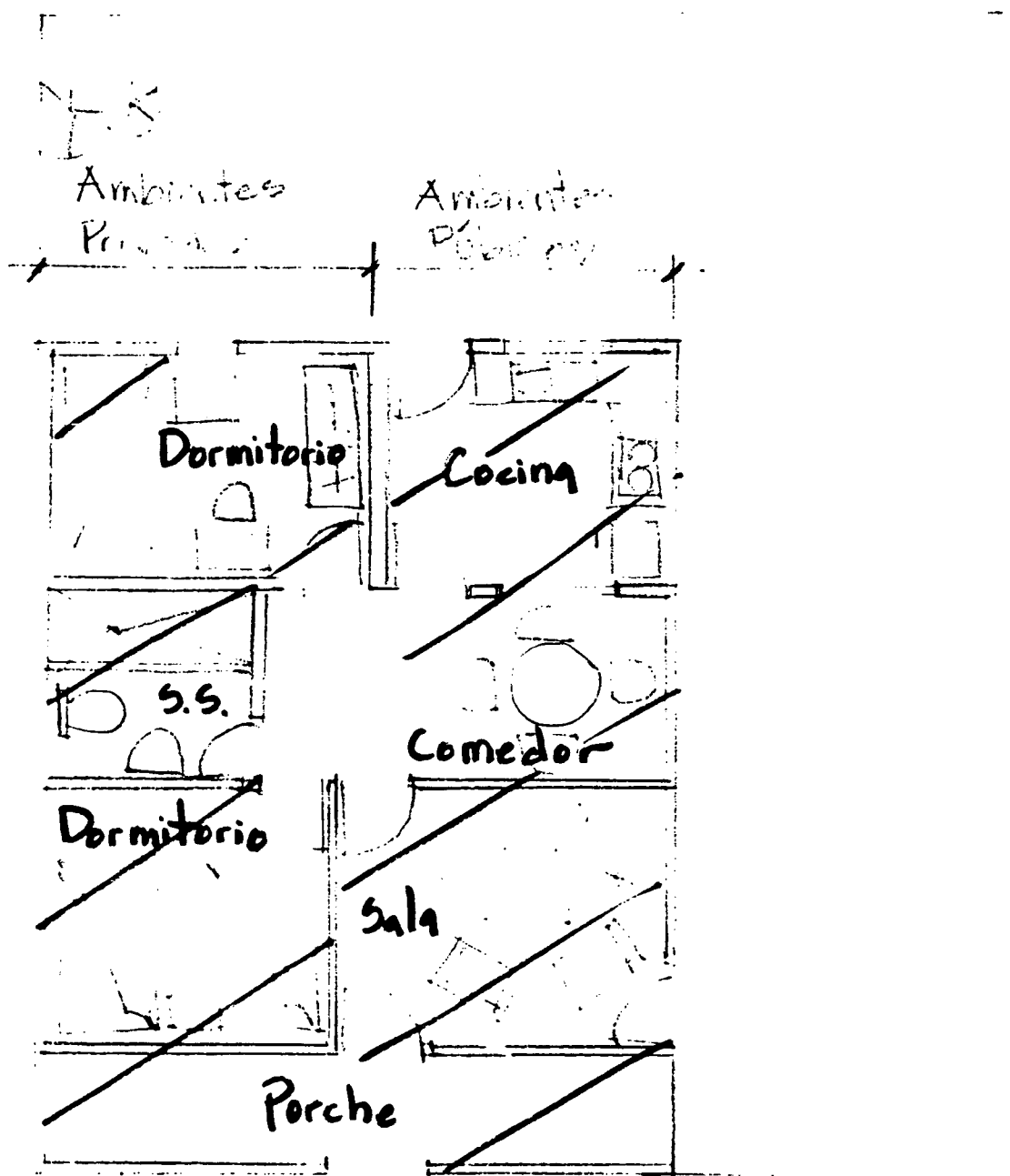
Vivienda en Somoto.

Acción Ejecutada: completar paredes de ladrillo de la vivienda, reparar techo.

Monto Utilizado: C\$11,800

GRAFICO No 7

MEJORAR UBICACIÓN DE LOS AMBIENTES EN LA VIVIENDA SEGÚN AMBIENTES PÚBLICOS Y PRIVADOS



PROPUESTA

Ubicando los ambientes públicos en la mitad de la vivienda, se puede crear un espacio más ordenada y confortable. Con la ampliación de la cocina y construcción de batería sanitaria al interior de la vivienda, se puede lograr un mejor hábitat.

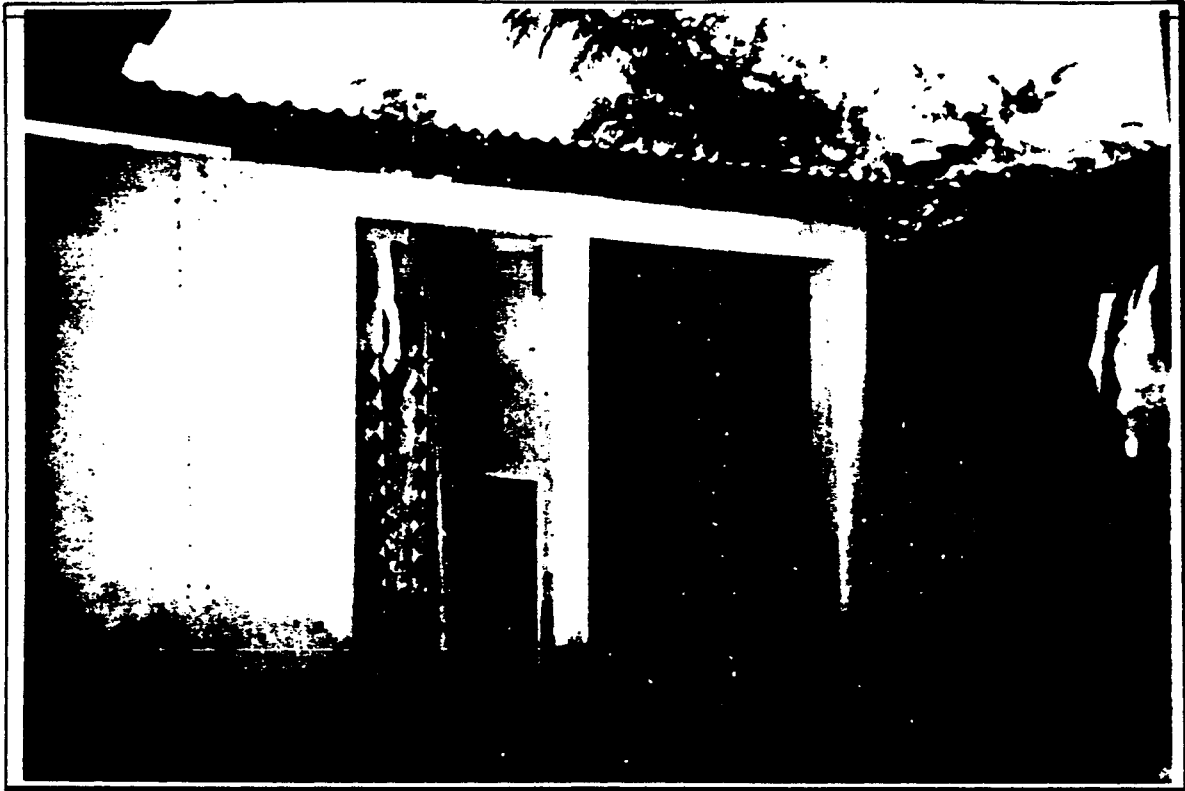


FOTO # 5 VISTA DEL CUARTO DE BANO , INODORO Y LAVANDERIA FUERA DE LA VIVIENDA. NOTESE EL PROBLEMA DE HUMEDAD, VEASE EL ACCESO DIRECTO A LA DUCHA SIN NINGUN VESTIBULO, ESTELI



