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PERU
SHELTER SECTOR UPDATE

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GLOSSARY OF ACRONYMS

BANVIP	Banco de la Vivienda del Perú (Peruvian Housing Bank)
BCH	Banco Central Hipotecario (Central Mortgage Bank)
BCR	Banco Central de Reserva (Central Bank)
BANMAT	Banco de Materiales (Materials Bank)
CAPECO	Cámara Peruana de la Construccion (Peruvian Chamber of Construction)
ENACE	Empresa Nacional de Edificaciones (National Building Company)
FONAVI	Fondo Nacional para la Vivienda (National Housing Fund)
ILD	Instituto de Libertad y Democracia (Institute for Liberty & Democracy)
ININVI	Instituto Nacional de Investigación y Normalización de la Vivienda (National Institute for Housing Research and Standards)
INP	Instituto Nacional de Planificación (National Planning Institute)
MEF	Ministerio de Economía y Finanzas (Ministry of Economy and Finance)
MHC	Ministerio de Vivienda y Construcción (Ministry of Housing & Construction)
PRATVIR	Proyecto para el Acondicionamiento Territorial y Vivienda Rural (Project for Rehabilitating Farmlands and for Rural Housing)
SEDAPAL	Servicio de Agua Potable y Alcantarillado de Lima (Lima Water Supply and Sewerage Service)
SENAPA	Servicio Nacional de Agua Potable y Alcantarillado (National Water Supply and Sewerage Service)
SEDA	Servicio de Agua (SENAPA Affiliates)

Currency and Exchange Rate

The Inti is the national unit of currency in Peru. Created in 1985, the Inti is equivalent to 1,000 Soles, the Sol having been the previous unit of currency.

The rate of exchange between the US Dollar and the Inti is not fixed. There are also a number of exchange rates depending on the end use of the dollar. For purposes of this report, a composite exchange rate is used, as follows:

1985	-	US$1.00 = I/.12.7
1986	-	US$1.00 = I/.14.5
1987 (est.)	-	US$1.00 = I/.18.0

SHELTER SECTOR UPDATE

INTRODUCTION

The primary purpose of this report is to update the Shelter Sector Assessment (SSA) prepared for USAID by PADCO in 1985. In addition, the team preparing the report was asked to investigate the prospects for a new housing guaranty (HG) program to continue the successful USAID housing program in Peru, which has made a significant and positive impact on the shelter sector.

This report is divided into two sections. Section I, the Shelter Sector Update, incorporates changes in the sector since mid 1985, and discusses the policies and programs of the new GOP Administration, which took power at that time. Therefore, this section should be read in conjunction with the 1985 Shelter Sector Assessment in order to gain a full understanding of the sector. Section II suggests a shelter policy agenda for USAID to discuss with the GOP, and is based on shared interests by both governments in improving the sector.

This report was prepared principally in Peru over a three week period in April and May 1987, by Daniel S. Coleman of Deloitte Haskins + Sells and David J. Gross of Abt Associates, Inc. They wish to express their deep appreciation to Kraig Baier and Rodolfo Salinas of USAID/Peru for their guidance and assistance in preparing this document. And finally, they would like to thank the Honorable Luis Bedoya Velez, Minister of Housing and Construction, and other housing officials with whom they met during this assignment, for their help and their insights into the housing situation in Peru.

I. Shelter Sector Update

A. Introduction

The present Peruvian government administration has instituted a number of policy changes and developed new programs which have benefitted the shelter sector. The basic tenet that motivates this administration, and thereby acts upon the shelter sector, is to spread about social and economic benefits so that as many people as possible receive at least some of the benefits. This translates into shelter policies that effectively promote programs and projects whereby many more low income Peruvian families are able to improve their shelter condition. This government believes that many improvements by a small amount is better than large improvements by a very few people.

The Shelter Sector Assessment prepared in 1985 stated categorically that problems in the sector had continued to worsen and that none of the policy issues that AID had focused on earlier in the decade had been addressed adequately. Accordingly, the SSA recommended a broad and detailed policy agenda for the GOP to address in order to improve shelter conditions. Interestingly enough, the new administration has addressed many of the policy issues in that proposed agenda although it has held power for less than 2 years. It is clear that the GOP has made considerable progress in implementing those policies and the forecast is that this favorable trend will continue. This is based not only on the team's understanding of both implicit and explicit policy statements, but also on an analysis of the actual implementation of those policies.

To what extent has the GOP addressed specific policy issues raised in the 1985 SSA. The first of four broad policy issues in the 1985 SSA agenda stipulated that public sector shelter programs should be limited to and focused on low income solutions. Current GOP policy explicitly states that public funds will be directed almost entirely to assist those families, and today, even ENACE undertakes construction of low income shelter solutions only. The GOP shelter objectives for the period 1986 - 1990 makes this point clear by stating that the public sector will develop about 520,000 shelter units of which 510,000 will be serviced lots and core units.

The second issue focused on facilitating private sector efforts in shelter delivery, stressing both the need to assist the Mutual Saving and Loan Associations (Mutuals) to survive, and to speed up land tenure efforts in new communities. Not only have the Mutuals survived -not without problems- but they have strongly reentered the long-term housing mortgage market, thanks to GOP assistance. And while the government continues to wrestle with the land tenure issue, it has, in fact, begun to make some progress.

A third broad issue related to the efficiency of the several financial intermediaries in the shelter sector. The major issue here was the need to devise a maintenance of value system to limit the deleterious effects of inflation on financial institutions. To date, efforts to counter this problem have been limited, although the government recognizes the danger of decapitalization. The second general problem under this policy issue covered the need to improve the operating efficiency of a number of institutions, and while some improvements have been made, deficiencies remain.

Finally, the SSA recommended the establishment of an on-going public-private shelter policy and formulation capability. This has occured only on a ad-hoc basis, but there are some indications that policy coordination is greater; to wit, the positive response of all major housing agencies to increase their participation and investment in low income shelter, and the general consensus that the GOP should emphasize assistance to poor families almost exclusively.

1. New Policy Directions

The Ministry of Housing and Construction (MHC), as well as many of the other shelter agencies, have published policy statements, which, so far, have been supported by actual deeds, even though many of these policies are relatively new. While these policies tend frequently to be quite broad and general, the important principles can be enunciated as follows:

- Housing and infrastructure have been integrated into a single shelter sector, directed by the MHC;

- The informal sector is recognized as a viable and valuable contributor to resolving the shelter problem, particularly with respect to the capacity of families to build their own housing;

- The role of the government is to support the people's efforts principally through the provision of services that the informal sector cannot provide easily or efficiently, i.e., the supply of water and sewage services, electricity, etc.; and in improving access to housing finance.

- In the area of housing, the public sector is limiting its role to the provision of serviced sites and core units, leaving to the private sector the production of other standard solutions;

- Accordingly, the Mutual Savings and Loan System is being strengthened and reintegrated into its former position as the major private sector supplier of housing finance;

- To cope with the ever present need for more assistance to the sector, additional sources of funding are being secured, including direct budgetary support and external funds;

- Efforts to expand the shelter sector's benefits ouside Lima's confines include more assistance to rural areas nationwide and the Trapecio Andino area in particular.

A number of old policies have been continued, although in some cases they have been modified somewhat. The most important are summarized below:

- As mentioned, ENACE continues to function as a state construction corporation, although it only promotes low income solutions with its FONAVI allocation;

- With the inflow of new funds from the BCR and the increase in FONAVI's contribution base, investment in shelter has increased, and so too, has the number of solutions.

- The interest rate subsidy remains the backbone of Peru's shelter programs. Interest rates for all financial institutions remain controlled at rates less than that of inflation, which means that those institutions are for the most part being decapitalized in one degree or another.

2. General Problem Areas

Even with progress being made in the sectors policy and production areas, certain problems persist, such as:

- Producing sufficient levels of affordable solutions is still an elusive goal;

- Generating sufficient capital over the long term to meet shelter needs will be difficult given Peru's economic condition and prospects;

- Planning and coordinating the various agencies in the sector needs to be improved in order to ensure the most efficient and effective use of scarce capital resources;

- Analyzing the benefits of the subsidy policy more thoroughly is sorely needed to maximize its impact on the sector. Apparently, more efforts should be made to ensure that the subsidy level is appropriate, that families who have the greatest need for subsidy assistance are being reached, that the current rates are set to ensure the greatest benefits, and that perhaps other subsidy permutations might be more effective;

- In the infrastructure area, systems to maximize recovery of capital and expenses to ensure continued growth must be developed;

- Decapitalization of the mutuals must be reduced in order to permit the principal private sector financial intermediary to serve effectively its clientele;

- In many institutions, sufficient and adequately trained staff are needed, while at other institutions, overstaffing is the problem. Training and rationalization of staff requirements can help to improve this situation; and

- Construction materials, their appropriate application, quality and scarcity at times hampers shelter production.

B. Summary of Peru's Current Economic Situation[1/]

1. Background

Since 1985, the Peruvian government has instituted policies which have contributed to a dramatic turnabout in the country's economic situation. The rate of inflation was reduced to 63 percent per year by the end of 1986, after having reached annual rates as high as 190 percent in 1985. Real GDP rose from 1.4 percent in 1985 to 8.9 percent in 1986, while per capita GDP grew by 6.2 percent after having fallen in the previous year. The unemployment rate fell from 11.8 to 8.2 percent, real incomes rose, and there was a significant redistribution of income to the agricultural sector and the low income urban sector as a result of changes in minimum wage laws. Production gains were made in almost every sector of the economy, led by a 24.3 percent increase in the construction sector, and a 23 percent increase in the manufacturing sector. The only weak performers in 1986 were the agricultural and mineral sectors, with annual growth rates of 4.0 and -3.9 percent, respectively.[2/]

From the standpoint of housing policy, it is particularly interesting to note the changes which took place in the construction industry between 1985 and 1986. For example, the 24.3 percent growth rate was preceded by a -11.1 percent rate in 1985. The turnaround is mainly attributable to three things: higher real incomes for households, lower financing costs, and the promotion of loans for low-cost housing construction.

There is, however, much evidence which suggests that the level of high economic performance has not continued into 1987, and that some of Peru's previous economic problems will return. Inflation in the first third of 1987 has been running at annual rates of near 100 percent, and is on the rise (April's inflation rate alone was estimated at 6.5 percent)[3/]. While GDP is still expected to grow by 5 percent in 1987, current production levels are at or near those in the last quarter of 1986, when most of that year's economic growth occured. Part of the growth in 1986 was financed by a severe trade inbalance. Foreign reserves fell by a third, and the sectors contributing to economic growth were heavily reliant on imported goods. This, in combination with decreased export prices, led to a dramatic reversal in Peru's trade balance, which, in 1986, went from a 350 million dollar surplus to a 100 million dollar deficit[4/]. The fiscal deficit rose to 5.7 percent of GDP, and much of the fiscal expansion in the last quarter of 1986 was attributable to increases in the money supply by the Central Bank.

1/Much of the information for this analysis comes from an internal AID memo, "Peru: Economic Situation in 1986 and Preliminary Look at 1987", written by mission economist Luis Arreaga, and from discussions with Dr. Arreaga.

2/Source: National Statistics Institute (INE).

3/INE estimates, as quoted by El Comercio, May 1, 1987.

4/Exports fell from 750 million to 600 million dollars between 1985 and 1986, while imports rose from 400 million dollars to 700 million. Source: Informe Estadîstico, INE, 1986.

The skepticism which exists about the country's future economic performance is in part due to the unconventional economic policy taken by the current administration. The basis of this policy is to take dramatic measures to break the economic stagflation in the economy. These measures include instituting a series of price controls, moderating the effect of the exchange rate or the consumer price index, and stimulating aggregate demand by increasing real incomes (mostly through increases in the minimum wage). This policy has been successful in promoting underutilized productive capacity.

A problem with this policy is that it was, in part, financed by a decrease in holdings of foreign reserves (see Table 1 below). The theoretical basis for this policy was that, in the short run, this loss would be at least partially financed by reductions in Peru's international debt repayments, and that the long run economic growth it promoted would end up increasing the country's ability to attract reserves. Unfortunately, the economic growth occurred mostly in domestically oriented production, which is heavily reliant on imported resources, therefore increasing the demand for imports. At the same time, falling mineral prices, reductions in non-traditional exports (which fell due to the domestic demand for those goods), and rigid exchange rate policies all reduced the level of foreign exchange earnings. Most importantly, the economic growth did not serve as an impetus to export oriented industries which can bring in large amounts of foreign exchange.

TABLE 1

FOREIGN RESERVE HOLDINGS 1985 - 1986
(millions of dollars)

	March	June	Sept.	Dec.
1985	977	973	1,043	1,421
1986	1,486	1,238	1,238	952

Source: INE

In addition, domestic policies to promote investment were not as successful as had been hoped. While the GOP was largely successful in "dedollarizing" the economy, efforts to attract more intis into the banking system by increasing the interest rates which could be paid on deposits were not fully effective. To some degree, this can be explained by the fact that the maximum interest rate (about 48%) was still far below the rate of inflation. This inability to mobilize financial resources severly limited the ability of the economy to promote domestic investment.

