## 1. Overview

High rural-urban migration and urban population growth rates have resulted in concentrations of population in urban areas, especially Santo Domingo and Santiago. The average annual national population growth rate is 2.5%; however, in urban areas it averages between 5 and 6%. The damage caused by Hurricane David and Tropical Storm Frederic (September 1979) has exacerbated this situation, increasing immigration dramatically to urban areas. Because of these pressures, housing is clearly inadequate to meet the needs of the population. Urban deficits are estimated at 13-23%, while rural are as high as 64%. In order to satisfy the housing demand incurred because of population growth, an annual average of 32,900 units of new housing must be constructed: 29,300 urban units and 3,600 rural units.

## 2. Housing Policy and Institutions

Until recently, housing policy was characterized by a lack of any comprehensive policy or plan, and by neglect of the needs of low income households, which constitute the majority of the population. The government had established priority areas for urban/rural integration and development in an attempt to correct socio-economic imbalance, and to prevent any further polarization of growth (which might result from Hurricane David and Tropical Storm Frederick).

Shortly after Hurricane David, INVI (Instituto de la Vivienda - National Housing Institute) initiated a permanent consultative commission representing the principal public and private low-income housing institutions. The Comision Inter-Institutional para la Coordinacion de Programas de Viviendas (CICV) will have a permanent status and seek to plan and implement programs with both national and international financing. Members include: INVI, ODC, FDD, Caritas, SEOPC, CODIA, the Fundacion San Jose, the Asociacion para el Desarrollo de San Jose de Ocoa, Catholic Relief Services, Servicios Social de los Iglesias Dominicanos, IAD, INADA. The overall purpose will be to organize housing programs oriented toward low income households, and to coordinate financing. (See Disaster/Low-cost Housing for more information on this commission).

## Housing Institutions

| Entity | Legal Base Nature | Geographic Scope | Stated Objectives | Sources of Finance |
|---|---|---|---|---|
| Instituto Nacional de la Vivienda (INVI) | Autonomous 1962 | National urban/ rural | Planning, implementation and management of housing programs for low income households. | • subsidies<br>• loans<br>• payments by households<br>• issuing of cedulas |
| Savica (IAV) | (1961) | National | Serve public employees; serve autonomous institutions | • own resources<br>• loans from private international bank<br>• loans from D.R. Reserve Bank |
| Presidencia | --- | National (± 60% of actual programs in Santo Domingo) | --- | • own resources<br>• general fund<br>• authorized funds of other entities |
| Banco Nacional de la Vivienda (BNV) | (1962) An official credit institution -- autonomous and decentralized | National | To facilitate through savings and loan associations the acquisition and maintenance of houses for the maximum number of middle income and low income households. Among its other functions, the BNV is able to provide financial assistance to the SAAPs and supervise and control them and guarantee mortgages. | • loans<br>• payments by borrowers<br>• issuing of cedulas |
| Savings and Loan Associations (SAAPs) | (1962) Private credit entities | National (84% of actual loans concentrated in Santo Domingo and Santiago) | To provide loans for the construction, acquisition, conservation, repair or improvement of housing. The SAAPs are also able to finance the urbanization of land for the construction of housing. They are regulated by norms established by the BNV. | • savings deposits<br>• loans<br>• payments by borrowers |
| Banco Hipotecario (BH) | An official credit institution -- autonomous and decentralized (1971) | National (80% of loans concentrated in Santo Domingo and 18% in Santiago) | To undertake loans with real property mortgage guarantees, including loans for the construction and acquisition of housing. For middle income and high income households, particularly for the latter. | • loans<br>• payments by borrowers<br>• issuing of cedulas |

Source: AID Office of Housing. Dominican Republic Shelter Sector Assessment. April 1980.