FOTO # 6 VISTA DEL CUARTO DE BANO, INODORO Y LAVANDERIA; AQUI SE PUEDE APRECIAR EL VESTIBULO DE ACCESO APROVECHADO COMO AREA DE LAVADO: SOMOTO

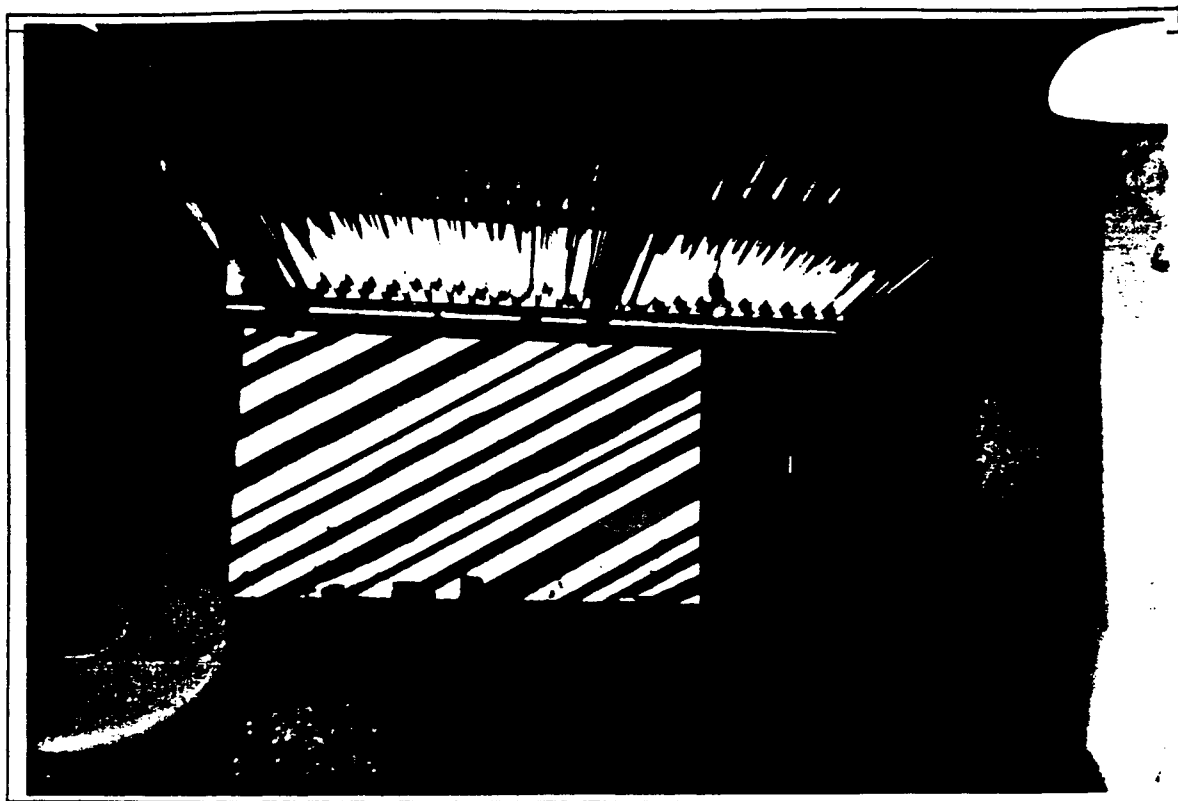


FOTO # 7 ACERCAMIENTO AL CUARTO DE BANO, SE OBSERVA LA ILUMINACION HACIA EL AREA DE LA LAVANDERIA Y EL ACCESO AL BANO E INODORO: SOMOTO

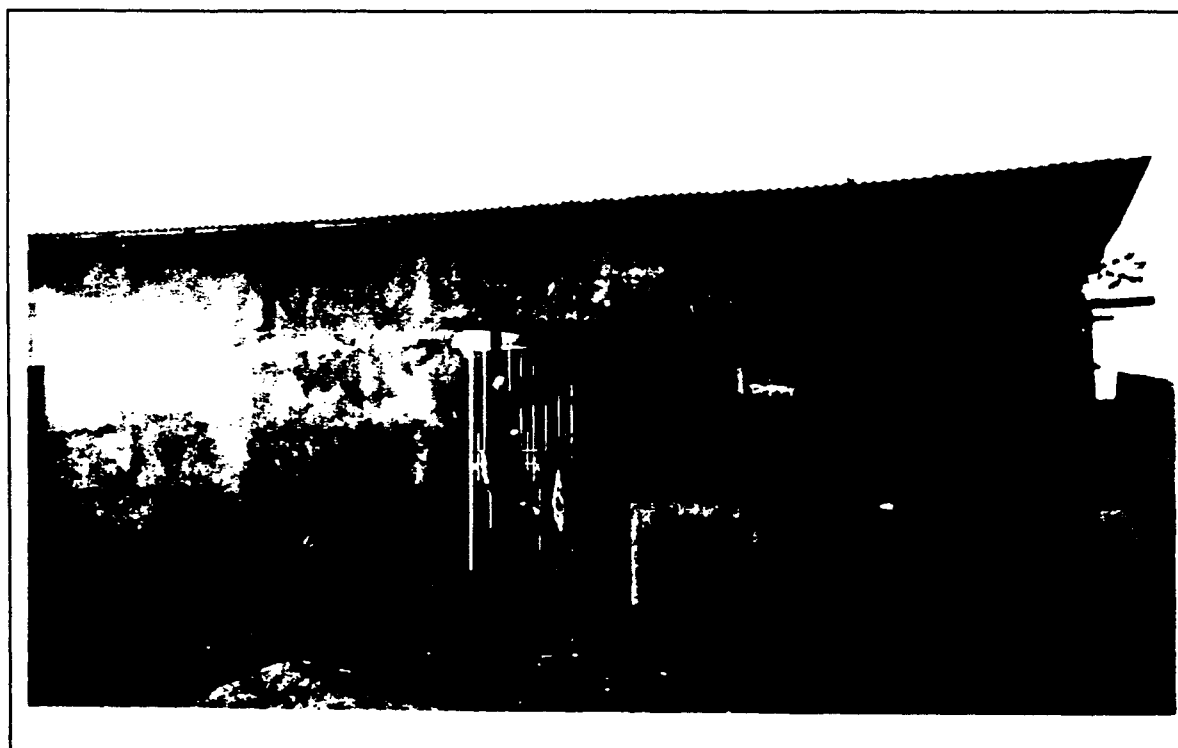
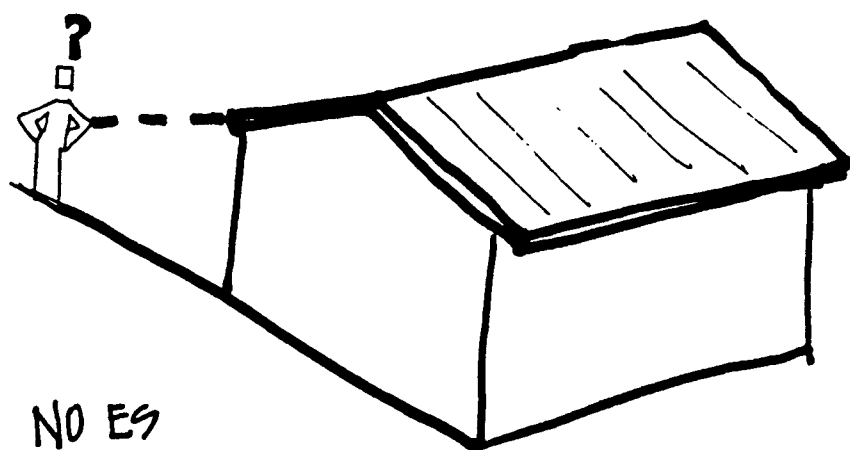
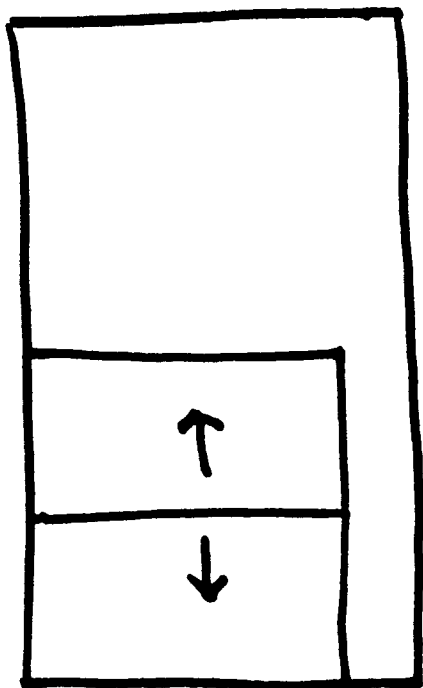