2. Prognosis for the Future

It is generally felt that the GOP was successful in its efforts at reducing inflationary expectations and utilizing the productive capacity. However, many economists feel that the types of solutions that were applied should be seen as temporary solutions. The government cannot continue to deplete its foreign exchange, nor to use the banking system to finance public

expenditures. Producers are clamoring for the lifting of price controls, and workers are beginning to seek wage increases. The current economic problem seems to be how to promote new investment, rather than one of using idle capacity.

The GOP has not yet developed policies to deal with this problem. Rather, the policies which are being followed appear to be more of stopgap measures. Import controls have been implemented in an effort to reduce the outflow of foreign reserves. The government is trying to maintain a low level of public and private sector wage increases. Price controls are being maintained. But exchange rate policies which discriminate against the export sector have not been lifted, and controls on prices are not allowing the market to efficiently allocate resources. The effect of not treating the problem of investment and growth is currently being seen in the rise in inflation rates and unchanged levels of domestic production from fourth quarter 1986. Many predict that more changes will have to be made if Peru is able to sustain the gains made in 1986.

C. Shelter Finance and Institutions

For the most part, the flow of funds to the shelter sector has increased and the capacity of financial and implementing agencies to use those funds efficiently and effectively has improved. New lines of credit have been opened, principally from the Banco Central de Reserva (BCR), which more than compensates for the decreased level of funds from FONAVI, due to the impact of inflation on contributions. Moreover, the shelter institutions are redirecting their efforts to provide more solutions for lower income families by reducing standards and emphasizing infrastructure solutions over shelter solutions. In 1986, it was calculated that 195,000 Peruvian families received shelter or infrastructure assistance under government programs, which works out to approximately 5 percent of the total population. Considering that the population is growing at 2.6 percent annually, it is clear that the GOP is making a dent in the shelter problem.

The following table gives the breakdown of shelter solutions by category in 1986.

TABLE 2
Shelter Solutions - 1986

	Type of Loan	No. of Families Assisted
1.	Water + Sewerage and Electricity services	133,827
2.	Home Improvement or Reconstruction	13,348
3.	Standard and Core units, also Rural Housing (ENACE + PRATVIR)	19,917
4.	Home improvement loans through the Mutual S&L's	13,627
5.	Construction Materials Loans	7,948
6.	BANVIP loans with FONAVI + BCR credits	6,306
		194,973

1. New Resources and Programs

Several new sources of shelter finance have been identified and tapped since mid 1985. The most significant new source derives from the Central Bank (BCR), which was authorized to open a line of credit to BANVIP to be used to finance housing projects developed principally by the private sector. Institutions such as the Mutuals, the Banco Central Hipotecario, and Housing Cooperatives can make use of this line of credit, with the Mutuals being foremost. The BCR's interest rate is 10 percent, with terms up to ten years, for the construction of housing units between $30m^2$ and $90m^2$, meaning that families in the lower middle to middle income brackets benefit the most. In 1986, BCR allocated I/.350 million ($24.1 million) for this program, while for 1987 I/.1,300 million ($90 million) has been requested, although not yet approved.

This program has been enthusiastically received by the private sector. The Mutuals or other financial institutions must mix their own "market rate" funds, now at a 48 percent interest rate, with BCR funds to reach a composite loan rate of between 22 and 34 percent, depending on the size of the unit. There are five categories of loans, with the less expensive $30m^2$ unit solutions having the lowest interest rate. This below market rate makes the program highly marketable to the public, given that present real inflation rates are in the 70 to 100 percent range. The interest rate mix has thereby permitted the Mutuals to increase the volume of its long-term mortgage lending. The program has also permitted private sector builders to continue building at acceptable levels of activity, particularly given that ENACE is phasing out this type of construction.

The second new program, using existing, but reallocated FONAVI funds, is the so-called BANVIP-FONAVI program, which is quite similar to the BANVIP-BCR program, except that this program attempts to reach even lower income families than those served by BCR. The maximum unit size under this program is $45m^2$. There are 3 separate lines of credit as follows:

a) Loans for non-conventional units,
b) Loans for conventional basic cores, and
c) Loans to lot owners to build or improve low income housing.

The interest rate for this first type of credit is 15 percent, while it is 22 percent for the other two.

FONAVI makes funds available to the Mutuals and other institutions at 3 percent for 10 years. Those institutions, in turn mix their own "market rate" funds with this low-cost source to achieve a lower composite interest rate. The attractive feature of both the BANVIP-BCR and -FONAVI programs is that Mutuals are reentering the housing market, thus adding financial resources to the sector.

While not a new source of financing, recent adjustments in the formula for contributions to FONAVI has resulted in a major increase in the flow of funds. Effective in 1986, the new formula increased contributions in that year to I/.1,009 million ($89.6 million) compared to I/.308 million in 1985, which was an increase far in excess of what would have been the increase when adjusted for inflation.

The Banco de Materiales, BANMAT, has been able to convince a number of Departmental Development Corporations to channel some of their financial resources dedicated for shelter purposes through BANMAT, which in turn, makes those funds available for materials loans in the Departments supplying the funds. While still a minor source, the successful use of these funds will encourage a wider and broader application of loan funds.

BANMAT also plans to initiate a pilot materials savings program this year, which, if successful, could generate large amounts of new funds for materials loans.

2. Sectorial Coordination

The SSA published in 1985, emphasized the myriad of coordination problems facing the shelter at that time. In general, a lack of coordination as defined in the SSA, remains an overall problem. However, specific coordination problems mentioned in the SSA, such as separation of programming and finance or the breakdown of national planning generally exist in all governments, particularly in democratic states, so it is not really unusual for this to occur in Peru. Be that as it may, overall coordination appears to be somewhat improved under the current administration. Part of this improvement is due, no doubt, to a greater political consensus within the various government agencies of the sector's goals and objectives. Secondly, the role of the Ministry of Housing and Construction has been focused more on its policy and planning responsibilities, and less on its program and project implementation capabilities. This, combined with the fact that MHC and related agencies have been able to successfully translate the administration's overall objectives into greater shelter benefits for low income families, has enhanced the image and reputation of the Ministry, and thereby improved its ability to guide and direct the sector.

The SSA recommended that one way to rectify the coordination problem would be to establish a high-level Housing Policy Group to formulate policy for the shelter sector. To date this group has not been established nor apparently are there plans to do so. Nevertheless a coordination committee was set up by the current Ministry of Housing and Construction to advise the Minister in housing policy and programs. It met a few times. However, problems essentially associated with assemblying the group surfaced, and at the present, the committee is moribund. As an alternative, a private sector group, Habitat Peru Siglo XXI, has attempted to fill part of the gap in policy planning and coordination. USAID has been very supportive of this group's activities, and recently financed a seminar entitled "The Private Sector and Production of Low Income Shelter", which brought together a large number of high level public and private sector representatives to discuss policy issues. Seminars of this nature have helped to continue the dialogue on sector problems and conditions, and generally have led to better sectorial understanding, and it is believed, better coordination.

Nevertheless, a National Housing Policy, per se, still does not exist, although a reading of various government legislation, decrees, and statements indicates that a policy is in effect, and in fact, does constitute a national policy. Putting this "implicit" policy into a formal planning framework, which would be updated regularly, would be of great assistance in the design and implementation of shelter programs.

3. Institutions

The only new institution in the housing sector is not technically an institution, but rather a specific program within the Ministry of Housing and Construction. The PRATVIR program, which can be translated roughly as the Project for Rehabilitating Farmlands and Rural Housing, is administered directly by the Ministry and is designed to improve the living conditions and the earning capacity of rural families.

The four institutions identified in the SSA as long-term players in the housing sector continue functioning as designated, however their roles and scope of operation have all changed in one way or another, as will be discussed in subsequent chapters. In addition, ENACE, which was not identified in the SSA as a long-term player, continues to play a key role, and given its change in policy directions, will probably remain active for years to come. Finally, SENAPA and its affiliated municipal water and sewer companies, the SEDAS, can definitely be considered key institutions in the shelter sector, particularly given this administration's emphasis on providing basic services.

With the changing roles of the various institutions in the sector, coupled with the growth in shelter programs, it would be useful to summarize the role each institution plays and the types of programs assigned to each. The following table gives a succinct picture of who is doing what.

TABLE 3

Role of Housing Institutions in Program Development

Type of Program	PRATVIR 1/	ENACE	BANMAT	BANVIP	Mutuals	Banco Hipotecario	SEDAS SENAPA
1. Serviced lots 2/		X					
2. Service hook-ups			X	X			
3. Community W&S Serv.	X			X	X	X	X
4. Community Elec.Serv.	X			X	X		
5. Core Unit Loans		X	X		X		
6. Materials Loans			X				
7. Core Unit Projects		X			X		
8. 30 to 60m^2 Units				3/	X		
9. Over 60m^2 Units				3/	X	X	
10. Water & Sewer Macro					X		
11. Rural Shelter	X		X				
12. Emergency Shelter			X	X			

1/ Administered by the Ministry of Housing and Construction.
2/ Lots with electricity and communal water taps, only
3/ BANVIP is involved only in the financing aspect of these units, not in their development.

The role of each institution can be briefly defined as follows:

- Ministry of Housing & Construction: Acts as policy and planning agency for the shelter sector, and implementing agency for the PRATVIR program.

- ENACE: Functions as national construction company, and developer of low income programs, such as serviced lots, core unit loans, and core unit projects.

- BANMAT: Provides materials loans for construction of housing and services; also provides assistance in rural areas and for emergency housing.

- BANVIP: Regulates Mutuals, provides loans to communities for services, and administers FONAVI & BCR lines of credit.

- Mutuals: Provides a broad range of lending programs from loans to communities for services to middle income housing loans.

- Banco Hipotecario: Provides loans for middle to upper income housing.

- SENAPA & SEDAS: Macro water and sewer installation and services.

4. Mutual Savings and Loan System (Mutuals)

The most troubling event over the past several years was the failure of the mutuals to serve the housing market. While the mutuals had received financial assistance from BANVIP and had had access to FONAVI financing since the latter's creation in 1979, the amount has not been sufficient to meet the need. Thus, the low level of funds, coupled with high interest rates on its own loans and other internal problems, has virtually driven the Mutuals out of the long-term mortgage market.

Beginning in 1986, the Mutuals began to have access to funds from special BANVIP programs set up with FONAVI and BCR lines of credit, which permitted the Mutuals to once again direct their lending activities to the shelter sector, and decrease their commercial and industrial lending activities. For example, loans for housing purposes comprised only 24 percent of the Mutuals' loan portfolio in 1982, while by the end of 1986, only four years later, housing loans had increased to 47 percent.

The increase in new housing loans accurately depicts the recent changes. In 1984, new housing loans by all Mutuals totaled I/.74 million of which I/.66 million was derived from BANVIP. This situation continued the following year, with increases in new loans reflecting the rate of inflation, at most. However, the increase in new housing loans in 1986 was startling, and reflects the inflow of funds from BANVIP using FONAVI and BCR financial resources. New housing loans in 1986 totaled I/.971 million ($67 million), which, even after accounting for inflation, represented a real increase of 400 percent over 1985. Even more impressive was the impact the new resources had

in redirecting the Mutuals' own resources to the sector. While in 1985, only I/.32.7 million of internal funds had been made for housing, by 1986 this had increased to I/.383.9 million ($26.5 million); a real rise of about 900 percent. The source of these internal funds was the large amount of cash and near cash assets held by the mutuals because solid lending opportunities were lacking.

The estimate for 1987 calls for more of the same, although the increase will not be so dramatic. New housing loans are projected to increase by about 60 percent, adjusted for inflation.

TABLE 4

Mutual Savings and Loans
New Housing Loans
(millions of Intis)

	1984	1985	1986	1987(proj.)
FONAVI/BANVIP Resources	66.0	92.4	383.9	1,728.0
Internal Resources	8.4	32.7	587.1	1,561.0
Total Loans	74.4	125.1	971.0	3,289.0

Source: BANVIP

Growth in both deposits and the number of savers has increased. By the end of 1986, the number of savings accounts totaled 1.86 million, an increase of almost 11 percent over 1985, which implies that about 10 percent of the population has an account in a Mutual. Since rural families generally eschew savings in the urban based Mututals, it can be estimated that somewhere between 20 and 25 percent of urban families, children included, have savings accounts in a Mutual.

Savings in Mutuals has increased significantly. By the end of December, 1986, the Mutuals as a group, had mobilized I/.2.85 billion ($197 million) in sight and term deposits, which in real terms was an increase of 30.9 percent over the previous year. Relative to savings in all financial institutions, the Mutuals outperformed the market, which increased somewhat less during the same period, 27.1 percent.