Basic urban services are provided by the following institutions:

Corporacion del Acueducto y ALcantarillado de Santo Domingo (Santo Domingo Aqueduct and Sewage Company) CAASD

Instituto Nacional de Aguas Potables y Alcantarillado (National Institute of Potable Water and Sanitation) INAPA

Corporacion Dominicana de Electricidad (Dominican Electric Corporation) CDE

Secretario del Estado de Obras Publicas y Comunicaciones (Secretary of State for Public Works and Communications) SEOPC

Liga Municipal Dominicana (Dominican Municipal League) DML

28% of all arable lands are the property of the government agency Bienes Nacionales as a result of the transfer of the vast Trujillo holdings to the government. The two major holders of public lands are the Instituto de Agrario Dominicano (Dominican Agrarian Institute) IAD, and the Consejo Estadal del Azucar (state sugar board) CEA.

Many of the lands occupied by low income squatter settlements are part of government holdings. Thus, the relatively monolithic nature of the landholding pattern would expedite any contemplated land use policy change (such as transfer of title to the residents of squatter settlements located on public land).

## 3. Disaster/Land-cost Housing

The most widespread effect of Hurricane David and Tropical Storm Frederic was the destruction of an estimated 105,000 houses (80 million pesos), located primarily in the National District and Provinces of San Cristobal, Peravia, San Jose de Ocoa, Padre Las Casas, San Juan de la Maguana, Santiago, La Vega. Loss of roof structure was the most common type of damage sustained.

Immediately after the disasters, the GODR designated the Instituto Nacional de la Vivienda (INVI) as the responsible agency for coordinating emergency relief and assistance efforts of local, national and international agencies. INVI adopted the following policy guidelines: private and public sector organizations would participate in the relief/recon-

struction effort; relief/reconstruction programs would complement ongoing production activities and should be carried out as part of development objectives.

The "Post Hurricane Housing Repair and Reconstruction" table at the end of this section provides a summary description of the relief/reconstruction program:

With regard to Program 1, Repair of Roofs and Minor Damage, INVI performed minimum rehabilitation necessary to make each affected house habitable, provided employment for those individuals whose economic activities were paralyzed because of the disaster and made use of materials from damaged or destroyed housing. Program 2, Reconstruction and Repair of Major Damage, was directed at refugees still located in temporary housing solutions (schools, hospitals, etc.). The program involved structural repairs of housing in precarious and dangerous condition, reconstruction of walls, roofs and partitions and construction of new housing. Program 3, Row Housing, relocated non-property owner refugees to barrack housing. Program 4, Reconstruction and Development, directed the efforts and contributions of national and foreign private non-profit institutions. The principal objective of this program was the construction or reconstruction of population centers on an integrated basis.

During the execution of the programs, an inter-institutional group of public and private sectors was initiated under the leadership of INVI. This group, the Comision Interinstitucional de las Viviendas (CII-Viviendas), has attained permanent status and functions to respond to low-income housing needs, integrate the provision of housing with community development activities, and serve as a technology information and transfer center. The following organizations are members of CII-Viviendas: INVI, Public Works and Communications (SEOP); the Community Development Office (ODC); the Central Bank; the Dominican Agrarian Institute (IAD); the Dominican College of Architects and Engineers; the Dominican Development Foundation (DDF); Social Services of Dominican Churches (SSID); the San Jose Foundation; CARE; Catholic Relief Service (CRS); the Association for the Development of San Jose de Ocoa; the Office of Construction for North Bani; and Caritas of the Dominican Republic.

The USAID Emergency Housing Program was implemented through coordination with six PVO's to repair and rebuild destroyed or badly damaged rural homes. The program consists of three components: the AID/PVO Materials Package, the AID/INVI Zinc and Nails In Kind Donation and Housing Repair and the AID/INVI Basic Core Housing Construction.

The AID/PVO Materials Package subprogram channelled grant funds to six PVO's to finance home repair activities. The distribution of a building materials package was realized through a subsidized sale delivery mechanism. Each PVO was given an advance by AID to purchase a certain quantity of building materials (including wood, corrugated zinc roofing sheets, nails, cement, concrete blocks and hand tools), which the PVO then distributed through its network of affiliated service agencies. Actual repair/construction was the responsibility of the individual beneficiary, although technical assistance was provided in many cases.