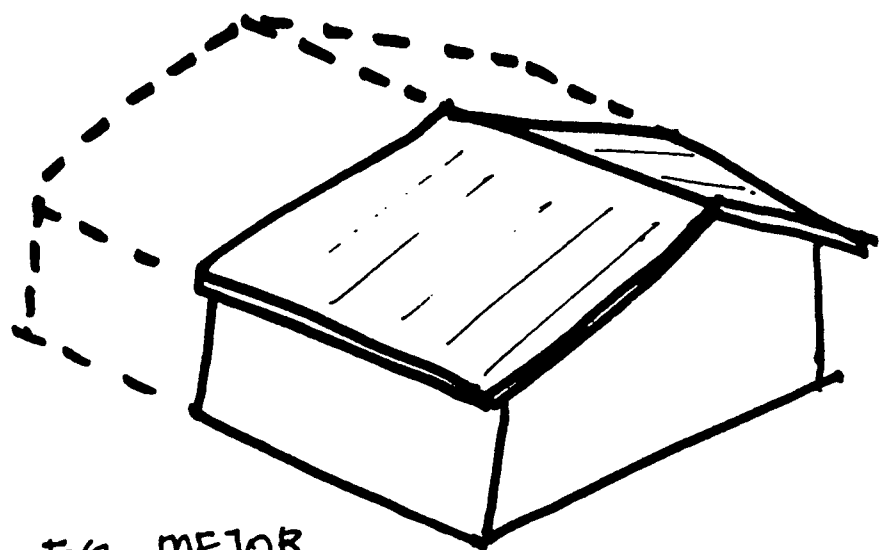
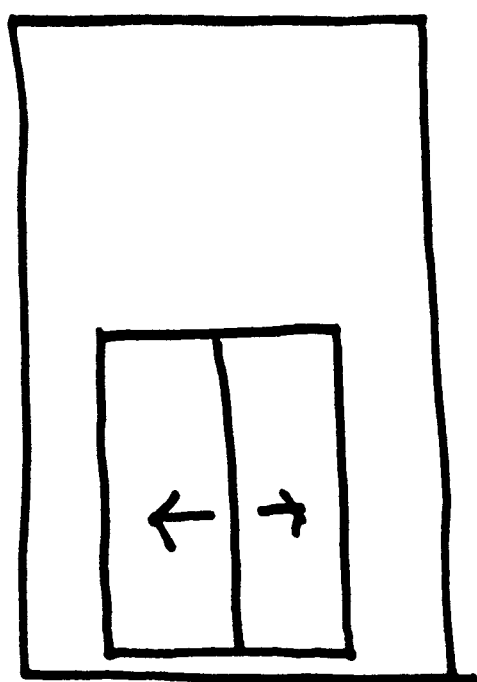
FOTO # 8 VIVIENDA QUE PRESENTA CONSTRUIDA LA PRIMERA PARTE: VEASE LAS DISPOSICIONES DE LAS PUERTAS, YA PREVISTAS PARA LA FUTURA AMPLIACION ASI COMO LA ALTURA DEL TECHO QUE PERMITE COMPLEMENTAR LA OTRA PENDIENTE DEL TECHO SIN DISMINUIR LA ALTURA DE LAS PAREDES FUERA DEL MINIMO: ESTELI

en una misma área sin división sólida, construyéndolos como espacios separados los costos aumentan, ya que se erige una pared más sin ninguna utilidad. La batería sanitaria es una de las partes de mayor costos para la vivienda, pues además de los muebles sanitarios, tuberías y accesorios, requiere de mantenimiento por ser paredes húmedas; hay también que ventilarlas adecuadamente a través de respiraderos (o sea aberturas pequeñas y elevadas) y dejar un tubo de evacuación de olores hacia el techo.

- Se recomienda analizar las zonas públicas, en la que una o un grupo de personas accede, de las privadas, a la que sólo puede entrar la familia o una persona con aprobación. Los ambientes públicos son: porche, sala, comedor y cocina ; privados: dormitorios, baños e inodoros; los primeros pueden ser distribuidos en un sólo ambiente sin particiones elevadas, los segundos si deben ser cerrados, ya que necesitan mayor privacidad. Con el criterio anterior podemos distribuir el espacio interno de una mejor forma, dejando un 50% del espacio total para las actividades públicas y el 50% restante para las áreas privadas. Hay que utilizar vestíbulos para entrar a los espacios, pues es poco adecuado y confortable entrar directamente a un determinado ambiente, casi tropezándose con muebles y actividades de otras personas. (Véase gráfico 8)
- Hay que diseñar la vivienda tal como deseamos dejarla de forma definitiva; los cambios sobre la marcha de la construcción son muy costos, ya que hay que botar paredes y se desperdicia material, tiempo y mano de obra. Es conveniente planificar las etapas de construcción según los recursos y necesidades que se dispongan en cada momento; de esta forma, y con el diseño total de la vivienda, se puede construir poco a poco, dejando esperas y vanos para ventanas y puertas que dan a ampliaciones futuras. La pendiente del techo es fundamental cuando pensamos en ampliar, ya que si una vivienda posee el techo a dos aguas con la pendiente hacia el frente y atrás, y se va ampliar en el patio trasero, tendríamos que mover todo el techo para poder construir la segunda etapa; es mejor construir el techo con las pendientes hacia los laterales, pues de lo contrario la ampliación quedará muy baja y/o fuera de armonía con el resto de la vivienda. (Véase gráfico 9). Existe un caso en Estelí donde la familia construyó la primera etapa de su vivienda, con una sola pendiente para completar la otra con la segunda etapa, siendo un ejemplo muy bueno. (Véase foto 8)
- Como un mejoramiento para la evacuación de aguas residuales grises de la vivienda, que son las provenientes del lavado de ropa y platos de cocina, es recomendable cavar un hueco en la tierra lo más cerca posible a cocina y lavaderos, 1mt³ (1mt x 1mt x 1mt) rellenándolo con piedras bolones de mediano y pequeño tamaño, cubriéndolo con una pequeña capa de arena para ayudar a la filtración de las aguas y el retiro de la nata.; alrededor del hueco se colocan palos y/o piedras en los bordes para que formen un marco y evitar en lo posible la inundación por aguas pluviales. Sobre el mismo terreno, se crean "canales" desde el origen de las aguas hasta el hueco; es conveniente colocar un tubo desde el



NO ES
ADECUADO



ES MEJOR
ASÍ PARA AMPLIAR.

GRAFICO N° 8.

lavadero o lavatrastos hacia el piso, para evitar la erosión del piso por la fuerza del agua que provoca un charco, no permitiéndolo el paso del agua sobre el canal.