A specific example is Mutual Peru, which in 1985 placed 10 percent of its loan originations in the housing sector. However, in just the following year, housing loan originations represented 77 percent of their total portfolio. While not all the Mutuals have achieved as dramatic a turnabout, the new thrust is clear. In addition, the type of housing being financed by the Mutuals has changed, and instead of high standard units of $60m^2$ and higher, the Mutuals have begun to finance core units of $30m^2$ and less.

Part of the reason for the Mutuals' change in policy is due to the emphasis the government is placing on assisting greater numbers of low income families to improve their shelter conditions. But equally as important was the government's decision to open a below-market interest rate line of credit from the BCR and FONAVI. These lines of credit gave the Mutuals the financial resources to carry out the new government policy.

This change has had a major impact not only on the Mutuals' financial condition but also on their overall operations. While in 1985, the Mutuals were highly liquid, with cash and near cash about equal to loans, by the end of 1986, loans had exceeded cash by a 3 to 1 margin. Deposits, which had always exceeded loans by a comfortable margin, are no longer being mobilized to the degree required to generate new loans. Previous to 1986, deposits had frequently exceeded loans by as much as 2 to 1, however by 1986, the volumn of deposits in the system barely exceeded loans, and in some Mutuals, notably Mutual Peru, the two were virtually equal. Nevertheless, deposits are increasing, as mentioned earlier.

Coping with this increased level of activity, together with providing a new type of loan product, has not been easy for the Mutuals. One role they have had to assume in order to participate in the BANVIP-BCR program is that of housing developer, a role that is both complex and demanding. If not all the Mutuals have participated in the new programs, it may be because of the difficulty in assuming the role of developer, and perhaps, assuming the associated risk.

As a group, the Mutuals continue to operate at a loss: expenses exceed income. The reason for this continued loss varies, but some of the most common are:

- inadequate financial spread;
- high operating expenses due to over-staffing and high salaries;
- excessive number of non-performing loans;
- large advertising expenses; and
- in Lima, too many Mutuals competing for the same Inti.

The Mutuals outside Metropolitan Lima continue to outperform, from the profit standpoint, their big city cousins, generally due to more conservative lending practices and lower operating costs in the provinces.

Consolidation of the Mutuals in Lima has started. One weak Mutual, Pueblo, just merged with a stronger mutual, Puerto, with BANVIP making a capital contribution to the newly consolidated group to help ensure its viability. Six Mutuals continue to operate in Lima, with one, Mutual Peru, accounting for approximately one-half of all city-wide savings & loan activities. The merger process will likely continue, and in five years or so, perhaps only 3 Mutuals will be operating in Lima. This would probably strengthen the system as a whole.

Decapitalization of the mutual system will continue to be problem as long as the interest rate ceiling on loans remains lower than the rate of inflation. While the increase in deposits have, to a certain degree, alleviated the adverse impact of decapitalization, the use of some sort of maintenance of value technique would ensure that the Mutuals' financial assets retain their value, as well as help to mobilize savings. To date, however, no maintenance of value technique has been designed, much less adopted.

The mutuals are also actively involved in construction loans to individual homeowners to be used to expand or improve housing. These are 2 year term loans at a 48 percent interest rate, and only homeowners whose employers agree to a loan check-off procedure are eligible.

5. Peruvian Housing Bank (BANVIP)

The major change to affect BANVIP recently was the creation of two new government programs which it administers. In mid-1986, the GOP set up the BANVIP-FONAVI and BANVIP-BCR programs in which allocations or lines of credit are channeled though BANVIP to the Mutuals and a few other financial institutions to finance low income housing. (These two programs are more fully described in the first part of this section.) BANVIP's role is to act as a fiduciary agent for FONAVI and BCR as well as ensure that the resources are used appropriately and as planned. The amount of FONAVI resources dedicated to this program is expected to total I/.580 million for 1986 and 1987, while BCR's resources will total I/.350 million in 1986, with I/.1,300 million requested for 1987. (An important aspect of this program has been the large increase in BANVIP's assistance to the Mutuals, as was discussed in the sub-section on Mutuals.)

With the addition of those funds, plus the change in government policy as to their use and the use of other BANVIP resources, BANVIP has established four basic housing programs or lines of credit, as follows:

. Shelter Support line of credit: Loans to legal entities for the installation, expansion and improvement of utility services, the construction of new low income units, and development and expansion of existing low income housing.

. Urban development and rural support line of credit: Loans to institutions and legal entities to build or improve community facilities in urban and rural areas.

. Institutional Line of Credit: Loans to Mutuals, BCH, Savings Banks, and BANMAT to carry out government mandated shelter programs.

. Commercial Line of credit: Loans to individuals and firms to support the construction industry.

The Shelter Support line of credit is a well-established and successful operation. Most of the loans are directed to community groups/associations and cooperatives to bring water and sewer services, and electricity into a community and its residents' homes. As of 1985, about 80 percent of resources from this line of credit have been used for water and sewer, and electricity loans, involving 92 percent of all beneficiaries. The following table gives a clearer picture of this program.

TABLE 5

Shelter Support Line of Credit: Activity 1980-1987

	No. of Loans	No. of Families Assisted	Investment (million) 1979 Intis	Investment (million) 1979 US$	Investment per Family (US$)
1980	67	23,905	--	28.4	1,188
1981	78	23,569	--	59.4	2,520
1982	197	61,808	--	115.6	1,870
1983	146	62,660	--	61.1	975
1984	121	39,523	--	29.2	739
1985	167	36,943	--	22.9	620
1986 1/	--	62,500 6/	543.4	37.5 3/	600 5/
1987 2/	--	146,000 6/	1,577.3	87.6 4/	600 5/
	Totals	456,908		441.1	

1/ Preliminary
2/ Projected
3/ 1986 exchange rate US$1.00 = I/.14.5
4/ 1987 exchange rate US $1.00=I/.18.0
5/ Estimated cost per family
6/ Calculated by dividing total US$ investment by estimated average family investment.

Source: BANVIP

Several conclusions can be drawn from the above table. The average real investment per family under this program has been steadily decreasing, indicating that a larger number of families have been assisted with a given investment. The real investment figure today is $600 per family after reaching a high of $2,520 in 1981. After reaching a peak in 1982 and 1983, due to a large influx of external funding, total investment fell in ensuing years. However it is once again increasing, and the number of families assisted in 1986 was at an all-time high, with the expectation that even greater numbers of families will be assisted in 1987.

6. National Housing Fund (FONAVI)

To understand fully the role of FONAVI in the shelter sector, it should be pointed out that FONAVI is not an institution, per se, but rather a financial mechanism for obtaining and directing funds to the shelter sector. Determining how and where FONAVI places its funds is made by the Ministry of Housing and Construction, while administration of the funds is BANVIP's responsibility. Thus FONAVI is a most crucial tool in the government's arsenal of programs.

Two principal policy changes have affected FONAVI in the recent past. One was the decision by the government at the end of 1985 to modify the formula on which contributions are based. This effectively doubled the amount of contributions to FONAVI (after adjustment for inflation). Whereas total contributions in 1985 was I/.309.4 million, it jumped to I/.1,009.3 million in 1986. In 1987, the figure is expected to increase to I/.2,055.1 million, although most of the increase will be due to inflation.

TABLE 6

FONAVI

CONTRIBUTIONS BY YEAR
(in millions of Intis)

Year	Intis (Current)	Intis (Constant)
1979	3.4	3.4
1980	34.7	21.6
1981	78.4	28.2
1982	110.1	22.9
1983	145.9	13.5
1984	259.6	11.4
1985	308.4	5.7
1986	1,009.3	10.7
1987 1/	2,055.1	10.8 2/
Total	4,004.9	128.2

1/ Projected
2/ Deflated assuming an inflation rate of 100%.

Source: FONAVI

The second change involved the allocation of FONAVI's resources. During FONAVI's initial two years, 1980 and 1981, all resources were allocated to ENACE for the construction of high standard units, although poor families who contributed to FONAVI had access to those units through the lottery. In 1982, SENAPA and BANMAT gained access to FONAVI's funds, reducing somewhat the flow of resources to ENACE. However in 1986, the FONAVI net was spread even wider, and a much larger group of institutions was granted access. The PRATVIR program, administered by the Ministry, was allocated almost 5 percent of FONAVI's funds that year, with an increase to 9 percent the following year. Through the newly created BANVIP-FONAVI program, about 20 percent of FONAVI's funds was allocated in both 1986 and 1987 to the Mutuals for low income projects. And a group of research institutions received I/.10 million in 1986 to carry out activities to support the sector. ENACE, which at one time had use of 100 percent of FONAVI's resources, is now reduced to about 50 percent. FONAVI's budget for 1987 appears very similar to 1986's budget, except, of course, that it is larger to account for inflation.

TABLE 7

Use of FONAVI Resources
(Millions of Intis)

	1986 2/		1987 3/	
	Amount	%	Amount	%
Banco de Materiales	89.3	8.8	180.0	8.8
ENACE	519.0	51.4	1,004.6	48.9
Ministry of Housing + Const. 1/	44.0	4.4	180.0	8.8
SEDAS/SENAPA	148.0	14.7	261.6	12.7
Mutual S&Ls 4/	199.0	19.7	382.3	18.6
Others	10	1.0	46.6	2.2
	1,009.3	100.0	2,055.1	100.0

1/ Funds to be used for rural programs under Ministry's PRATVIR operation.

2/ Only I/.366.0 million of 1986 allocation was used in that year; the remaining I/.643.3 million will be disbursed in 1987, giving a total of I/.2,698.4 million for 1987.

3/ Budgeted

4/ A few other institutions are eligible to use this allocation, and to date, the BCH has used a small amount.

Source: MHC

FONAVI's funds are loaned, not granted. However, the 3 percent interest rate makes FONAVI's funds very attractive. As discussed in the previous section, this below market, and below real, interest rate permits housing institutions to undertake programs that, given past and current levels of inflation, would not have been possible otherwise. Nevertheless FONAVI is effectively being decapitalized in spite of the increase in contributions. But the situation has improved. The change in policy which stresses the development of low income solutions means that increasing numbers of FONAVI's contributors have access to the fund, which was not the case previously when most of the resources financed fewer units of high standard, high cost housing.

FONAVI is essentially a tax mechanism, with the revenues being directed to a particular sector, in this case, the shelter sector. But not every "tax-payer" contributes, only wage-earners; and noncontributors outnumber contributors. Moreover, expanding the scope of the program means that increasing numbers of people who do not contribute are receiving benefits, due to the community wide benefits of some of the infrastructure projects, for example. Some thought, therefore, might be given to restructuring the program to either incorporate more contributors, and/or devise some way to charge beneficiaries who are not contributors.

7. Banco Hipotecario

Traditionally, the role of Central Mortgage Bank (Banco Central Hipotecario) has been both to make individual loans for the purchase of homes and development loans to project developers. More recently, as part of the National Housing Plan, BCH has been given access to low-cost FONAVI and BCR funds. By combining these funds with their own resources, BCH is able to lend money to developers at below-market interest rates. These developers are then able to build housing solutions which are affordable to low income households. In this way, BCH has become an additional actor in the low-cost housing market, although their involvement is not nearly on the scale of ENACE or the mutual banks.

In keeping with the government's goal of decentralizing urban development away from Metropolitan Lima, BCH is also beginning to implement more programs for the development of low-cost housing in provincial urban areas. Again, low-cost FONAVI funds will be used to allow BCH to make loans at subsidized interest rates. The government is currently exploring ways to provide basic solutions in these areas, where incomes are lower than in Lima, at affordable costs to households. Among the alternatives being explored to solve this problem is to provide a system of differential interest rates, with lower rates in secondary cities than in Lima, thereby reducing the monthly payments of households in those cities. The interest rate differentials would be funded by making loans with a higher proportion of FONAVI funds than the current 15 and 22 percent loans.

8. Banco de Materiales (BANMAT)

BANMAT continues to make extraordinary strides both in its growth as well as its efforts to design and implement new programs to serve low income families. In addition to the 16,750 loans made in its first four years of operations to 1983, BANMAT made 38,200 loans in the subsequent three years, including 19,650 in 1986 alone. The 1986 figure was almost double the 1985 mark and BANMAT has decided to limit lending in 1987 to about 10 percent over the previous years' activity in order to adjust for growing pains. The average loan was about $800 in 1986, which is far below the peak of $1,480 in 1982, and given BANMAT's current policies, the average loan amount in 1987 will not likely exceed last year's figure.

BANMAT is one of the more innovative institutions in the shelter sector. Recognizing that the need to secure adequate loan guarantees has limited its ability to serve self-employed persons, BANMAT instituted a new lending guarantee mechanism whereby a number of loans made to families in one locality are cross-guaranteed by every other borrower, regardless of the employment status. This type of guarantee is especially effective in small rural settlements where all the residents are life long neighbors and friends and essentially all are self-employed.