The AID/INVI Zinc and Nails In-Kind Donation and Housing Repair program donated 20,000 sheets of galvanized and zinc roofing, 7,000 feet of ridgepoles and 50,000 pounds of nails to INVI to assist in the repair of the houses of the neediest families in the affected rural areas. INVI and PVO's supervised the distribution of building materials and the technical assistance support.

The AID/INVI Basic Core House Construction Program will provide core shelter for 930 families who are still residing in sub-standard housing. The program objectives include making maximum use of self-help participation in planning and construction activities to promote community support and to reduce costs.

The institutional response to the post-disaster housing need was criticized as inadequate. However, as a result of the experience, the abilities of the participating groups and agencies grew considerably. Over the year following the disaster, the technical and management capability of the institutions was significantly enhanced. Based on the experience of the Dominican Republic, the following recommendations were made:

1. Post-disaster surveys to determine need should be pre-planned, diagnostic, and directed to the specific needs of individuals.

2. Post-disaster plans and actions should be oriented to promote the effective recovery of the affected zones and to complement the economic development goals of the zones or sectors.

3. Beneficiary participation should be encouraged as an essential part of all housing relief/reconstruction efforts.

4. Housing solutions should be identified as to whether they are permanent or temporary and appropriately phased follow-up and modification activities should be implemented.

5. Effective mechanisms and criteria for making use of disaster assistance should be in place to take full advantage of aid.

## INVI Post Hurricane Housing Repair and Reconstruction Program

| Province | GENERAL TOTALS | | STAGE I: EMERGENCY | STAGE II: RECONSTRUCTION | | |
|---|---|---|---|---|---|---|
| | Investment (thous.RD$) | No. of Houses Reconstructed | Program I: Repair of Roof & Minor Damage | Program II: Reconstruction & Repair of Major Damage | Program III: Barracks Housing | Program IV: New Housing Development |
| Distrito Nacional | 2,226 | 5,089 | 3,000 | 289 | 1,800 | |
| San Cristobal | 1,534 | 18,019 | 4,500 | 12,889 | 294 | 336 |
| Peravia | 2,116 | 17,275 | 5,000 | 10,469 | 220 | 1,586 |
| Azua | 10 | 64 | | | 64 | |
| San Juan de la Maguana | 92 | 100 | | | 100 | |
| La Vega | 37 | 65 | | 65 | | |
| Sanchez Ramirez | 21 | 82 | | 82 | | |
| COUNTRY TOTAL | 6,101 | 40,694 | 12,500 | 23,794 | 2,478 | 1,922 |

Source: AID Office of Housing. The Disaster Relief Response in the Dominican Republic following Hurricane David and Tropical Storm Frederick with particular emphasis on the USAID Housing Program. December 1980.

USAID Emergency Housing
Disaster Relief Funds

| Agency | Budgeted Amount ('000) US$ | Disbursed Amount ('000) US $ | Houses to be Repaired/ Reconstructed | Houses Repaired/ Reconstructed |
|---|---|---|---|---|
| CARE | 130 | 130 | 595 | 595 |
| Servicio Social de Iglesias Dominicanos (SGID) | 129 | 129 | 355 | 355 |
| Southern Baptist Mission of the Dominican Republic | 3 | 3 | 22 | 22 |
| American Institute For Free Labor Development (AIFLD) | 50 | 50 | 430 | 430 |
| Dominican Development Foundation (DDF) | 150 | 135 | 477 | 438 |
| Catholic Relief Service (CRS) | 76 | 50 | 84 | 20 |
| Instituto Nacional de la Vivienda (INVI) | 1,485.5 | 144.5 | 180.3 | 151 |
| TOTAL | 2,284.5 | 641.5 | 376.6 | 2,011 |

Source: AID, Office of Housing, The Disaster Relief Response in the Dominican Republic Following Hurricane David and Tropical Storm Frederick. December 1980.