COMPARACIÓN ENTRE VISITAS: ESTELÍ Y SOMOTO

- Somoto presenta mejores soluciones constructivas, funcionales y de inversión del crédito; esto tiene origen en la idea más "rural", en que el espacio es coherente a sus necesidades y el espacio, mientras que en Estelí las soluciones son más "urbanas", retomando patrones que no encajan en la vivienda y áreas existentes.
- Los montos son similares en estas ciudades, con un promedio en C\$5,000 córdobas; el monto máximo se dio en Estelí a 3 personas, y en Somoto sólo a 1, percibiéndose ingresos un poco mayores en Estelí. Sin embargo se ha hecho más en Somoto: en Estelí se realizaron 2 viviendas nuevas (16%) con el monto máximo y albañiles pagados, mientras que en Somoto 3 viviendas nuevas (37%) con el monto promedio y 2 por autoconstrucción. Aquí influye: el tipo de mano de obra, la cercanía de bancos de materiales que bajan costos de transporte; en cuanto a la calidad del material, sobretodo de bloques y ladrillos estos son más artesanales y menos supervisados en Somoto que en Estelí, situación que debe ser revisada.
- En Estelí los casos por autoconstrucción es el 25% y mano de obra pagada 75% siendo esta mayoritaria. Somoto, presenta el 50% de autoconstrucción con el 50% de mano de obra pagada. Esto se ve reflejado en el tamaño y nivel de acabados de la obra construida.
- La supervisión es un poco más cercana e informal en Somoto, la que ha dado mejores resultados, ya que no se ve como una clara exigencia. Esto es posible debido al menor tamaño que Estelí, la población se conoce más y mejor, facilitando el acceso a la vivienda y la aplicación de sugerencias. Las distancias son más cortas, permitiendo visitas más frecuentes y mejor control. Estelí si presenta estos contratiempos, teniendo como estimado una visita semanal; mientras que en Somoto, las visitas no pudieron ser contabilizadas, siendo las respuestas siempre, todo el tiempo etc.

Cuadro Comparativo

Descripción	Esteli	Somoto
TIPO DE MANO DE OBRA		
Autoconstrucción pura	5%	25%
Ayudantía	20%	25%
Mano de Obra pagada	75%	50%
TIPO DE MEJORAMIENTO*		
Vivienda Nueva	16%	37%
Ampliación Dormitorios	33% (1 dormitorio)	25% (2 dormitorios)
Ampliación Baño, inodoro y lavadero	25%	13%
Ampliación Cocina	16%	13%
Reparaciones (techo, muros, paredes)	16%	25%
Acabados (piso, repello, enchapes)	8%	13%
TIPO DE MONTOS		
Montos máximos C\$9,700.00	25%	13%
Montos promedios C\$5,000.00	50%	75%
Montos mínimos	25% (C\$2,500)	12% (C\$3,500.00)
TIEMPO SEGÚN TIPO DE OBRA		
Vivienda Nueva	3 semanas	1 a 2 meses
Ampliaciones	2 semanas	
Reparaciones	3 semanas	1 mes
Acabados	2 semanas	2 semanas

* La suma de estos porcentajes no es de 100%, ya que en una misma vivienda se pueden dar dos o tres tipos de mejoramientos, pero se refleja la prioridad en la inversión.

ANNEX.3.

SUSTAINABILITY FORECASTS

REVOLVING FUNDS

TABLE OF ASSUMPTIONS AND CRITICAL VARIABLES

Assumptions and Variables	Action
I. COMMON ASSUMPTIONS There are no new disbursements for 1998 Financial conditions are maintained. Same level of financial investments	PRESENT SCENARIO (A) % Housing delinquency 15% and for Microenterprise 2% % yield Annual 10% of financial investments
KEY VARIABLES: B.1 BP's commissions B.2 Delinquency level B.3 Differentiated management of funds B.4 Volume B.5 Financial performance of transitory investments B.6 Management of Unrecoverable accounts	OPTIMISTIC SCENARIO: (C) % Delinquency rate of 7,5% for housing and 2% for Microenterprise % 15% yield over investments
	PESIMISTIC SCENARIO: (B) Delinquency of 30% in housing and 5% in Microenterprise 10% annual Yield on financial investments

OPTION A

FUNDS' DISTRIBUTION

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INFRASTRUCTURE	1,071,000	593,695	0							
MICROENTERPRISES	414,986	350,000	439,589							
HOUSING	547,767	540,000	313,923							
ADMINISTRATION	295,537	164,232	87,765							
TECHNICAL SUPPORT	195,035	230,000	232,000							

Income from Infra, Admin and Technical Support	1,561,572	987,927	319,765	0	0	0	0	0	0	0
% Investment Funds	10%	10%	10%							
Temporary Investment	156,157	98,793	31,977	0	0	0	0	0	0	0
Interests over temporary investm.	10%	10%	10%							
Result	15,616	9,879	3,198	0	0	0	0	0	0	0
Balance pending of investment	1,405,415	889,134	287,789	0	0	0	0	0	0	0

Microenterprise results	98,599	187,712	303,492	321,818	341,251	361,858	383,709	406,879	431,448	457,501
Sustainability Contribution	98,599	187,712	303,492	321,818	341,251	361,858	383,709	406,879	431,448	457,501

Housing Result	29,857	66,570	96,692	108,067	100,266	95,002	90,675	85,328	80,392	76,048
Sustainability Contribution	29,857	66,570	96,692	108,067	100,266	95,002	90,675	85,328	80,392	76,048

Total Income	634,644	658,393	723,146	429,885	441,517	456,859	474,384	492,207	511,840	533,549
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EXPENDITURES

Technical support fund	195,035	230,000	232,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
PRODEL's overhead exp.	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000
Bank commission	73,381	142,034	216,814	224,236	231,902	241,265	251,708	262,471	274,183	286,968
Total Expenditures	412,416	516,034	592,814	568,236	575,902	585,265	595,708	606,471	618,181	630,968
Income - Expenditures	222,227	142,359	130,332	(138,351)	(134,385)	(128,406)	(121,325)	(114,263)	(106,343)	(97,419)

OPTION A

MICROENTERPRISES - FUNDS' DISTRIBUTION

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INFRASTRUCTURE	1,070,813	593,695	0							
MICROENTERPRISES	414,987	350,000	439,589							
HOUSING	547,767	540,000	313,923							
ADMINISTRATION	295,537	164,232	87,765							
TECHNICAL SUPPORT	195,034	230,000	232,008							
AVERAGE CREDIT	\$350	350	350	350	350	350	350	350	350	350

Income	414,987	790,046	1,277,342	1,354,475	1,436,265	1,522,994	1,614,960	1,712,480	1,815,888	1,925,541
% Inv. - Funds	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Amount for investment	41,499	79,005	127,734	135,447	146,626	152,299	161,496	171,248	181,589	192,554
Interests over investm.	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Result	4,150	7,900	12,733	13,545	14,363	15,230	16,150	17,125	18,159	19,255
Available amount	373,488	711,041	1,149,608	1,219,027	1,292,638	1,370,695	1,453,464	1,541,232	1,634,300	1,732,987
Amount for allocations	366,018	696,821	1,126,616	1,194,647	1,266,786	1,343,281	1,424,395	1,510,407	1,601,614	1,698,327
Number of operations	1,067	2,032	3,285	3,483	3,693	3,915	4,153	4,404	4,669	4,951
Expected operations										

Delinquency index	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Delinquency in \$	7,470	14,221	22,992	24,381	25,853	27,414	29,069	30,825	32,686	34,660
Recuperation	492,997	938,560	1,517,459	1,609,091	1,706,256	1,809,289	1,918,543	2,034,395	2,157,242	2,287,507
Capital	358,541	682,585	1,103,600	1,170,241	1,240,906	1,315,839	1,395,296	1,479,551	1,588,894	1,663,632
Interests	134,456	255,975	413,859	438,850	465,350	493,450	523,247	554,844	588,348	623,875
% Sustainability contrib.	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Reinvestment	394,397	750,848	1,213,967	1,287,273	1,365,005	1,447,431	1,534,834	1,627,516	1,725,794	1,830,306
Sustainability	98,599	187,712	303,492	321,818	341,251	361,858	383,709	406,879	431,448	457,501