Loans for homes to be built with non-conventional materials such as adobe are being emphasized. In 1987, some 25 percent of all materials loans consisted of non-conventional materials, or better said, for traditional materials, versus only 10 percent in the previous year. A 15 percent loan interest rate, as compared to 22 percent on other types of materials loans, provides an incentive for households to choose nonconventional materials.

Needless to say, the cost of these types of materials loans are far below conventional materials costs such as concrete block and brick. And by reducing the size of the individual materials loan, more loans can be made with a given pool of investment funds. This in part, explains why the average loan is, and will remain, below $1,000 for some time to come.

Since its creation in 1980, BANMAT has relied on FONAVI funds for the bulk of its resources. However, this is changing. Of the I/.365 million (about $20 million) budgeted for 1987, only one-half will be derived from FONAVI contributions. The remainder will be generated from recycled FONAVI loans, which have retained more of their purchasing power due to the short term nature of the loans, and from Departmental Development Corporations loans to BANMAT. BANMAT's successful track record has convinced those corporations that their own development funds can be used more effectively for shelter purposes by channeling them through BANMAT.

BANMAT's operational expenses appear high, although the nature of its lending programs requires more staff input than a normal banking operation. Nevertheless, BANMAT is breaking even due to the low interest rate on loans from FONAVI and the State Corporations and materials mark-ups, which allows a sufficient spread to cover operating expenses.

To ensure that BANMAT reaches its target group of low income families, it has placed a monthly family income ceiling of I/.5,000 for eligibility in its programs. This is around the national median income figure.

BANMAT is currently planning a pilot savings program which would permit families to make savings in materials until needed for construction purposes. USAID has strongly supported this prospective activity. To counter the problems that might occur if BANMAT began acting as a true depository institution (in spite of its name, BANMAT does not have a banking charter), families who wish to participate in this program would simply make a materials prepayment. The attractiveness of this program is that it would mobilize savings, thereby increasing BANMAT's lending resources.

The market for BANMAT's loan programs is almost infinite. Up to 1.5 million eligible Peruvian families need this type of assistance. However, satisfying the need seems to be more contingent on BANMAT's operational and implementational capacity, not financial resources. Currently BANMAT has sufficient funds for current programs, and if the savings program is successful, BANMAT may be in the enviable position of being financially self sufficient.

9. National Building Company (ENACE)

The new administration has decided to permit ENACE to continue to function as the national construction agency, contrary to the recommendation in the 1985 SSA. Nevertheless, ENACE's policy with respect to the provision of shelter for low income housing has changed dramatically. Rather than use FONAVI's resources to build high standard, multifamily units for FONAVI beneficiaries, poor and not-so-poor alike, ENACE now only develops low income solutions, regardless of the income level of the prospective beneficiary.

Currently, ENACE is developing three basic types of shelter solutions:

- lots with electricity and communal water,
- home construction loans, and
- basic core units with full services.

The solutions range in price from $800 to $4,000, which are generally affordable by urban families with incomes below the median, particularly given the interest rate subsidy on FONAVI funds (see previous section). In 1987, ENACE expects to develop 36,000 serviced lots, provide 7,000 home construction loans, and build 8,000 core units.

It should be pointed out that ENACE does not make its own policies, but rather implements policies determined by appropriate government agencies, in this case the Ministry of Housing and Construction. While the decision to reorient ENACE's use of FONAVI's funds was not ENACE's decision to make, it has, nevertheless carried out admirably the governments new policies by developing appropriate and affordable solutions for low income families.

10. National Water Supply and Sewerage Service (SENAPA)

In mid 1986, SENAPA completed a National Plan for Basic Sanitary Services. This plan, which was formally approved by the National Planning Institute, establishes the sector's goals and objectives for the ten year period ending in 1995, describes the various programs to be undertaken during that period, and estimates the required financial resources and their application. The plan is predicated on the overall nationwide objective to provide services to the largest possible number of low income families. Priority is given to water and sewer works that are absolutely indispensable to good public health, as well as being basic in their design and execution, especially in marginal urban settlements and the Trapecio Andino area. Priority is also given to improving and upgrading existing water and sewer installations.

SENAPA essentially functions as the national water and sewerage authority, with responsibility for the provision and operation of this service in all urban areas. In the eight largest cities, however, SENAPA has local affiliates which attend to this need, leaving SENAPA to serve the remaining urban areas. Nevertheless, about 100 District Councils and Provinces operate independent local water and sewer companies.

The National Plan, in which SENAPA is designated as the principal implementing agency, identified a number of problems in the sector. In varying degrees, they are:

- Sporadic service
- Loss of water
- Lack of quality control
- Under-usage of some systems
- Deterioration of facilities
- Lack of communication among institutions serving the sector.

Rates, and the collection of same, were not noted as a problem although other documents point out that rates are not set at levels to cover costs. The failure to bill customers and nonpayment by customers when billed, were also not mentioned although the consensus of the most knowledgeable observes that these are serious problems. Other problems that have been mentioned relate to staff quality and coordination of the provision of off-sites and on-sites on a timely basis.

SENAPA and its affiliates are charged with installing and operating main line or trunk system, i.e. macro infrastructure, as opposed to the installation of service lines within communities or sub-divisions and individual hook-ups, i.e. the micro infrastructure. The latter is generally a function of the community needing water and sewer services, and financing is available principally from BANVIP, although other institutions such as BANMAT and PRATVIR are also involved today in these activities.

The National Plan contemplates a 10 year investment program of $945 million of which $701 million would flow to urban areas. If successful, this investment would permit about 88 percent of the urban population to have water and sewer service by 1995, as compared to 64 percent in 1983. In the rural area, the figure for 1995 is 70 percent versus 8 percent in 1983. These are ambitious plans, but given the focus on basic solutions they are not impossible. The five year program to 1990 anticipates about 81 percent water and sewer coverage in urban areas, and 69 percent nationwide, and a five year investment of $495 million.

The Plan expects to obtain financing from a number of different sources, including internally generated funds, budgetary support, grants, loans, etc. The following table shows the source and the use of funds for 1986-90 period.

TABLE 8

SENAPA-Source and Use of Funds
1986-90

Source	(million of US$)	%
Internal Funds	112.5	16.5
National Budget	160.4	22.9
Internal Loans	64.4	9.2
External Loans	179.6	25.6
Grants	31.3	4.5
Community & Individual Contribution	152.4	21.8
Total Sources	700.6	100.0
Uses		
New Water Works	220.5	31.4
New Sewerage Works	274.8	39.2
Sub Total	495.3	70.6
System Rehabilitation	97.2	13.9
Debt Services	85.9	12.3
Technical Support	22.3	3.2
TOTAL	700.5	100.0

Funding from external sources has not yet been secured. Traditionally, IDB has been a major funding source, and will probably continue as such. The World Bank has also been a lender, although not to the same degree as IDB. Bilateral assistance has also been tapped, with most of the funds used for technical assistance and pilot or emergency projects. USAID has been active in rural areas with its rural sanitation program.

The ability of SENAPA, its affiliates, and other agencies to provide the major plant and trunk installations is crucial to steady growth in the provision of services to homeowners. According to current regulations, approval for installation of a community water or sewer system cannot go ahead unless the major works and services are in place. And in the event the micro systems are installed, yet the macro services are not available, then the services will not be on line to the homeowners who have paid for this service.

11. Project for Rehabilitating Farmland and Rural Housing (PRATVIR)

This is the only new institutional body in the sector, and in fact, it is actually a division of the Ministry of Housing and Construction. This is the only lending program implemented directly by the Ministry. It is still a very new program, having been established in 1986 to direct more assistance to the rural areas. Essentially, the purpose of PRATVIR is to rehabilitate farming systems crucial to the efficient operation of small farms. Community based loans are provided for such purposes as rebuilding reservoirs, irrigation canals and terraces, reforestation projects, development of small agroindustry and handicraft projects, etc. In addition, loans will be made to construct and rehabilitate rural housing, provide basic infrastructure services, community facilities, electricity and other community services. The thrust of this project is directed to small, even isolated, rural communities, which, to date have largely been overlooked by the government.

All of PRATVIR's resources are derived from FONAVI, which makes loans for 10 years at 3 percent interest. In 1986, I/.44 million ($3 million) was budgeted for PRATVIR, although only I/.7.8 million was disbursed. For 1987, FONAVI will allocate I/.180 million, which together with last years undisbursed funds, will permit PRATVIR to invest up to I/.216.2 million ($12 million) this year.

Due to the newness of this project, it is impossible to evaluate its performance.

D. Housing Needs and Affordability

1. Introduction

The purpose of this section is to update the 1985 housing needs analysis by showing how changes in government housing policies instituted since that time have affected the ability of the sector to meet national and regional housing needs. The current government emphasis towards simpler, low-cost solutions is aimed at increasing the number of shelter solutions which can be provided by both the public and private sectors. When used in conjunction with the interest rate subsidy, such a policy also makes housing more affordable to low income households. The analysis presented in this section will attempt to provide quantitative measures of how effective these policies are in meeting the housing needs and in providing affordable programs.

The main instrument to be used in this analysis is AID's Housing Needs Assessment (HNA) model. The HNA model has proven to be a useful tool for evaluating housing policy, in that it provides a benchmark for an "ideal" housing policy, against which other situations might be compared.

The remainder part of this section will proceed first with a forecast of annual housing needs for Peru over the next 20 years. This will be followed by an analysis of housing affordability, with special emphasis being given on applicability of current shelter programs and subsidy levels in meeting needs for low income households. The last subsection will discuss the estimated private and public costs of meeting those needs. By means of comparison, this will be compared to the level of housing investment currently being invested by the formal private and public sectors.

2. Aggregate Housing Needs: 1987 - 2007

Forecasts of regional and national housing needs for the next twenty years are listed in Table 9. These estimates arise from the following five sources:

- housing to accomodate future population growth;
- normal replacement of adequate units which have deteriorated;
- upgrading of substandard units;
- replacement of non-upgradeable substandard units; and
- housing to relieve overcrowding.

These estimates are derived from the Housing Needs Assessment model. Through assumed forecasts of population growth, it assigns a new unit to each household which is to be formed in a given year. Each dwelling which deteriorates is also assumed to be replaced in that year. In order to accurately predict the quantity of housing which would be required to provide all households with adequate shelter, (i.e., the "ideal" situation), upgrading and replacement of non-upgradeable units is assumed to occur at a constant rate (2 percent per annum) throughout the term of the analysis. Overcrowding is also assumed to be relieved at a constant rate. It is assumed that no substandard or overcrowded housing is built over the next twenty years. All other assumptions used for the model are outlined in Appendix 1.

As is shown in Table 9, annual construction of 346,000 units would be required to meet housing needs by 1992. This is equivalent to 7 percent of the forecasted existing housing stock, and would include providing shelter for 108,000 new households by 1992. All in all, new construction would involve almost two-thirds of all house construction, or about 220,000 units. By 2007, annual construction needs are predicted to increase to 386,000 units, of which 73 percent would be for new construction.

Trends in housing needs differ little from those reported in the 1985 housing needs analysis. Urban growth is still expected to be strong, with the highest rates of growth expected to be in cities outside of the Lima-Callao metropolitan area. On average, about 60 percent of new households formed in the next twenty years are expected to be found in these urban areas. In all urban areas, new construction needs of 170.000 units per year in 1992 (and 236,000 per year by 2007) and the upgrading of 70,000 units per year point to the dramatic amount of resources that would have to be applied to the shelter sector to meet the requirements of population growth and urban migration.

TABLE 9

HOUSING STOCK AND ANNUAL REPLACEMENT (1992-2007)
(Thousands of Units Per Year)

	1992	1997	2002	2007
Lima-Callao				
New Households	37.5	40.2	43.4	48.1
Replacement of permanent units (2% p.a.)	20.1	24.7	29.5	34.7
Replacement of 1987 non-upgradable units	3.2	3.2	3.2	3.2
Construction to relieve overcrowding	5.3	5.3	5.3	5.3
Subtotal: New Construction	66.0	73.4	81.4	91.4
Total Construction	86.8	94.2	102.2	108.3
Total Lima-Callao Housing Stock	1,281.1	1,508.6	1,752.1	2,038.4
Other Urban Areas				
New Households	63.0	70.0	73.4	78.8
Replacement of permanent units (2% p.a.)	27.6	35.3	43.7	52.3
Replacement of 1987 non-upgradable units	6.0	6.0	6.0	6.0
Construction to relieve overcrowding	7.5	7.5	7.5	7.5
Subtotal: New Construction	104.2	118.8	130.6	144.7
Total Construction	150.8	165.4	177.2	188.2
Total Other Urban Housing Stock	1,855.0	2,242.6	2,647.1	3,078.7
Rural				
New Households	7.4	-1.5	0.9	0.4
Replacement of permanent units (2% p.a.)	24.9	27.7	28.8	30.6
Replacement of 1987 non-upgradable units	9.3	9.3	9.3	9.3
Construction to relieve overcrowding	6.8	6.8	6.8	6.8
Subtotal: New Construction	48.4	43.4	45.9	47.0
Total Construction	108.5	103.5	106.0	95.7
Total Rural Housing Stock	1,503.1	1,537.1	1,575.5	1,611.2
Total Country				
New Construction	218.6	235.6	257.8	283.0
Upgrading 1987 upgradable units	127.5	127.5	127.5	103.2
Total Construction	346.1	363.1	385.3	386.3
Total Housing Stock	4,639.2	5,288.3	5,974.7	6,728.3

Rural areas will also face a high level of housing needs, despite a low rate of new household formation. Over half of the future shelter requirements in rural areas can be met by the upgrading of units (54,000 units per year in 1992). The next highest level of resources must go to replacement of deteriorating units (about 25,000 to 30,000 units per year). Additional new construction levels are relatively low, reflecting the decreasing share of rural population relative to urban areas.