## 4. Housing Types, Materials, Construction and Services

### 4.1 Housing Types

Seven major housing types have been identified in the Dominican Republic. The standard single family house is the most common type of dwelling, housing 51% of the housenolds. 65% of urban units and 40% of rural units are single family. Rustic houses, 42% of all households, predominate in rural areas, and represent 56% of the rural housing stock. Provisional housing, which accounts for 1% of the households, is generally located on the outskirts of cities. Apartments and occupied buildings constructed for purposes other than housing contain about 4% of the households. Generally these types are located in urban areas. Bateys, located on sugar plantations, represent .07% of the housing stock. A residual category, other collective housing, consists of mainly urban dwellings such as barracks, jails, etc.

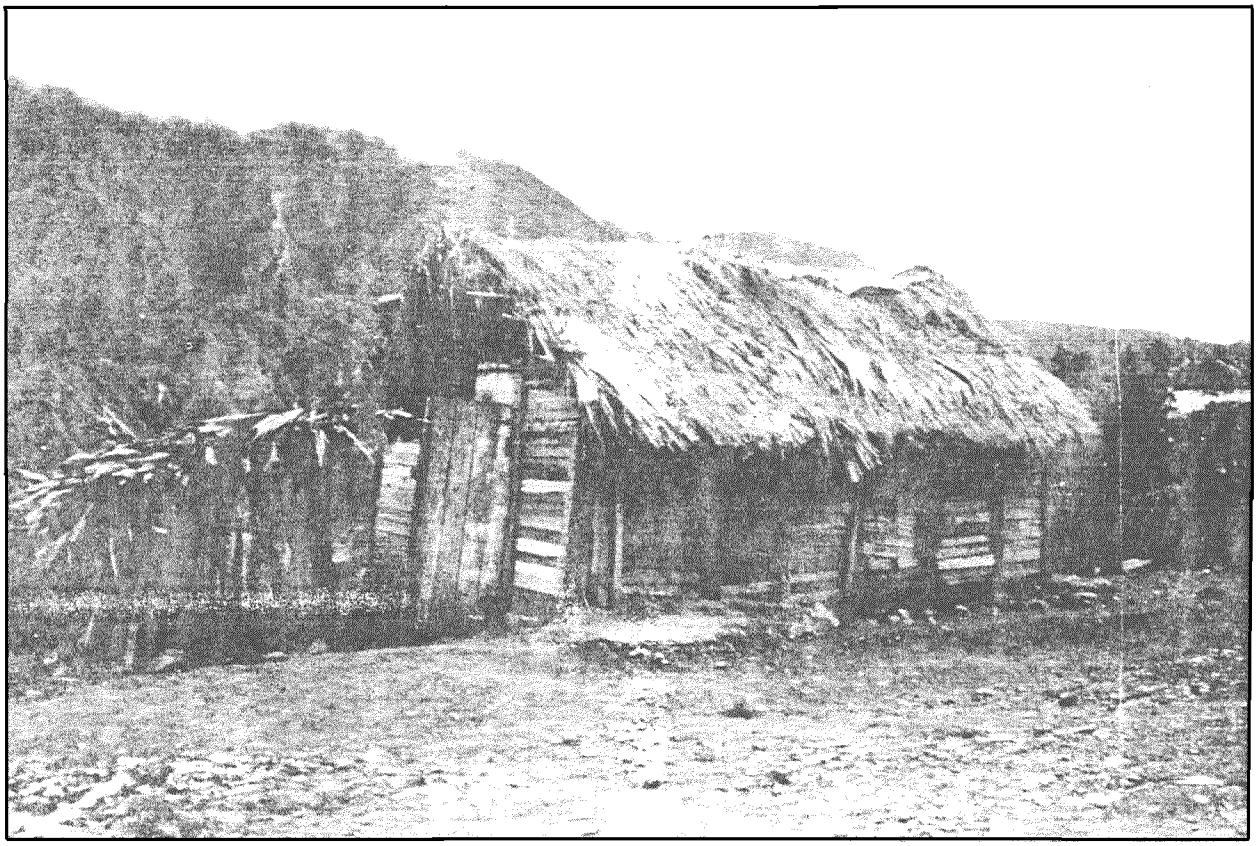
Formal residential construction, utilized for standard single family and apartments, is typified by concrete block walls and reinforced concrete slab or concrete block roofs. Informal residential construction, characteristic of rustic and provisional housing, is sided with either wooden boards or indigenous materials (especially palm and tejamil). Zinc panels or native materials are the most common roofing materials. Bateys are barrack-like structures constructed of wood with zinc or asbestos roofs and floors of "caliche" (a type of stone). A shift in materials used in informal construction is occurring as the depletion of native resources forces increased dependence on concrete. The majority of building materials used for residential construction are produced domestically using a high labor component.