HOUSING IMPROVEMENT - FUNDS' DISTRIBUTION

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INFRASTRUCTURE	1,071,000	593,695	0							
MICROENTERPRISES	414,986	350,000	439,589							
HOUSING	547,767	540,000	313,923							
ADMINISTRATION	295,537	164,232	87,765							
TECHNICAL SUPPORT	195,035	230,000	232,000							
AVERAGE CREDIT	\$650	650	650	650	650	650	650	650	650	650

Income	547,767	719,681	659,366	459,297	506,866	504,277	4622,796	420,639	408,609	388,493
% Inv. - Funds	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Amount for investment	54,777	71,968	65,937	45,930	50,687	50,428	46,280	42,064	40,861	38,849
Interests over investm.	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Result	5,478	7,197	6,594	4,593	5,069	5,043	4,628	4,206	4,086	3,885
Available amount	492,990	647,713	593,430	413,367	456,180	453,849	416,516	378,575	367,748	349,644
Amount for allocations	419,042	550,556	504,415	351,362	387,753	385,772	354,039	321,789	312,586	297,197
Number of operations	645	847	776	541	597	593	545	495	481	457

Delinquency index	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
Delinquency in \$	73,949	97,157	89,014	62,005	68,427	68,077	62,477	56,786	55,162	52,447
Recuperation	149,284	332,848	483,458	564,410	548,787	5022,327	460,406	447,667	423,938	397,450
Capital	104,523	242,400	368,503	456,344	448,522	407,326	369,732	362,338	343,547	321,403
Interests	44,523	90,449	114,955	108,067	100,266	95,002	90,675	85,328	80,392	76,048
% Sustainability contrib.	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Reinvestment	119,427	266,278	386,766	456,344	448,522	407,326	369,732	362,338	343,547	321,403
Sustainability	29,857	66,570	96,692	108,067	100,266	95,002	90,675	85,328	80,392	76,048
	149284	332,848	483,458	564,410	548,787	502,327	460,406	447,667	423,938	397,450

OPTION C

ASSUMPTIONS UNDER THE BEST CONDITIONS - FUNDS' DISTRIBUTION

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INFRASTRUCTURE	1,071,000	593,695	0							
MICROENTERPRISES	414,986	350,000	439,589							
HOUSING	547,767	540,000	313,923							
ADMINISTRATION	295,537	164,232	87,765							
TECHNICAL SUPPORT	195,035	230,000	232,000							

Income from Infra, Admin and Technical Support	1,561,572	987,927	319,765	0	0	0	0	0	0	0
% Investment Funds	10%	10%	10%							
Temporary Investment	156,157	98,793	31,977	0	0	0	0	0	0	0
Interests over temporary investm.	15%	15%	15%							
Result	23,424	14,819	4,796	0	0	0	0	0	0	0
Balance pending of investment	1,405,415	889,134	287,789	0	0	0	0	0	0	0

Microenterprise results	98,599	187,712	303,492	321,818	341,251	361,858	383,709	406,879	431,448	457,501
Sustainability Contribution	98,599	187,712	303,492	321,818	341,251	361,858	383,709	406,879	431,448	457,501

Housing Result	32,491	138,205	304,956	324,895	346,771	368,771	392,883	418,572	445,940	475,098
Sustainability Contribution	32,491	138,205	304,956	324,895	346,771	368,771	392,883	418,572	445,940	475,098

Total Income	645,086	670,532	737,180	448,990	465,177	485,358	507,598	529,932	554,281	580,880
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EXPENDITURES

Technical support fund	195,035	230,000	232,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
PRODEL's overhead exp.	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000
Bank commission	74,992	146,090	223,182	232,528	242,332	253,980	266,694	279,681	293,745	30,998
Total Expenditures	414,027	520,090	599,132	576,528	586,332	597,980	610,694	623,681	637,745	652,998
Income - Expenditures	231,059	150,441	137,999	(127,538)	(121,155)	(112,623)	(103,096)	(93,749)	(83,464)	(72,117)

MICROENTERPRISES - FUNDS' DISTRIBUTION

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INFRASTRUCTURE	1,070,813	593,695	0							
MICROENTERPRISES	414,987	350,000	439,589							
HOUSING	547,767	540,000	313,923							
ADMINISTRATION	295,537	164,232	87,765							
TECHNICAL SUPPORT	195,034	230,000	232,008							
AVERAGE CREDIT	\$350	350	350	350	350	350	350	350	350	350

Income	414,987	792,121	1,283,503	1,367,425	1,456,834	1,552,090	1,653,573	1,761,693	1,876,881	1,999,602
% Inv. - Funds	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Amount for investment	41,499	79,212	128,350	136,743	145,683	155,209	165,357	176,169	187,688	199,960
Interests over investm.	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Result	6,225	11,882	19,253	20,511	21,853	23,281	24,804	26,425	28,153	29,994
Available amount	373,488	712,909	1,155,153	1,230,683	1,311,151	1,396,881	1,488,216	1,585,523	1,689,193	1,799,541
Amount for allocations	366,018	698,651	1,132,050	1,206,069	1,284,928	1,368,943	1,458,452	1,553,813	1,655,409	1,763,649
Number of operations	1,067	2,037	3,300	3,516	3,746	3,991	4,252	4,530	4,826	5,142
Expected operations										

Delinquency index	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Delinquency in \$	7,470	14,258	23,103	24,614	26,223	27,938	29,764	31,710	33,784	35,993
Recuperation	492,997	941,025	1,524,778	1,624,476	1,730,692	1,843,854	1,964,415	2,092,858	2,229,700	2,375,490
Capital	358,541	684,378	1,108,923	1,181,430	1,258,678	1,340,955	1,428,657	1,522,070	1,621,591	1,727,619
Interests	134,456	256,647	415,855	443,046	472,014	502,877	535,758	570,788	608,110	647,871
% Sustainability contrib.	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Reinvestment	394,397	775,820	1,219,822	1,299,581	1,384,554	1,475,083	1,571,532	1,674,287	1,783,760	1,900,392
Sustainability	98,599	188,205	304,956	324,895	346,138	368,771	392,883	418,572	445,940	475,098

HOUSING IMPROVEMENT - FUNDS' DISTRIBUTION

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INFRASTRUCTURE	1,071,000	593,695	0							
MICROENTERPRISES	414,986	350,000	439,589							
HOUSING	547,767	540,000	313,923							
ADMINISTRATION	295,537	164,232	87,765							
TECHNICAL SUPPORT	195,035	230,000	232,000							
AVERAGE CREDIT	\$650	650	650	650	650	650	650	650	650	650

Income	547,767	732,958	687,851	506,295	570,891	582,809	552,712	521,318	520,991	510,570
% Inv. - Funds	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Amount for investment	54,777	73,296	68,765	50,629	57,089	58,281	55,271	52,132	52,099	51,057
Interests over investm.	15%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Result	8,217	7,330	6,877	5,063	5,709	5,828	5,527	5,213	5,210	5,106
Available amount	492,990	659,662	618,886	455,665	513,802	524,528	497,441	469,186	468,892	459,513
Amount for allocations	456,016	610,187	572,470	421,490	475,266	485,188	460,133	433,997	433,725	425,049
Number of operations	702	933	881	648	731	746	708	668	667	654

Delinquency index	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Delinquency in \$	36,974	49,475	46,416	34,175	38,535	39,340	37,308	35,189	35,167	34,463
Recuperation	162,456	366,379	538,316	639,293	639,049	605,190	575,234	272,006	561,662	544,009
Capital	114,004	266,708	409,826	515,198	520,011	488,604	460,519	463,646	453,261	438,226
Interests	48,452	99,671	128,490	124,095	119,038	116,587	114,715	111,360	108,341	105,783
% Sustainability contrib.	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Reinvestment	129,965	293,103	430,650	515,198	520,011	488,604	460,519	463,646	453,261	438,226
Sustainability	32,491	73,276	107,663	124,005	119,038	116,587	114,715	111,360	108,341	105,783
	162,456	366,379	538,316	639,293	639,049	605,190	575,006	575,006	561,602	544,009