3. Affordability of Public Housing Solutions and the Appropriate Level of Subsidies

Another use of the Housing Needs Assessment Model is to assess the level of housing affordability, and to compare this affordability level to the costs of alternative housing solutions. Since the government has recently changed its policies toward the provision of low income housing, it is useful to compare costs of proposed solutions to average affordability levels. To do this, the HNA model is used to predict affordability levels for average households in each income quintile in three regions of the country; Lima-Callao, other urban areas, and rural areas. These affordability levels are then compared to the costs of various solutions currently being offered to low income households to predict the levels of subsidies which are required to provide the shelter.

Since few households have the resources to purchase housing in a lump sum, the terms of mortgage financing directly affect the monthly cost of solutions as well as the affordable purchase price, or capital cost, of housing. Higher interest rates, shorter terms and lower down payments all increase monthly costs. In addition, to the extent that a high inflation rate leads lenders to charge higher interest rates, it also reduces affordability at least in the early years of a loan.

The current shelter policy of the Peruvian government is to provide basic levels of shelter services to low income households, and to make it affordable through the use of subsidized interest rates. These rates, which generally run at 22 percent (but can go as low as 10 percent), are far below the market rate of 48 percent, which itself represents a negative real rate in comparison to inflation rates which are running from 70 to 100 percent annually. 1/ This type of pricing policy distorts the issue of whether the standards being offered are appropriate for the target group from a standard of affordability, and what the appropriate subsidy policy should be. In order to make a proper assessment of the affordability of current housing standards, their cost should be evaluated in a relatively inflation-free environment, and then compared to household ability-to-pay. After this is done, the impacts of inflation on cost and affordability can be analyzed, and the size of the current subsidy compared to the forecasted subsidy needs.

1/ While inflation rates were running at an annual rate of about 60 percent in 1986, they were approaching 100 percent in the first quarter of 1987. Inflation rates for April 1987 indicated a continuation of the upward cycle.

The first column of Table 10 lists affordable monthly payments and capital costs under a scenario of 10 percent inflation. This level was picked as a reasonable goal which can be pursued by the Peruvian Government. It is assumed that mortgage funds are being lent at a 13 percent interest rate, or 3 percent in real terms. Following current government programs, all mortgage loans are made for ten years, except for those made to the lowest income groups (for construction materials only), which are made for 42 months. Households are assumed to spend between 20 and 30 percent of their incomes on shelter, with the higher ratios being paid by lower income households.2/ All other assumptions are explained in Appendix 1.

Affordable monthly payments and capital costs are listed for income quintiles in each of the three regions. The variations in payment levels reflect differences in incomes between each area. As can be seen by examining column 1 of Table 10, most households can afford reasonable housing solutions under a low inflation economy and 13 percent interest rates. For example, the average household in Lima's lowest income quintile could obtain a loan for the equivalent of a partially serviced lot with a core unit, or for an upgrade to private water and sewer connections. The affordability standards in other urban areas are much lower due to lower levels of household income, but, as is indicated by Table 11, materials loans or core units are still affordable to average income households in the second income quintile in those cities 3/. But even with the high subsidy, current shelter solutions are financially inaccessible to the lowest quintile in Peru's secondary cities, and households in the lowest two rural income quintiles.

Charging a positive interest rate under current economic conditions would greatly reduce these housing affordability levels. Column 2 of Table 10 shows that when the annual inflation rate reaches 100 percent and the 3 percent real interest rate is maintained, estimated affordable capital costs fall by more than 80 percent. As column 3 shows, the government's current interest rate policy helps households to recover much of this loss.

2/ The average relationship of low income households spending higher percentages of income on housing than higher income households is almost universal. See S. Malpezzi, et.al. Housing Demand in Developing Countries, World Bank staff working paper No. 741 (May 1985).

3/ It should be noted that average urban incomes vary widely across cities, being highest for cities or the coast, and lower for cities in the Selva and the Sierra. Therefore affordability for the lowest quintile in some cities away from the coast may not meet the cost of any housing programs.

TABLE 10

AVERAGE AFFORDABLE CAPITAL COSTS, 1987,
UNDER ALTERNATIVE INFLATION AND SUBSIDY POLICY SCENARIOS

Region, Income Quintile		1 10% Inflation 13% Interest	2 100% Inflation 103% Interest	3 100% Inflation 15-22% Interest
Lima/Callao				
Lowest	1	$3,863	$672	$1,876
	2	5,795	1,008	4,186
	3	9,014	1,568	6,512
	4	11,268	1,960	8,140
Highest	5	21,463	3,733	15,504
Other Urban				
Lowest	1	$450	$151	$436
	2	2,243	390	1,620
	3	3,364	585	2,430
	4	4,112	715	2,970
Highest	5	7,327	1,274	5,292
Rural				
Lowest	1	$190	$64	$184
	2	736	128	531
	3	1,009	176	729
	4	1,261	219	911
Highest	5	2,438	424	1,761

I/. 18.0 = $1.00

Table 12 shows the public sector housing solutions which correspond to each affordable capital cost. They represent the highest affordable shelter option available to average households in each income group. The shelter options, of which brief descriptions are given in Table 11, are a representative sample of the types of public sector solutions currently being offered to low income households. In urban areas, these solutions range from roughly $600 in materials loans used to construct an adobe house and put in piping for eventual water and sewage hookups, to a mortgage on a $4,000 30m^2 core house equipped with water, sewage, and electrical connections. In between these are options such as lotes tizados, or unserviced lots; partially serviced lots; and construction or upgrading loans.[4/] It is more difficult to identify programs for rural households, because much attention is being given to an integrated development plan for rural communities, including markets and community development. However, two typical programs listed in Table 11 are materials loans and public infrastructure provision.

The first column of Table 12 shows the maximum affordable option accessible to different groups of households under each inflation/interest rate scenario. With a 13 percent rate, all options up to a high standard upgrading loan are available even to the average household in Lima's lowest income quintile, and construction loans to all but the lowest income quintile in other urban areas. But under the current high inflation scenario, the poorest 40 percent of Lima's population could afford no more than a partially serviced lot or material loan, and even an infrastructure upgrading loan, let alone a serviced lot, would not be available to any but the wealthiest households. Outside of Lima, urban households could afford no more than a basic lot, and households in the lowest two quintiles could not be reached by any of the government's programs. Similarly, in rural areas, even the most basic of shelter solutions would be available only to the wealthiest of households.

As can be seen, the current subsidy system, with 15 and 22 percent interest rates, makes basic solutions available to poorer households. However, an interest rate subsidy may not be the most efficient mechanism for reducing shelter costs (See Section II: Policy Issues). And it is possible that affordable shelter solutions can still be obtained with a higher mortgage interest rate, thereby allowing benefits to be provided at a lower resource cost. For instance, it can be shown that allowing mortgage interest rates to rise to the current maximum level of 48 percent would still leave several solutions affordable for many Lima households. Accessibility would, however, be lower for other urban areas and for rural areas. It is feasible that additional subsidies to households in these areas might be required if a higher interest rate were charged.

4/ Note that prices are assumed to be the same for Lima-Callao and other urban areas. In reality materials costs outside of Lima are expected to run from 15 to 25 percent higher than in Lima. However, land prices are expected to be lower. For the purpose of this analysis, it is assumed that these opposite effects balance out perfectly.

TABLE 11

HOUSING LOAN ALTERNATIVES FOR AFFORDABILITY SIMULATION

Program:	Cost	Interest Rate	Loan Term	Down Payment	Public Service Connections
Urban Areas					
Materials loan for adobe house	$ 600	15	3.5	10	--
$90m^2$ Basic Lot (Lotes Tizado)	556	22	3	10	Common
Upgraded Materials Loan*	1,000	22	3	10	Common
$18m^2$ Core Unit	1,389	22	10	10	Common
Construction loan and lot	2,222	22	10	10	Common
Upgrading	2,778	22	10	10	Individual
$30m^2$ Core house on $90m^2$ lot	4,222	22	10	10	Individual
RURAL AREAS					
Materials loan for adobe house	$ 389	15	3.5	10	--
Public Infrastructure	556	22	10	10	Common

I/. 18.0 = $1.00

*desired minimum policy option

TABLE 12

AVERAGE AFFORDABLE HOUSING SOLUTION UNDER ALTERNATIVE INFLATION AND SUBSIDY POLICY SCENARIOS

Region Income Quintile		1 10% Inflation 13% Interest	2 100% Inflation 103% Interest	3 100% Inflation 15-22% Interest*
Lima/Callao				
Lowest	1	Ugrading loan	Materials loan	18m2 core unit
	2	30m2 core house	Upgraded materials	30m2 core house
	3	30m2 core house	18m2 core unit	30m2 core house
	4	30m2 core house	18m2 core unit	30m2 core house
Highest	5	30m2 core house	Individual Connections	30m2 core house
Other Urban Areas				
Lowest	1	--	--	--
	2	Construction loan and lot	--	18m2 core unit
	3	Upgrading loan	Lotes tizado	Construction loan and lot
	4	Upgrading loan	Materials loan	Upgrading loan
Highest	5	30m2 core house	Upgraded materials	30m2 core house
RURAL				
Lowest	1	--	--	--
	2	Materials Loan	--	Materials Loan
	3	Public Infrastruc.	--	Public Infrastruc.
	4	Public Infrastruc.	--	Public Infrastruc.
Highest	5	Public Infrastruc.	--	Public Infrastruc.

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* Current policy

4. Costs of Meeting Housing Needs

Table 13 summarizes the Housing Needs Assessment model's estimates of housing investment and subsidy levels required to meet Peru's housing needs over the next ten years. In the HNA simulations, the model assigns to each household requiring shelter one of three housing solutions: a low-cost materials loan, a combination of two solutions --loans for a core unit and a partially serviced lot, or a $30m^2$ house on a serviced lot (see Table 11). The model estimates not only the amount of investment which the household can make, but also the required subsidy, which is the difference between the cost of the assigned solution and the amount which households can afford to pay.

The investment estimates are made under the assumption that all households which need a solution receive one, and that overcrowding is relieved at an even rate over the twenty year analysis period. All necessary upgrades are assumed to be made, at a rate of 2 percent per year. As stated earlier, it is somewhat unrealistic to assume that all necessary investments can be supported by the economy. But from a policy perspective, the analysis yields important information on what direction shelter policy should take. More importantly, it can be used in comparison with the 1985 HNA model to suggest the extent to which changes in the GOP's shelter policy have come closer to meeting national housing needs.

The first group of numbers in Table 13 shows the real levels of housing investment and subsidy required in a 100 percent inflation scenario, where loans are made with positive real interest rates. Total annual housing investment required to meet shelter needs would, by 1992, be about $505 million, or 2.5 percent of GDP. Almost half of this requirement is expected to come from urban areas outside of Lima. This compares with an estimate in the 1985 HNA of 3.7 percent of GDP. One explanation for the lower estimate in 1992 is that housing solutions currently being offered are of lower costs than those offered in early 1985, and therefore require a lower level of household investment. On the other hand, the high interest rates reduce the quantity of housing which may be purchased, so that aggregate capital value of the required investment falls with inflation. The lower part of the table shows the level of subsidy required to make the solutions affordable. It shows an estimated subsidy of $225 million, or 1.4 percent of GDP in 1992, a proportion almost identical to that of the 1985 housing assessment. By 1997, an estimated $654 million (current dollars), or 2.7 percent of estimated GDP, would be needed to meet shelter requirements.

As is shown in the middle column of Table 13, the government's current shelter subsidy amount accounts for a large part of the required subsidy. If all households were able to receive a shelter solution, then the reduced interest rate would provide approximately 85 percent of the required subsidy. Only $34.7 million of additional subsidies, or 0.2 percent of projected GDP, would be needed to meet required housing needs.

In fact, a comparison of columns 2 and 3, reinforces the extent to which the current subsidized interest rates are reducing the negative impact which high inflation rates have on affordability. For instance, in the low inflation scenairo presented in column 3, housing subsidies make up only a small portion (3%) of total housing investments, while they entail 3.3% of total investments under current policy. However, the lower inflation does suggest a higher required level of housing investment, as lower inflation and

interest rates make higher level solutions more affordable. Required investment estimates of $1,370 million in 1992 (and $1,571.5 million in 1997) are still significantly higher than those forecast under current policy.