Because three-fourths of Santo Domingo's families are low-income, an additional classification of marginal housing became necessary. 34% of the capital's poor families live in cuarterias and traspatios. Cuarterias are rows of attached units consisting of one or two rooms. Traspatios are small dwelling units constructed in the back of other houses. Block walls and zinc roofs are standard. Both these housing types are generally located near the center of the city. Water is obtained from public faucets or bought from neighbors or water vendors; sanitary waste disposal and trash collection systems are lacking in the majority of cases. Electricity is generally available, although blackouts are common.

## Housing Characteristics: Dominican Republic

| ASPECT \ TYPE OF HOUSING | | "STANDARD" SINGLE FAMILY | | | RUSTIC | | | PROVISIONAL | | | OCCUPIED BUILDINGS CONSTRUCTED FOR OTHER THAN HOUSING PURPOSES | | | BATEY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TOTAL | URBAN | RURAL | TOTAL | URBAN | RURAL | TOTAL | URBAN | RURAL | TOTAL | URBAN | RURAL | TOTAL | URBAN | RURAL |
| NUMBER OF HOUSEHOLDS (000's) | | 493 4 | 278 1 | 215 3 | 406 4 | 106 2 | 300 2 | 7.9 | 5 1 | 2 8 | 2 1 | 1 2 | 0 9 | 7 2 | 0 2 | 7 0 |
| PERCENTAGE OF TOTAL HOUSEHOLDS* (%) | | 51.2 | 28.9 | 22.3 | 42.2 | 11 0 | 31 2 | 0 8 | 0 5 | 0 3 | 0.2 | 0 1 | 0 1 | 0 7 | 0.0 | 0 7 |
| WATER SUPPLY (HOUSEHOLDS OBTAINING WATER FROM TANK WELL RIVER OR OTHER NON-PIPED SOURCE) | | 140.4 | 23.9 | 116.5 | 269 1 | 38.5 | 230.6 | 2.4 | 0.5 | 1.9 | 0.6 | 0.1 | 0.5 | 4.1 | 0.0 | 4.1 |
| | % OF HOUSEHOLDS BY URBAN/RURAL | 100 | 17.0 | 83.0 | 100 | 14.3 | 85 7 | 100 | 20.8 | 79.2 | 100 | 16.7 | 83.3 | 100 | 0 0 | 100.0 |
| | % OF HOUSEHOLDS BY TYPE | 28.5 | 8.6 | 54.1 | 66.2 | 36.3 | 76 8 | 30.4 | 9.8 | 67.9 | 28.6 | 8.3 | 55 5 | 56 9 | 0.0 | 58.6 |
| SANITARY FACILITIES (HOUSEHOLDS NOT HAVING "FORMAL" TOILET FACILITIES AS PART OF DWELLING UNIT) | | 208.7 | 70 0 | 138.7 | 326.9 | 70.8 | 256.1 | 3 9 | 1.8 | 1.8 | 0.9 | 0.2 | 0.7 | 5.6 | 0.0 | 5 6 |
| | % OF HOUSEHOLDS BY URBAN/RURAL | 100 | 33 5 | 66.5 | 100 | 21.5 | 78.4 | 100 | 50.0 | 50 0 | 100 | 22.2 | 77.8 | 100 | 0.0 | 100.0 |