OPTION B

FUNDS' DISTRIBUTION

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INFRASTRUCTURE	1,071,000	593,695	0							
MICROENTERPRISES	414,986	350,000	439,589							
HOUSING	547,767	540,000	313,923							
ADMINISTRATION	295,537	164,232	87,765							
TECHNICAL SUPPORT	195,035	230,000	232,000							

Income from Infra, Admin and Technical Support	1,561,572	987,927	319,765	0	0	0	0	0	0	0
% Investment Funds	10%	10%	10%							
Temporary Investment	156,157	98,793	31,977	0	0	0	0	0	0	0
Interests over temporary investm.	10%	10%	10%							
Result	15,616	9,879	3,198	0	0	0	0	0	0	0
Balance pending of investment	1,405,415	889,134	287,789	0	0	0	0	0	0	0

Microenterprise results	95,581	179,185	286,039	294,990	304,221	313,740	323,558	333,683	344,124	354,392
Sustainability Contribution	95,581	179,185	286,039	294,990	304,221	313,740	323,558	333,683	344,124	354,392

Housing Result	24,538	53,876	76,379	80,002	68,894	60,540	53,977	47,425	41,573	36,627
Sustainability Contribution	24,538	53,876	76,379	80,002	68,894	60,540	53,977	47,425	41,573	36,627

Total Income										
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EXPENDITURES

Technical support fund	195,035	230,000	232,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
PRODEL's overhead exp.	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000	144,000
Bank commission	70,160	133,307	201,917	202,938	203,707	205,773	208,744	211,898	215,521	219,703
Total Expenditures	409,195	507,307	577,917	546,938	547,707	549,773	552,744	555,898	559,521	563,703
Income - Expenditures	217,162	129,865	107,464	(171,946)	(174,593)	(175,492)	(175,209)	(174,790)	(173,823)	(172,184)

MICROENTERPRISES - FUNDS' DISTRIBUTION

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INFRASTRUCTURE	1,070,813	593,695	0							
MICROENTERPRISES	414,987	350,000	439,589							
HOUSING	547,767	540,000	313,923							
ADMINISTRATION	295,537	164,232	87,765							
TECHNICAL SUPPORT	195,034	230,000	232,008							
AVERAGE CREDIT	\$350	350	350	350	350	350	350	350	350	350

Income	414,987	777,973	1,241,906	1,280,767	1,320,845	1,362,176	1,404,801	1,448,760	1,494,094	1,540,847
% Inv. - Funds	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Amount for investment	41,499	77,797	124,191	128,077	132,084	136,218	140,480	144,876	149,409	154,085
Interests over investm.	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Result	4,150	7,780	12,419	12,808	13,208	13,622	14,048	14,488	14,941	15,408
Available amount	373,488	700,175	1,117,715	1,152,690	1,188,760	1,225,959	1,264,321	1,303,884	1,344,685	1,386,762
Amount for allocations	354,814	665,167	1,061,829	1,095,056	1,129,322	1,164,661	1,201,105	1,238,690	1,277,450	1,317,424
Number of operations	1,067	2,001	3,193	3,293	3,396	3,503	3,612	3,725	3,842	3,962
Expected operations										

Delinquency index	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Delinquency in \$	18,674	35,009	65,386	57,835	589,438	61,298	63,216	65,194	67,234	69,338
Recuperation	477,905	895,925	1,430,197	1,474,950	1,521,104	1,568,702	1,617,790	1,668,413	1,720,621	1,774,462
Capital	343,449	643,862	1,027,819	1,059,982	1,093,150	1,127,357	1,162,634	1,199,015	1,236,534	1,275,228
Interests	134,456	252,063	402,377	414,969	427,954	441,345	455,156	469,398	484,087	499,234
% Sustainability contrib.	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Reinvestment	382,324	716,740	1,144,158	1,179,960	1,216,883	1,254,962	1,294,232	1,334,731	1,376,497	1,419,570
Sustainability	95,581	179,185	286,039	294,990	304,221	313,740	323,683	333,683	344,124	354,892

HOUSING IMPROVEMENT - FUNDS' DISTRIBUTION

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
INFRASTRUCTURE	1,071,000	593,695	0							
MICROENTERPRISES	414,986	350,000	439,589							
HOUSING	547,767	540,000	313,923							
ADMINISTRATION	295,537	164,232	87,765							
TECHNICAL SUPPORT	195,035	230,000	232,000							
AVERAGE CREDIT	\$650	650	650	650	650	650	650	650	650	650

Income	547,767	698,606	606,274	372,205	391,357	368,829	314,411	262,456	239,45456	213,002
% Inv. - Funds	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Amount for investment	54,777	6,986	6,063	3,722	3,914	3,688	3,144	2,625	2,395	2,130
Interests over investm.	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Result	5,478	6,986	6,063	3,722	3,914	3,688	3,144	2,625	2,395	2,130
Available amount	492,990	628,745	545,646	334,985	352,221	331,946	282,970	236,211	215,511	191,702
Amount for allocations	345,093	440,122	381,952	234,489	246,555	232,362	198,079	165,348	150,857	134,191
Number of operations	531	677	588	361	379	357	306	254	232	206

Delinquency index	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%
Delinquency in \$	147,897	188,624	163,694	100,495	105,666	99,584	84,891	70,863	64,653	57,510
Recuperation	122,939	269,360	381,894	430,416	394,673	334,380	281,848	258,011	228,235	198,746
Capital	86,273	196,304	291,792	350,414	325,780	273,840	227,871	210,586	186,662	162,119
Interests	36,666	73,076	90,102	80,002	68,894	60,540	53,977	47,425	41,573	36,527
% Sustainability contrib.	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Reinvestment	98,352	215,504	305,515	350,414	325,780	273,840	227,871	210,586	186,862	162,119
Sustainability	24,588	53,876	76,379	80,002	68,894	60,540	53,977	47,425	41,573	36,627
	122,939	269,380	381,894	430,416	394,673	334,380	281,848	258,011	228,235	198,746

APPENDICES

1. TERMS OF REFERENCE
2. MISSION PROGRAMME
3. BIBLIOGRAPHY

**Términos de Referencia para la
Evaluación del Programa de Desarrollo Local (PRODEL)
financiado por la Cooperación Sueca en Nicaragua**

I. ANTECEDENTES

1. El 3 de Junio de 1993, Suecia y Nicaragua firmaron un Convenio de Cooperación para la realización del PRODEL. El Programa surgió por dos razones: por un lado, el interés de ambos gobiernos en estructurar un programa capaz de mitigar los efectos negativos que las políticas de ajuste económico tienen sobre los sectores más vulnerables de la sociedad. Por el otro, la necesidad de desarrollar un programa participativo, descentralizado y financieramente viable que pudiera contribuir a consolidar el proceso de reconciliación, democratización y fortalecimiento de la sociedad civil en Nicaragua a nivel local.
2. PRODEL busca mejorar el entorno físico y el desarrollo social de familias de escasos recursos económicos, especialmente de mujeres jefes de hogar, que viven en barrios pobres ubicados en las cabeceras departamentales de Estelí, Somoto, Ocotal, León y Chinandega, por medio de la realización de proyectos de infraestructura y obras comunitarias, y el otorgamiento de créditos para el mejoramiento habitacional y para la microempresa. Busca además, fortalecer la capacidad de gestión de los gobiernos locales, intermediarios financieros no convencionales y organizaciones comunitarias para realizar este tipo de proyectos.
3. PRODEL tendrá una duración de tres años y medio y un valor aproximado de US\$ 7 millones de los cuales Suecia hará un aporte de US\$ 5.4 millones (SEK 43.5 millones aproximadamente) para su realización. Los otros US\$ 1.6 millones son contrapartidas locales. El organismo encargado de su implementación es el Instituto Nicaragüense de Fomento Municipal (INIFOM). Según las metas establecidas en el Documento de Proyecto, se espera que para 1996, se hayan beneficiado unas 2,000 familias en crédito de vivienda, 1,000 microempresarios, y unos 85 barrios con proyectos de infraestructura y obras comunitarias.