In evaluating housing subsidy levels, it is perhaps more important to notice the effect of the increased subsidy on the level of private housing investment. On a national scale, a subsidy of $190 million is predicted to encourage an additional $540 million in private housing investment. In other words, each $1.00 of subsidy promotes $2.85 of private investment in housing. According to current projections, it would bring about $1.79 in additional investment in 1987. This reflects the fact that the subsidy allows progressive development, the most prevalent means of housing construction in Peru, to proceed at a more accelerated pace. To some extent, it might encourage new constrution which would not otherwise have taken place. And because of the types of programs being offered, it probably brings a sizeable degree of "informal" housing, which might escape measurement, into the "formal" sector. To the extent to which this latter result occurs, the "new" investment figure is overstated. Yet the shelter policy is still effective because it allows the "informal" sector to utilize resources and proceed with progressive development (especially in the program of infrastructure services, although the benefits are not limited to this aspect of housing services) in a more efficient manner.

5. Evaluation of the New Policy

It is, of course, unrealistic to expect that the economy can, at this time, provide the level of resources required to meet annual shelter needs even if these levels are as low as 5 to 7 percent of GDP.

The Peruvian shelter sector, led by actions of the central government through the Ministry of Housing and Construction, has made great strides in refocusing shelter programs to provide a greater number of shelter solutions within given resource constraints. This policy shift is exemplified by the change in emphasis from high cost, multifamily units in large developments (such as those produced by ENACE) to unserviced and serviced lots, construction materials loans, and core houses. The GOP estimates that, in 1986, some 195,000 households received shelter, including infrastructure, assistance from publicly supported programs; this proportion should increase as the government moves towards more low-cost solutions. In fact, it is estimated that the public sector alone will develop 520,000 housing units between 1986 and 1990, which will receive assistance from material loans (21,500 to be given in 1987) and supervised construction loans. And the government has, with a good degree of success, encouraged private sector lenders such as the mutuales to promote low cost housing developments. While these actions do not meet the total housing needs of the country, they represent major improvements over the types of programs which were previously being offered --programs which, due to their high per-unit costs, did not reach as great a number of households.

It is important to quantify, as much as possible, the magnitude of this policy shift. In the 1985 assessment, it was estimated that by 1990, the formal sector, both private and public, would be providing only 23,000 units per year, or one-sixth the total need in urban areas. Today, according to

current government plans, as much as three quarters of the predicted construction needs, or 130,000 units, could be provided by public sector programs in 1992. Others could be provided through publicly supported private sector programs. While this is still far below the necessary 346,000 units per year estimated to meet annual shelter needs in the early 1990's, the increased number represents a major improvement in the redirection of resources to meet the housing demands of the future.

The Housing Needs Assessment provides support for the need to provide subsidies in order to reduce the high impact of inflation. It also suggests that a re-evaluation of subsidy levels is in order. The affordable solution listed in Table 12 suggests that a reduction of subsidies to some households (particularly those in Lima) would still leave households with affordable solutions. The freed up resources could then be used to increase program accessibility in the rest of the country, or to other non-housing resources. It must be emphasized that the affordability levels do not necessarily mean that housing standards are too low, but rather that subsidies may be too high. And in an economy with scarce resources, subsidies should be kept to their minimum necessary levels.

TABLE 13

INVESTMENT REQUIRED TO MEET SHELTER NEEDS
(Millions of Current Dollars)

INVESTMENT REQUIRED:	100% Inflation 103% Interest Rate 1992	1997	Current Policy 1992	1997	10% Inflation 13% Interest Rate 1992	1997
National	$ 504.7	$ 654.0	$1,040.5	$1,207.9	$1,370.1	$1,571.5
% of forecast GDP	2.5	2.7	5.2	5.0	6.8	6.5
Lima-Callao	181.6	223.0	513.3	596.1	831.1	975.4
% of forecast GDP	0.9	0.9	2.6	2.5	3.6	3.4
Other Urban	219.0	308.2	412.4	477.7	492.2	558.5
% of forecast GDP	1.4	1.3	2.1	2.0	2.5	2.3
Rural	104.1	122.8	114.8	134.0	161.4	181.9
% of forecast GDP	0.5	0.5	0.6	0.6	0.8	0.8
SUBSIDY REQUIRED:						
For Urban Shelter	145.4	242.7	25.8	45.1	24.4	28.4
% of forecast GDP	0.9	1.0	0.13	0.23	0.12	0.12
For Rural Shelter	78.1	122.8	8.9	10.5	16.5	13.0
% of forecast GDP	0.5	0.5	0.04	0.05	0.08	0.05
Ratio of increased investment arising from increased subsidy (as compared to a zero-subsidy scenario)	--	--	2.84	1.79	--	--

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I/. 18.0 = US$1.00

E. Regulatory Issues and Physical Standards

1. Shelter Costs

Many, if not the majority, of the factors that have prevented shelter costs from falling significantly still remain. Nevetheless, a number of changes have been made that have lowered costs, chiefly resulting from the application of new government policies in the shelter sector. Costs have been reduced, therefore, in the following areas:

- Lot sizes have been reduced; $90m^2$ lots are common in new low income projects.
- Unit sizes are much smaller, with units as small as $20m^2$ the new base standard. Such units have been designed to permit both outward and upward expansion.
- Communal water taps, usually 40 families per tap in ENACE serviced lots projects, are permitted.
- Use of non-conventional materials such as adobe is encouraged.
- Serviced lots are provided with the beneficiary required to build his/her home using self-help techniques.

There is probably some room to lower costs further. Arguments can be made that on-site infrastructure standards are too high, e.g., high electrical standards still apply to low income communities (underground lines, modern light fixtures on closely spaced poles, three phased lines, etc.) It also appears that little has been done to prevent delays in project approval and execution, although priority projects that have national significance have moved along more swiftly than normal.

2. The Private & Public Formal Sector

One of the issues raised in the 1985 SSA was the inability of FONAVI to use its funds to leverage growth of the housing finance system. With the development of the BANVIP-FONAVI and BANVIP-BCR programs, this leverage has been achieved. The Mutuals are now investing large sums of money in the housing market, money that previously had been held in cash assets and invested in non-housing loans. The Mutuals have also been able to increase deposits at a rate in excess of the average increase in savings for all financial institutions. This presages a growth in the Mutuals, which are still considered private sector institutions in spite of government participation in their directorates. Moreover, the Mutuals are developing the capability to finance and in many cases promote, low income shelter solutions.

Public sector participation in the shelter sector has not decreased. However, drawing the line between public and private participation in the sector is increasingly difficult, particularly given the increased role of self-help, which is both a formal and an informal activity. Most dwelling units are designed, financed, and built by a combination of the public, private, and the popular sectors, as the informal sector is sometimes referred to.

A typical low income shelter solution might be developed by the following parties:

- Serviced lot (electricity and communal water) developed by ENACE, a public body;
- A home construction loan from a Mutual, a private body, using FONAVI funds in part, and its own funds in part;
- A community water & sewer loan from BANVIP, a public body, to the community association, a private/popular group;
- Construction of the home by a private contractor or the homeowner;
- Construction of water and sewer internal distribution system by a private contractor;

Yet the real growth has been in the informal, or popular sector, as will be described later.

Regarding rental housing, legislation to change current laws is still pending, and any expectation that new legislation will be enacted soon is slight. A concensus on how rent controls should be modified has not yet been achieved.

3. The Informal Sector

The role played by the informal sector in the provision of low income shelter has, if anything, increased over the last few years. Generally, observations in the 1985 SSA still apply, although the Banco de Materiales has modified its lending criteria, principally by limiting assistance to families whose incomes are below I/.5,000 monthly, which ensures that materials loans reach the low income target group. Nevertheless, families are still investing in housing to the highest degree possible principally because of a perceived and real need to hedge against inflation. In cases where the actual construction of a unit or improvement is not yet appropriate, families are still stocking up on materials, rather than save cash until sufficient cash is accumulated to purchase all the necessary materials. Negative real interest rates for savings are responsible for this phenomenon. The response of the Banco de Materiales has been to design a pilot materials savings program which is one attempt to free up illiquid assets for investment in the financial sector.

The land titling issue remains outstanding. With the continued increase in new marginal settlements, it seems as if the backlog will never be reduced, yet the government continues to seek ways to speed up the land titling process, including ways to offer some sort of secure tenure to "squatters" in lieu of formal titling.

The Instituto de Libertad y Democracia is proposing a unique solution to the problem, which is a title insurance policy for untitled property. Essentially it would work this way. Once a "squatter" puts together sufficient evidence, whatever that may be, that he/she is the de facto owner of the lot and improvements, i.e., the home in which he resides, he may obtain an insurance policy, for which he pays a premium, and which is equivalent to title insurance. With this policy in hand, he may apply to a financial institution for a loan up to a fixed percentage of the value of the

property on which he has title insurance. The proceeds from the loan may then be used for a variety of purposes, although in all likelihood the proceeds will be used to continue home improvements. This loan may be likened to a home equity loan or line of credit. In fact, the loan permits a homeowner to convert illiquid assets, i.e. the lot and improvements into liquid assests, i.e. cash.

Local insurance companies and financial institutions have evinced to ILD their interest in participating in this program. ILD has yet to work out all the procedures and prepare the necessary documentation to initiate operations. But if the program is successful, millions of Intis can be put to work in poor communities to improve shelter conditions, generate job opportunities, and in general, improve the quality of life for many poor families.

The potential for this insurance program to generate large amounts of capital is almost unlimited. Assume the average housing investment by an untitled homeowner in a marginal urban settlement is $800, which is approximately one-half the amount of a materials loan from the Banco de Materiales for a basic unit. Assume further that the homeowner has made this investment in his/her home with the family's savings, which is true in 80 percent of the cases. If there are 200,000 families who meet these criteria, then the amount of illiquid assets tied up in home investments reaches $160 million. This is probably a conservative estimate, but regardless it shows the potential for this type of program.

II. Shelter Policy Issues

Overall, the GOP has instituted positive changes for redirecting housing sector resources to low income families. More low cost solutions have been developed and implemented, so that a greater number of households can be reached at the same resource cost. A wide variety of housing solutions are being offered to fit the different types of needs in the shelter sector. The implementing institutions have adjusted to the change in policy by rapidly developing and offering low cost solutions. Resources are being funneled into the system by FONAVI and the BCR, while the government is assisting private sector actors, such as the mutual S&Ls, to reestablish themselves in the low and middle income market. Also, a greater level of resources are being provided to attack shelter and infrastructure shortages in secondary cities and in rural areas.

Basically, in the shelter sector, the government of Peru is promoting the types of policies that governments do best: reducing barriers which inhibit private sector development, and providing the types of services which, because of their public nature, can not be provided by individual households. This is being accomplished by programs which promote progressive development at a pace which is affordable to each individual household, whether it be in terms of construction loans, loans for lot purchase, or, at the high end for the target group income scale, serviced core houses. The government is helping to establish and strengthen the institutions which provide access to financing for low income households, thereby contributing to a more efficient mobilization of private individual resources. In helping to satisfy public needs, the GOP has recognized that more of their own resources must be

dedicated to supplying those facets of housing services which households cannot provide by themselves, such as water, sewerage and electrical connections. Yet in providing access to these services, government is gearing solutions toward household affordability, so that, for instance, community water connections, sometimes serving as many as forty families, are being offered rather than more expensive individual connections.

Issue No. 1 - Housing Subsidies and Financial Decapitalization

While these improvements have been made, the distortionary effects of the inflation which has wracked Peru over the last decade are still being felt in the housing market. Real wages, still far below their peak 1975 levels, have limited the ability of households to pay for shelter. More importantly, financial policies implemented to reduce inflation have had a destabilizing effect on the country's housing finance institutions. Inflation, reduced purchasing power and caps on mortgage interest rates, kept far below the rates of inflation in the past virtually halted private sector presidential lending. Deposit interest rates were also capped at levels below the mortgage interest rate (in order to ensure an adequate spread through which the financial institucions could meet their operating costs). Since most depositors in the Mutual system save either to secure a housing loan or obtain a high yield, savings also plummeted. It is true that below market rate FONAVI funds made available by the government have been successful in stimulating the housing market and the construction industry. Yet these subsidies have created distortions in the economy, and have not put a stop to the inflation caused decapitalization of the financial institutions.

The issue of subsidies and decapitalization must go hand-in-hand, due to the financial impacts of the interest rate subsidy. As has been established in the Housing Needs Assessment, the current high inflation levels may justify the need for some type of subsidy over the short term, at least so long as fixed-rate mortgages are used. The housing subsidies do provide a number of external economic and social benefits, which have included (but are not limited to) the reestablishment of the mutual banks as a viable participant in the economy, increased mobilization of both formal and informal sector resources into the financial system, and a sizeable boost for the construction industry, which serves as a strong generator of employment and provided the greatest percentage gain in the 1986 economic recovery.