| | % OF HOUSEHOLDS BY TYPE | 42.3 | 25.2 | 64 4 | 80.4 | 7 | 85.3 | 45 5 | 35.3 | 64.3 | 42.9 | 16.7 | 77 8 | 77 8 | 0.0 | 80 3 |
| ELECTRICITY (HOUSEHOLDS NOT SERVED BY ELECTRICITY) | | 171 3 | 29.8 | 141.5 | 337.3 | 54 0 | 283.3 | 4.5 | 1.7 | 2.3 | 0 8 | 0.1 | 0.7 | N.A | | |
| | % OF HOUSEHOLDS BY URBAN/RURAL | 100 | 17.4 | 82.6 | 100 | 16.0 | 84 0 | 100 | 37.8 | 62 2 | 100 | 12.5 | 87 5 | | | |
| | % OF HOUSEHOLDS BY TYPE | 34.7 | 10.7 | 65.7 | 83.0 | 50.8 | 94.4 | 57 0 | 33.3 | 100.0 | 38.1 | 8.3 | 77.8 | | | |
| DWELLING UNIT BUILDING MATERIALS: FLOORS (HOUSEHOLDS WITH EARTH FLOORS) | | 34.5 | 3.6 | 30.9 | 215.2 | 28.6 | 186.5 | 4.1 | 2.0 | 2.1 | 0.2 | 0.0 | 0 2 | 3.4 | 0.0 | 0.4 |
| | % OF HOUSEHOLDS BY URBAN/RURAL | 100 | 10.4 | 89.6 | 100 | 13.3 | 86 7 | 100 | 48.8 | 51.2 | 100 | 0.0 | 100.0 | 100 | 0.0 | 100.0 |
| | % OF HOUSEHOLDS BY TYPE | 7.0 | 1.3 | 14.4 | 53.0 | 26.9 | 62.5 | 51.9 | 39.2 | 75.0 | 9.5 | 0.0 | 22.2 | 5.6 | 0.0 | 5.7 |
| DWELLING UNIT BUILDING MATERIALS: EXTERIOR WALLS (HOUSEHOLDS WITH EXTERIOR WALLS OF PALM TEJAMANIL OR OTHER NON-FORMAL MATERIAL) | | 104 7 | 27.9 | 76.8 | 260.2 | 51.4 | 208.8 | 2.1 | 0 5 | 1.6 | 0.6 | 0.0 | 0.6 | 0.2 | 0.0 | 0.2 |
| | % OF HOUSEHOLDS BY URBAN/RURAL | 100 | 26.6 | 73.4 | 100 | 19.8 | 80 2 | 100 | 23.8 | 76.2 | 100 | 0.0 | 100.0 | 100 | 0.0 | 100 0 |
| | % OF HOUSEHOLDS BY TYPE | 21 2 | 10.0 | 35.7 | 64.0 | 48.4 | 69 6 | 25 6 | 9.8 | 57.1 | 28.6 | 0.0 | 66.7 | 2.8 | 0.0 | 2.9 |
| DWELLING UNIT BUILDING MATERIALS: ROOF (HOUSEHOLDS WITH ROOFS OF CANE, AGUA OR OTHER NON-FORMAL MATERIAL) | | 49 6 | 13.1 | 36.5 | 248 4 | 53.3 | 195.1 | 3.3 | 1 1 | 2.2 | 0.4 | 0 0 | 0.4 | 0.2 | 0.0 | 0.2 |
| | % OF HOUSEHOLDS BY URBAN/RURAL | 100 | 26.4 | 73.8 | 100 | 21.5 | 78.5 | 100 | 33 3 | 66.7 | 100 | 0 0 | 100 0 | 100 | 0 0 | 100.0 |
| | % OF HOUSEHOLDS BY TYPE | 10.1 | 4 7 | 17 0 | 61.1 | 50 2 | 65 0 | 41 8 | 21 5 | 78 6 | 19 0 | 0 0 | 44 4 | 2.8 | 0 0 | 2.9 |

Source: AID Housing Office. Dominican Republic Shelter Sector Assessment. April 1980.



**Typical Rural House in the Dominican Republic. (Photo by Aaron Benjamin, USAID Urban Development Officer, Santo Domingo.)**