II. IMPORTANCIA Y JUSTIFICACION

- Desde que inició operaciones en marzo de 1994 hasta la fecha, PRODEL ha tenido un impacto social significativo en los cinco municipios donde opera y es reconocido a nivel nacional como un importante ejercicio dentro del proceso de descentralización que impulsa el Gobierno de Nicaragua. Los

métodos de trabajo y esquemas de coordinación utilizados en la ejecución de los componentes de créditos de vivienda y microempresas hacen prever que los fondos rotativos creados podrán ser financieramente sostenibles en el tiempo.

De acuerdo al Convenio de Cooperación firmado entre Suecia y Nicaragua, se deberá realizar una evaluación externa antes de finalizar el período de ejecución del Programa. Además de analizar los logros y limitaciones enfrentados durante el período de ejecución del PRODEL, la evaluación deberá presentar recomendaciones sobre las alternativas de continuidad o finalización de PRODEL, incluyendo la sostenibilidad de sus acciones y las posibilidades de una segunda cooperación de Suecia con Nicaragua.

II. OBJETIVOS Y CONTENIDO DE LA EVALUACION

En términos generales, la evaluación busca:

- a) analizar el grado de impacto y la eficiencia con la cual se han cumplido los objetivos y las metas generales y específicas del PRODEL;
- b) hacer recomendaciones sobre el futuro del Programa, incluyendo su sostenibilidad operativa, institucional y financiera.

Específicamente, el ejercicio pretende:

- 1 Examinar la capacidad de planificación y programación de PRODEL, incluyendo la consistencia y coherencia de su desarrollo con la problemática nacional en general y de los municipios y sectores sociales que se quería beneficiar en particular. Para ello, se tratará de determinar la compatibilidad del Programa en relación a:
 - a) las políticas nacionales de reconciliación, democratización, alivio a la pobreza, descentralización y desarrollo local;
 - b) la capacidad de mejorar las condiciones de habitabilidad y de generación de ingresos y empleo de sectores de menores recursos económicos de los barrios atendidos, especialmente de mujeres jefes de hogar;
 - c) la capacidad de adecuación a cambios del entorno durante el período de ejecución;
- 2 Verificar la eficiencia en el manejo de recursos y medios empleados y el grado de cumplimiento de las metas físico, sociales y financieras, especialmente relacionadas a:

- a) los tiempos y ejecución real de los componentes y presupuestos programados;
- b) la combinación y ejecución simultánea de los componentes (infraestructura, y créditos de vivienda y microempresas) del Programa;
- c) la calidad de los proyectos de infraestructura, obras comunitarias y mejoramiento de vivienda;

.3 Constatar el impacto que tuvo el Programa sobre:

- a) el mejoramiento de las condiciones de vida de las familias beneficiarias de los componentes;
- b) el grado de participación comunitaria en el diseño e implementación de los proyectos;
- b) el grado de desarrollo institucional de los gobiernos locales;

.4 Analizar el grado de sostenibilidad alcanzado por el Fondo Rotativo conformado con los créditos de microempresa y de mejoramiento de vivienda;

.5 Identificar elementos críticos que puedan contribuir a mejorar la capacidad de gestión de los diversos actores involucrados (INIFOM, Alcaldías, Banco de Crédito Popular y organizaciones comunitarias);

.6 Hacer recomendaciones sobre diversas alternativas de institucionalización, continuidad, replicabilidad, sostenibilidad o finalización del Programa, incluyendo:

- a) el tipo de factores externos (nacionales e internacionales) que deben tomarse en cuenta para una ejecución eficiente y eficaz del programa, sobre todo, en lo referido a la problemática de asentamientos humanos (infraestructura y vivienda) y microempresas;
- b) la forma de incrementar el impacto social atendiendo a los grupos más pobres y poder mantener un Programa financieramente sostenible y eficiente (limitación del PRODEL a los componentes y lugares seleccionados o expansión a otros barrios, municipios y regiones u otros componentes);
- c) los mecanismos gerenciales y administrativos que deben considerarse para mejorar la eficiencia en el desarrollo de PRODEL, incluyendo su institucionalización;

- d) las formas administrativas, jurídicas, institucionales y financieras que deben estructurarse y/o consolidarse para la continuidad y sostenibilidad de los fondos revolventes;
- e) los lineamientos básicos que podría tener una segunda cooperación de Suecia con PRODEL;
- f) el tipo de asistencia técnica externa que requiere este proceso.

2.7 Estas recomendaciones deberán estar definidas en términos de:

- a) la agencia donante (ASDI);
- b) el Gobierno de Nicaragua;
- c) la entidad administradora (INIFOM) y la Unidad Ejecutora de PRODEL;
- d) el Consejo Consultivo del PRODEL;
- e) las entidades ejecutoras: (Alcaldías de los cinco municipios, el Banco de Crédito Popular);
- f) los (las) pobladores (as) (familias, grupos organizados y dirigentes comunales de los barrios seleccionados y futuros barrios y/o municipios a ser atendidos).
- g) otras entidades que colaboran con el PRODEL (INATEC y ONGs).

IV. PROCESO PARA IMPLEMENTAR LA EVALUACION

1. El proceso que seguirá la evaluación es el siguiente:

- a) ASDI e INIFOM discutirán los Términos de Referencia de la evaluación. ASDI identificará e informará a INIFOM los nombres de los (las) Consultores (as) que participen como evaluadores (as) externos (as);
- b) Una vez acordados, los Términos de Referencia serán enviados a los evaluadores para sus conocimientos y comentarios;
- c) INIFOM elaborará un documento base que servirá como fuente de información y análisis para que los evaluadores desarrollen su trabajo. El documento base dará respuesta a los temas e interrogantes expuestas en los objetivos y temas de análisis descritos en los presentes Términos de Referencia.

- d) INIFOM realizará un taller de planificación estratégica del PRODEL con la mayoría de actores que ha estado involucrado en su ejecución, incluyendo entre otros, a los miembros del Consejo Consultivo, el Equipo Técnico de PRODEL y representantes de ASDI. Los resultados del taller servirán como insumo para el documento base que se enviará anticipadamente a los evaluadores;
- e) Los integrantes de la Misión enviarán a INIFOM una lista con peticiones concretas sobre otro tipo de información requerida y un índice tentativo del documento que deberá ser presentado al finalizar la evaluación. Esto se hará teniendo en cuenta los Términos de Referencia, el documento base y las conversaciones que los consultores tengan entre ellos previa su llegada al país;
- f) La Misión de evaluación visitará Nicaragua durante tres semanas: dos semanas se utilizarán para visitas de campo, entrevistas y redacción de primeras impresiones sobre los resultados de la evaluación;
- g) en la tercera semana presentarán un borrador de documento a ASDI y a INIFOM y someterán a discusión las conclusiones y recomendaciones preliminares del trabajo;
- h) Tres semanas después de obtener las observaciones de ASDI e INIFOM, los evaluadores deberán entregar el documento final de la evaluación. En dicho documento también deberán explicitar los puntos de verificación necesarios para comprobar el avance de la implementación de las recomendaciones de la evaluación;
- i) ASDI e INIFOM establecerán un plan de acción para darle seguimiento las recomendaciones de ~~la~~ evaluación acordadas entre las partes;

PERFIL DE LOS EVALUADORES Y COMPOSICION DE LA MISION

Se requiere un equipo de dos evaluadores (as) con conocimiento y especialidad en las siguientes áreas:

- a) financiamiento de programas de créditos de vivienda y microempresas y administración de fondos revolventes;
- b) descentralización, gobiernos locales y participación comunitaria;
- c) planificación física de proyectos medio ambientales y de infraestructura a nivel local;

Un representante de ASDI Estocolmo participará como observador durante la visita de la Misión de Evaluación.