The current housing subsidy policy is basically an ad hoc instrument, established to reduce the user cost of housing yet without an analysis of what types of reductions are necessary, how they can best be achieved and what the impacts of the policy instrument will be on the rest of the economy, especially on the financial sector. An honest and straightforward analysis of these issues should help the GOP to maximize its potential in strengthening the housing sector and providing shelter to the greatest number of people. In providing a guideline for this analysis, the following issues should be discussed as part of a future policy agenda:

1. Subsidy and housing affordability levels should be carefully examined to ensure the lowest possible subsidy cost to the government. If allowed, subsidies should be focused so that they only go to those most in need. This may entail the establishment of different rate schedules for different cities and regions (where costs and incomes vary widely), and for alternative types of lending solutions.

2. Once subsidy levels have been established, the government should examine alternative mechanisms for their provision. Interest rate subsidies not only contribute to the steady decapitalization of the housing finance system, but are inefficient in their allocation of financial resources. In addition, the combined effects of high inflation rates and below market rates of interest established by the government, drastically reduce the value of the future mortgage payments stream. Alternative subsidy instruments may be less expensive for the government while keeping monthly costs to households at low levels. The government should evaluate whether a subsidy mechanism combined with lower interest rates would reduce subsidy costs while maintaining current sectorial policy goals.

3. All subsidies should be explicity recognized, and the government should consider and plan the economic circumstances in which the subsidies can be phased out or eliminated. No government can permanently sustain the level of subsidies needed to provide all of its citizens with decent housing, and it should limit subsidies (and eventually eliminate them) to those with absolute need. In order to properly evaluate a subsidy program, it is important that the government explicitly recognize all subsidies, including the provision of land and infrastructure at below-market rate costs, and those occuring because of government price controls, as well as subsidies from negative interest rates.

One benefit of the current interest rate subsidy is that it is intended to be phased out as inflation falls to more acceptable levels. If the interest rate subsidy is replaced by other instruments, then the government should establish mechanisms by which they, too, will be eliminated in the future.

4. Alternative financing mechanisms should be explored in order to reduce the rate of decapitalization of the housing finance institutions. The effects of high inflation and negative interest rates not only undermine the stability of financial institutions by reducing the value of the stream of future payments, they also reduce their ability to attract savings deposits. On the other hand, allowing financial institutions to charge positive interest rates in an environment of 100 percent inflation, in the absence of price subsidies, makes mortgage costs unaffordable. Clearly, the best policy that the GOP can pursue in reducing the rate of decapitalization is for inflation to fall to manageable levels. But until inflation reaches single digits, the GOP should consider alternatives to its current policy in order to help housing finance intitutions to maintain the real value of their assets.

There are several alternatives which might be considered, and each should be evaluated on the basis of its affect on housing affordability and its contribution to the stability of the entire financial system. One potential solution involves a mortgage loan indexation system. However, such a solution must be designed and monitored with care, because indexation in one sector can lead to a costly drain of resources from unindexed sectors into the indexed one. Other, possibly more viable solutions, are listed below:

- Allow the Mutuals to charge positive interest rates on the non-FONAVI funded part of their loans. A mortgage instrument might be designed which, when combined with low-cost FONAVI funds, would allow the Mutuals to charge the real market rate, but at the same time, would still be at a rate far below the inflation rate.

- Permit the use of graduated payment mortgages, and explore other types of alternative mortgage instruments.

- Expand the use of loans made in physical goods which maintain their real value, such as the Materials Bank, and promote a saving program where deposits take on the value of physical goods, rather than a cash value.

- Explore a system of co-ownership between the household and the bank, as an alternative to a standard mortgage instrument. Such a system would help the bank to maintain the real value of its investment over time, and help the household by reducing real monthly payments in the early years of the loan. Instead of mortgage payments, each installment would represent a purchase by the household of a given percentage of the property.

Issue No. 2 - Sectorial Coordination and Capacity

The institutions charged with implementing the government's shelter policies face a number of problems, both in the area of inter-institutional coordination as well as their internal institutional capacity. The 1985 SSA discussed at some length the coordination problems in the sector and recommended a variety of measures to ameliorate the problem. In some ways the coordination problem has diminished, due in part to the greater coordination of the housing and infrastructure components within the Ministry of Housing and Construction and the apparent increase in control that the MHC exercises over the sector. On the other hand, recent policy and program changes have raised new coordination issues, notwithstanding the fact that the sector has been growing almost exponentially. In addition, there are a number of new programs, the BANVIP-BCR and the BANVIP-FONAVI programs to mention just two, which involve many different institutions in the sector. There has even been the addition of a new "institution", PRATVIR, which plays a role in the rural sector, complementing hopefully, the activities of several infrastructure agencies and the Banco de Materiales.

A second problem in the sector relates to the government's decentralization policy, which covers not only decentralization of government functions, but also of programs. Coordination of MHC's role as the principal housing body, with the other shelter agencies, which must begin to develop programs in unfamiliar environments, is certainly more difficult. Already, it is evident that moving programs and money outside of the Lima metropolitan area is more time consuming and difficult than within Lima. And as programs expand outside the Lima area, the posture and cooperation of municipal governments and their agencies become more relevant, particularly as they relate to the MHC and other shelter agencies.

Finally the implementation capacity of the shelter institutions is becoming more acute. With the increase in the scope of operations of most institutions, the change in types of programs, and the push to develop projects outside Lima, the institutional capacity becomes a crucial element in achieving sector goals. For example, of the I/.1,009.3 million allocated from FONAVI for various sector activities in 1986, only I/.366.0 million was actually disbursed that year, which represents a utilization of 33 percent. While this percentage may be unusually low, due to the new policy direction for use of FONAVI resources, it is also indicative of the capacity problems within the sector.

As a first step, it is suggested that the GOP consider the preparation of a formal housing policy which reflects the new directions being taken today in the sector. Based on this policy, a national sector plan could be prepared, one which incorporates the National Plan for Basic Sanitation. The policy and the plan would enunciate and delineate the roles and responsibilities of the various institutions.

Issue No. 3 - Infrastructure Provision

The new focus on infrastructure as an integral part of the shelter sector and the drive to provide basic infrastructure services to the great majority of Peruvian families, have drawn new attention to the sector problems. Various documents, including the National Plan for Basic Sanitation, discuss those problems, which can generally be classified as technical, financial and institutional.

Technical problems include management and maintenance of the existing systems, and relate to such areas as:

- Water losses,
- quality control,
- system deterioration,
- under-utilized capacity and
- sporadic service. 1/

Financial problems relate to the need to secure adequate funds not only to maintain the existing system but also for system expansion and construction. Included in this category are the problems of the adequacy of rates to cover costs (whether capital or operational), as well as the degree to which users are billed and collections are made. There is a sufficient body of evidence that demonstrates that current rates are insufficient, that many customers are not billed, and that bills are not paid.

Finally, the operational and coordinational capacity of the different infrastructure agencies, principally SENAPA, the SEDAS, municipalities and BANVIP, may not be entirely adequate to achieve the sector's objectives. Delays have occured in the development of on-site infrastructure due to lack of the required off-site works. The reasons vary from lack of planning to inadequate capacity of SENAPA (or the SEDAS) to fullfill their commitments.

1/ Refer also to Page 23 of this report.

It is recommended therefore that the GOP evaluate the capacity of the infrastructure agencies implementing various components of the shelter sector and that action should be taken to correct the deficiencies identified in the area.

1. SENAPA and the SEDAS should establish a rate structure which, at a minimum, covers its operating costs. While the long-term social benefits of subsidizing macro-infrastructure may be rationalized, a government which is strapped for resources cannot and should not subsidize the operating costs of providing water and sewer services. Policies must be adopted to make sure that revenues cover costs. These policies may or may not include a cross-subsidy mechanism which reduces costs for low income users. However, all costs must be recovered in order to establish a self-sustainable system, and to make users responsible for the resources which they use (i.e., reduce waste and leakage).

2. The separation of investment needs in maintaining and managing macro-infrastructure from capital development requirements. Investment in new infrastructure requires a different planning process than does that for improvements and repair of current capital investment. The government should consider establishing separate funds for each of these needs, explicitly recognizing the funding requirements incurred by both funds over the short and long term.

3. The GOP should investigate the establishment of a National Trust Fund dedicated to investments in water and sewer infrastructure. Currently, financial sources for infrastructure provision are uncertain, and such a fund could provide a source from which SENAPA and the SEDAS could draw resources for project development, and could enhance the sector's ability to secure external funding sources to provide this important component of economic development.

4. In addition, the government should consider how sectoral policies can be better achieved through coordination with Departmental Development Corporations.

APPENDIX 1.

DATA AND ASSUMPTIONS FOR THE HOUSING NEEDS MODEL

The Housing Needs Assessment model, discussed in Section I (C) of the main text, is an update of the assessment done for the 1985 shelter policy report. As such, it implements many of the assumptions used in that analysis, updating information as required and changing assumptions where more recently available data suggests is appropriate. The purpose of this appendix is to briefly outline the assumptions used in running the model.

A complete listing of the data follows the text.

A. Housing Needs Estimation

The base year (1987) housing stock is estimated by dividing total population for each region by the average household size in that region. Future year housing needs are forecast by projecting population growth rates and household size from these base year estimates. Population data was obtained from the National Institute of Statistics (INE). As is shown in the first data table, they reflect forecasts of high growth rates for urban areas, with Metropolitan Lima growing at a slower rate than other urban areas. Population growth in rural areas is expected to be minimal. Average household size is assumed to be 5.5 in urban areas and 4.6 in rural areas. Average urban household size is expected to decline at a gradual rate.

The model requires that the housing stock be divided according to the proportion of permanent, upgradeable, and non-upgradeable units in the stock. Unfortunately, there is no recent data available which provides such proportions. However, the 1985 HNA derived estimates of these shares from 1981 census data on housing and housing conditions. These estimates, presented below, are also used for the current analysis.

PERMANENT, UPGRADEABLE, AND NON-UPGRADEABLE
SHARES OF THE HOUSING STOCK, BASE YEAR

	Lima-Callao	Other Urban	Rural
Permanent	55%	30%	3%
Upgradeable	39%	62%	84%
Non-upgradeable	6%	8%	13%

Source: Peru Shelter Sector Assessment. Volume II: Technical Report, PADCO, Inc., July 1985.

Finally, it is assumed that all replacement and upgrading is done at an even pace throughout the twenty-year period of the analysis. In addition, it is assumed that there is a gradual increase in construction for the allevation of overcrowding. This is done by assuming an ideal level of 5.0 persons per household in urban areas, and 4.2 in rural areas, which is phased-in over the 20 year analysis period.

B. Estimating Household Income and Housing Affordability

Average household income is estimated in three steps. First, national income in each year is estimated from the forecasts of GDP. Based on current projections real GDP is projected to increase at a 4.0 percent annual rate. National Income (NI) is assumed to equal 78.8 percent of GDP (the ratio of NI to GDP in 1985). The second step is to allocate national income to each region. Following 1984 estimates by Richard Webb[1/], 57 percent of national income is assumed to accrue to metropolitan Lima, 28 percent to other urban areas and 15 percent to rural areas[2/].

Then, from this amount, average household income is found by dividing the region's proportion of national income by the number of households in the region (population divided by average household size). This technique provides average annual income estimates of $6,922 per household in metropolitan Lima, $2,411 in other urban areas, and $1,356 in rural areas (assuming a current exchange rate of 18 intis to the dollar).

The model also uses estimates of the mean income level in each quintile. This is found by applying quintile income shares to total income in each region. The estimates of quintile income are from a 1972 survey, which while slightly outdated, are favored over later studies which, due to their methods of analysis, might be even more inaccurate.[3/] The assumed shares of income accruing to each income quintile are listed in the tables at the end of this appendix.

Finally, the model needs inputs of the ration of housing expenditures to income, in order to forecast housing affordability. Estimates of these affordability ratios, listed at the end of the appendix, range from 30 percent of income for the poorest households to 10 and 20 percent for the wealthiest. While these are only rough estimates, they generally conform with recent cross-country estimates of housing affordability compiled by the World Bank.[4/] They also represent a complete reversal of the assumptions used in the 1985 HNA, which used estimated of low affordability ratios for low income households, and high ratios for wealthy households.

1/ Webb, Richard. "Economia Urbana", in Plaza Mayor No. 14, May-June 1984, pp 36-38.

2/ Despite the expected decline in population shares of rural areas, the income share is expected to remain unchanged due to explicit macroeconomic policies aimed at redistributing national income to rural areas.

3/ Amat y Leon, Carlos, Distribuciôn del Ingreso Familiar en el Perû, Universidad del Pacifico, 1981 (Second Edition), p. 38.