I. DOCUMENTO BASE

El Documento Base deberá poseer información sobre las entidades administradoras y ejecutoras de PRODEL, los antecedentes del Programa, objetivos del mismo y resultados que se obtuvieron durante el periodo que cubre la evaluación. Se deberán agregar datos sobre las perspectivas y las metas del trabajo de PRODEL a futuro. El documento deberá de dar respuesta a cada uno de los temas que se describen en los presentes términos de referencia. Además deberá contener los resultados del taller de planificación estratégica.

II. CRONOGRAMA

En la continuación se presenta un cronograma con las actividades que se deberán realizar previas, durante y posterior a la evaluación:

ACTIVIDAD	FECHA	RESPONSABLES
Propuesta Términos de Referencia	JUNIO 95	ASDI
Envío de T de R a INIFOM	JUNIO 95	ASDI
Comentarios a Términos de Referencia	JULIO 95	INIFOM
Elaboración Términos de Referencia	AGOST 95	ASDI
Identificación de Consultores	DICIE 95	ASDI
Informar a INIFOM sobre Consultores	ENERO 96	ASDI
Taller planificación estratégica	ENERO 96	INIFOM
Revisión Revisión Anual ASDI	ENERO 96	ASDI
Probación Plan Operativo 96	FEBRO 96	INIFOM-ASDI
Contratación de consultores	FEBRO 96	ASDI
Redacción Documento Base	ABRIL 96	INIFOM
Revisión de Evaluación	MAYO 96	ASDI-INIFOM
Primer Documento	MAYO 96	CONSULTORES
Observaciones	JUNIO 96	INIFOM-ASDI
Documento final	JULIO 96	CONSULTORES

Programa de Trabajo

Lunes 13 de mayo

- 08.30 Reunión con Anders Hagwall y Nils Ostrom, Embajada de Suecia.
- 10.30 Reunión con Santiago Rivas, Presidente del INIFOM, y Ana Soledad Roman, Directora Ejecutiva
- 11.30 Reunión con el Equipo de Coordinación Nacional de PRODEL (Denis Medina, Carolina Padilla y Ruth Sovalbarro).
- 14.00 Entrevista con Fernando Soto, Asesor Del PNUD-PAMIC
- 15.00 Continuación con el equipo PRODEL

Martes 14 de Mayo

- 10.00 Reunión con José Navarro, Director Ejecutivo del Banco Popular y Feliz Ruiz, Gerente del Programa PRODEL
- 14.30 Reunión con Narciso Salas, Auditor Externo de PRODEL
- 16.00 Continuación con los Coordinadores de Componente, Carolina Padilla (crédito) y Ruth Sovalbarro)

Miércoles 15 de May Visita a Estelí

- 09.00 Entrevista con Alcaldesa, Lic. Vilma Arvizu
- 10.00 Reunión con el UTE, Estelí
- 11.00 Reunión con un grupo de mircoempresarios de microempresas nuevas y establecidos
- 12.00 Entrevista con Yanilda Ruiz, Gerente, Banco Popular
- 14.00 Reunión con representantes de las comisiones comunitarias
- 15.00 Visitas a las comunidades

Jueves 16 de mayo Visita a Ocotal

- 09.00 Entrevista con el Alcalde, Arnolfo Aguilera y Marlon Olivas
- 11.30 Entrevista con personal del Sucursal de Banco Popular
- 14.00 Vistas a las comunidades
- 16.00 Reunión con nuevas microempresarias
- 17.00 Reunión con dos comisiones comunitarias

Viernes 17 de mayo Visita a Somoto

- 08.30 Entrevista con el Alcalde, Dr. Rodolfo Alfaro

- 10.30 Reunión con el Sucursal del Banco Popular
- 11.30 Reunión con representantes de las Comisiones Comunitarias: Visita a la Comunidad
- 16.00 Reunión con las microempresarias
- 18.00 Regreso a Estelí
- 19.00 Reunión con Verónica Mora, Arquitecto sub-contratado

Sábado 18 mayo Trabajo de Campo, Estelí

- 08.00 Visitas a microempresarios (Irene Vance, Jorge Vargas)
- 08.00 Inspección del mejoramiento de vivienda y obras comunales (Verónica Mora)
- 14.00 Reunión de Trabajo con el Coordinador Nacional, PRODEL

Domingo 19 de mayo Estelí

- 8.00 Inspección de las obras en Somoto, (Verónica Mora)
- 9.00 Entrevista con ex-alcalde, Dr Ulises González
- 10.00 Trabajo de equipo
- 15.00 Salida a León

Lunes 20 de mayo Visita a Chinandega

- 08.30 Entrevista con el Alcalde, Juan Mungía
- 09.30 Entrevista con personal de la UTE (Irene Vance)
Entrevista con el Banco Popular (Jorge Vargas)
- 11.00 Visitas a las comunidades
- 15.00 Continuación con la UTE (Irene Vance)
Reunión con las Comisiones Comunitarias (Jorge Vargas)
- 18.00 Salida a León

Martes 21 de Mayo Visita a León

- 9.00 Entrevista con la Alcaldesa, María Elena Rojas Berrios
- 9.30 Reunión con el Banco Popular (Jorge Vargas)
Entrevista con el personal de la UTE (Irene Vance)
- 10.30 Visita a los proyectos de infraestructura
- 11.00 Entrevista con la una Comisión Comunitaria (Jorge Vargas)
Entrevista con El Coordinador Local (Irene Vance)
- 14.00 Visitas a los proyectos de vivienda
- 16.00 Reunión con microempresarios
- 17.30 Retorno a Managua

Miércoles de 22 mayo

- 09.00 Entrevista con Armando García, Presidente de ACODEP
- 10.30 Entrevista con el Ing. Agustín Jarquín Anaya, Contralor de la República
- 14.30 Entrevista con Director Ejecutivo, FAMA (Jorge Vargas)
Entrevista con Ruth Sovalbarro, UEP (Irene Vance)
- 15.30 Entrevista con Julia M. Trujillo, Programa de la Mujer, INATEC

Jueves 23 de mayo

- 08.30 Entrevista con María Rosa Renzi, Directora Ejecutiva FIDEG
- 11.00 Redacción del Informe

Viernes 24 de mayo

- 8.00 Reunión con el equipo PRODEL, discusión de los hallazgos
- 10.00 Reunión con Eiver Halfkjaer, Embajadora de Suecia, en Nicaragua
- 11.00 Redacción del Informe

Sábado 25 - Domingo 26 Redacción del Informe

- 18.00 Reunión con Carolina Padilla, (Jorge Vargas)

Lunes 27 de mayo

- 08.30 Presentación de las conclusiones preliminares, Embajada de Suecia (Anders Hagwall y Nils Ostrom)
- 10.30 Presentación de las conclusiones preliminares, Equipo PRODEL
- 11.30 Presentación de las conclusiones preliminares, Directora Ejecutiva INIFOM
- 13.30 Entrevista con el Sr. Hernan Estrada (abogado)

Martes 28 - Jueves 30 Redacción del Informe

Viernes 31 de mayo

- 09.00 Presentación del primer borrador del Informe, ASDI -PRODEL
- 10.00 Presentación del primer borrador del Informe al Dr. Santiago Rivas, Presidente de INIFOM y Ana Soledad Roman, Directora Ejecutiva
- 11.00 Presentación del primer borrador del Informe, Consejo Consultivo de PRODEL
- 14.00 Reunión conjunta con representantes del BID, Unión Europea, Danida, FISE, MAS, PROSILIAS, Consultor Externo de INIFOM, Programa Las Segovias, y ASDI-PRODEL

Sábado 1 de Junio

- Redacción del Informe
- Partida de Nicaragua

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