4/ Malpezzi, S. and Mayo S. (with D. Gross) Housing Demand in Developing Countries, Staff Working Paper No.741, Washington: The World Bank. May 1985.

C. Allocation of Units to Households for Investment Estimation

Most assumptions applied in this section are identical to those used in the 1985 HNA. The model assigns a particular housing solution to each household requiring a new unit or a unit upgrade. Units requiring replacement are assumed to be evenly distributed among the income quintiles. The assigned unit does not necessarily correspond to the most costly affordable unit. Lower cost units are evenly allocated across income quintiles, so that some households are assigned a solution with standards which are lower than other affordable units. In addition, the model identifies a target group -- households unable to afford a minimal solution -- and assigns them a subsidy which covers the difference between actual cost and affordable payment levels replacement. It is assumed that such units are evenly distributed among each income quintile.

D. Tables

POPULATION
(Thousands)

	1 Lima-Callao	2 Other Urban	3 Rural
1987	5,863.9	8,263.6	6,587.0
1992	6,768.7	9,814.6	6,643.5
1997	7,708.8	11,488.7	6,609.3
2002	8,691.5	13,180.4	6,629.5
2007	9,751.8	14,936.9	6,617.4

Source: INE

HOUSEHOLD SIZE

	1 Lima-Callao	2 Other Urban	3 Rural
1987	5.5	5.5	4.6
1992	5.4	5.4	4.6
1997	5.3	5.3	4.6
2002	5.2	5.2	4.6
2007	5.1	5.1	4.6

BASE YEAR GDP & AVERAGE ANNUAL HOUSEHOLD INCOME
(Dollars)

	1987
A. Gross Domestic Product (M)	16,437
B. Average Metro HH Income (K)	6.92
C. Average Urban HH Income (K)	2.41
D. Average Rural HH Income (K)	1.36

GOP Source: INE, projected to 1987

GDP GROWTH AND INFLATION
(Percent)

	1 1987/1992	2 1992/1997	3 1997/2002	4 2002/2007
A. Country GDP Real Growth	4.0	4.0	4.0	4.0
B. General Price Inflation	100	80	60	50
C. Construction Inflation	110	88	66	55

INCOME SHARE BY QUINTILE: LIMA-CALLAO
(Percent)

	1 Q1	2 Q2	3 Q3	4 Q4	5 Q5
1987	6	9	14	21	50
1992	6	9	14	21	50
1997	6	9	14	21	50
2002	6	9	14	21	50
2007	6	9	14	21	50

Source: Amat y Leon, 1981

INCOME SHARES BY QUINTILE: OTHER URBAN
(Percent)

	1 Q1	2 Q2	3 Q3	4 Q4	5 Q5
1987	4	10	15	22	49
1992	4	10	15	22	49
1997	4	10	15	22	49
2002	4	10	15	22	49
2007	4	10	15	22	49

Source: Amat y Leôn, 1981

INCOME SHARE BY QUINTILE: RURAL
(Percent)

	1 Q1	2 Q2	3 Q3	4 Q4	5 Q5
1987	3	7	12	20	58
1992	3	7	12	20	58
1997	3	7	12	20	58
2002	3	7	12	20	58
2007	3	7	12	20	58

Source: Amat y Leôn, 1985

RURAL SHARE OF TOTAL GDP
(Percent)

	1 (%)
1987	15
1992	15
1997	15
2002	15
2007	15

SHARE OF HOUSEHOLD INCOME DEVOTED TO HOUSING
(Percent)

		1 METRO	2 URBAN	3 RURAL
A.	Q1	30	30	30
B.	Q2	30	30	25
C.	Q3	30	30	20
D.	Q4	25	25	15
E.	Q5	20	20	10

HOUSING STOCK IN BASE YEAR
(Thousands)

		1 METRO	2 URBAN	3 RURAL
A.	Non-Upgradable	. 64	120.2	186.2
B.	Upgradable	416.9	931.5	1,202.8
C.	New Construction	586.4	450.7	43.0

HOUSING TOTAL INVESTMENT, PUBLIC EXPENDITURES, AND DECAY RATE
(Dollars)

			1 1987
A.	Total Housing Investment	(M)	268.27
B.	Public Capital Expend	(M)	214.38
C.	Accnt Decay Rt. M / U	(%)	2.0
D.	Upgrd Decay Rt. M / U	(%)	2.0
E.	Accnt Decay Rt. Rural	(%)	2.0
F.	Upgrd Decay Rt. Rural	(%)	2.0

Source: Central Reserve Bank (BCR)

NUMBER TO BE UPGRADED ANNUALLY & UNIT VALUE BEFORE UPGRADING
(Thousands)

		1 METRO	2 URBAN	3 RURAL
A.	1987/1992	20.8	46.6	60.1
B.	1992/1997	20.8	46.6	60.1
C.	1997/2002	20.8	46.6	60.1
D.	2002/2007	20.8	46.6	60.1
E.	Value Before Upgrade (K)	0	0	0

ANNUAL CONSTRUCTION TO REDUCE OVERCROWDING
(Thousands)

	1 METRO	2 URBAN	3 RURAL
A. 1987/1992	5.3	7.5	6.8
B. 1992/1997	5.3	7.5	6.8
C. 1997/2002	5.3	7.5	6.8
D. 2002/2007	5.3	7.5	6.8

ANNUAL CONSTRUCTION TO REPLACE NON-UPGRADABLE UNITS
(Thousands)

	1 METRO	2 URBAN	3 RURAL
A. 1987/1992	3.2	6	9.3
B. 1992/1997	3.2	6	9.3
C. 1997/2002	3.2	6	9.3
D. 2002/2007	3.2	6	9.3

CONSTRUCTION COST IN BASE YEAR
(Thousands of Dollars)

	1 METRO	2 URBAN	3 RURAL
A. Upgrade (K)	0.60	0.60	0.39
B. Core House (K)	1.20	1.20	0.56
C. Standard House (K)	4.22	4.22	--

COST SHARES FOR NEW HOUSE CONSTRUCTION
(Percent)

	1 METRO	2 URBAN	3 RURAL
A. Land	10	10	0
B. Infrastructure	15	15	15
C. Superstructure	75	75	85

COST SHARES FOR UPGRADES
(Percent)

	1 METRO	2 URBAN	3 RURAL
A. Infrastructure	50	50	50
B. Superstructure	50	50	50

TERMS OF HOUSING FINANCE, METRO
(Percent)

	1 Q1	2 Q2	3 Q3	4 Q4	5 Q5
A. Interest Rate (%)	15	22	22	22	22
B. Loan Term (years)	3.5	10	10	10	10
C. Downpayment Share (%)	10	10	10	10	10

TERMS OF HOUSING FINANCE, OTHER URBAN
(Percent)

	1 Q1	2 Q2	3 Q3	4 Q4	5 Q5
A. Interest Rate (%)	15	22	22	22	22
B. Loan Term (years)	3.5	10	10	10	10
C. Downpayment Share (%)	10	10	10	10	10

TERMS OF HOUSING FINANCE, RURAL
(Percent)

	1 Q1	2 Q2	3 Q3	4 Q4	5 Q5
A. Interest Rate (%)	15	22	22	22	22
B. Loan Term (years)	3.5	10	10	10	10
C. Downpayment Share (%)	10	10	10	10	10

APPENDIX 2.

Proposed Housing Guaranty Program

This SSA update gives a current picture of the Peru's shelter sector situation, and in particular, emphasizes how the sector has changed under the new administration. This administration has planned a very ambitious program to satisfy the shelter needs of exclusively poor people and has dedicated a significant amount of resources to achieve its goals. The updated Housing Needs Model indicates that, with some adjustments in the amount and use of financial resources, the goal of providing an affordable solution for virtually all poor Peruvians is eventually achievable. Nevertheless, given Peru's current economic and financial condition, it is unlikely that all the required resources can be generated internally to meet this objective.

At the same time, the current housing policy effectively promotes and fosters the attainment of this objective. Affordability, albeit with a subsidy element, is the basis on which programs have been designed and shelter solutions produced. With a full complement of financial resources, external and internal, to support these policies, it would be possible to demonstrate how a realistic housing policy and programs can provide affordable shelter solutions with services, for almost all urban families, and a significant percentage of rural families.

Peru is now planning to attain this goal. In 1986, assistance to the shelter area surpassed growth in population. While 5 percent of the population received some shelter assistance through the formal sector, the population grew by only 2.6 percent.

Nevertheless, the GOP will not attain the goal easily. Specific problems along the way include:

- An interest rate subsidy program that does not necessarily stretch the subsidy funds to the largest number of families possible, and therefore does not maximize the use of scarce, but crucial subsidized funds;

- High inflation that decapitalizes the sector's finance institutions, and prevents optimum recycling of existing and future financial resources:

- An institutional framework that, to date, finds it difficult to adequately support and guide a growing sector charged with financing and building massive amounts of low income shelter solutions;

- A water and sewer infrastructure sector (as part of the shelter sector) that is not efficient and effective enough to develop, manage and maintain the infrastructure necessary to meet the stated objectives.

The goal of a new HG project, therefore, will be to assist the GOP attain its objective of providing a continuing supply of affordable shelter solutions and infrastructure services to serve all poor and lower income Peruvian families.

The objective of this project will be to assist the GOP to provide water and sewerage service to significant numbers of new urban families, and overall 510,000 shelter solutions nationwide, by 1990.

Project Description

The project will be a multi-year sector program with an immediate action project designed for implementation in FY-87. The multiyear program, including the first stage for 1987, will be developed to cover the four year period through 1990.

Stage I will provide an immediate injection of $25 million in guaranty funds, which will be disbursed against an equivalent amount of existing loans issued by BANVIP's shelter support line of credit. In 1986, this line of credit generated $37.5 million in loans to marginal urban settlements, principally Pueblos Jovenes, for the construction of on-site water and sewer and electricity facilities, including residential hook-ups. 1987 investments will be over $25 million. Future stages of the multiyear HG program will provide an additional $50 to $75 million to assist the government in implementing its large shelter program. Future year program agreements and HG authorizations will be conditioned on the achievement of policy actions and investment objectives set forth and agreed to in each preceding year's program agreement. Funds will be used for serveral types of housing investment programs:

1. Funding of BANVIP generated loans for the construction of community water and sewer and electrical systems and residential hook-ups;

2. Loans to SENAPA and the SEDAS to finance, construct and install off-site infrastructure facilities and systems serving low income communities; and

3. In support of the ILD proposal for a title insurance program, establish a guaranty pool with an insurance company(s) writing the insurance policies, and/or establish a fund within a financial institution from which loans secured by insurance policies can be made.

4. Credits to the Materials Bank and the Savings and Loan Mutuals that fund materials loans, home improvement credits and infrastructure services for low income families.

5. Credits to ENACE for development of minimally serviced lots, supervised self help credit and loans to cooperatives and similar homeowner associations for development of minimum standard housing projects.

Criteria for BANVIP loans to be purchased are:

- Loans must have been written after January 1, 1986.

- All purchased loans must be current and performing.

- The only eligible loans are those issued by the Shelter Support Line of Credit, for communal water and sewer corrections.

- Borrowers must be from Pueblos Jovenes associations, or other designated low income community groups.

- Recipients must be part of a marginal community group.

Criteria for loans to SENAPA and SEDAS are:

- Loans must be for new projects.

- Plants and facilities must serve low income communities only.

- Disbursements are to be made against bills.

The borrower of the HG loan will be the Banco Central, and the implementing agencies will be BANVIP, SENAPA and SEDAS, and to be identified insurance companies and/or banks.

Upon authorization of the first $25 million HG, BANVIP will present to USAID a package consisting of a portfolio of eligible water, sewer and electricity loans, valued equal to or in excess of $25 million. Upon approval of this package, USAID will authorize the Banco Central to borrow $25 million from an eligible US lender. The Banco Central will disburse Intis to BANVIP as required to finance new loans to low income families. It is expected that the period of disbursement of Intis against eligible projects will proceed over several years.

Beneficiaries can be described as follows:

- families below the median income level;
- families currently occupying or owning a home/home site in a marginal urban community, usually a Pueblo Joven.

Project Costs (4 year program)

(In million of US$)

Phase I	On-Sites	Off-Sites	Other Programs	Total
BANVIP	25	--	--	25
Phase II				
BANVIP	40	--	--	40
SENAPA/SEDAS	--	20	--	20
Other Agencies	--	--	15	15
TOTAL	65	20	15	100

$65 million in HG funds will be utilized by BANVIP for its community water and sewer projects, of which $25 million will be for State I. An additional $20 million will be loaned to SENAPA to fund off-site infrastructure for low income communities. The remaining $15 million will be used to set up a guaranty fund to support the title insurance program and other low income programs.

Project Paper Requirements

Team leader/Housing Specialist	-	25 days
Housing Economist	-	18 days
Financial Analyst	-	18 days
Sociologist	-	10 days
Infrastructure Advisor	-	15 days