HOUSING POLICY IN THE DOMINICAN REPUBLIC: DIAGNOSIS AND GUIDELINES FOR ACTION

Dr. Shlomo Angel
Housing Policy Advisor

Prepared for the Inter–American Development Bank
New York, January 2001

HOUSING POLICY IN THE DOMINICAN REPUBLIC:

DIAGNOSIS AND GUIDELINES FOR ACTION[1]

Dr. Shlomo Angel, Housing Policy Advisor

INTRODUCTION AND SUMMARY

When President Hipólito Mejía took office in August 2000, he made a commitment to create no less than 200,000 housing solutions in the Dominican Republic during the coming four years. This commitment presents the Dominican Government with a worthwhile and important challenge, one that, in fact, could be met adequately and realistically. But it can only be met if housing policy in the Dominican Republic is refocused on the task of enabling all the key actors in the housing sector to create and improve housing for the many. It cannot be met by relying on public housing institutions that build high–cost housing units for the few. To meet this challenge effectively requires a comprehensive understanding of the operations of the housing sector in the Dominican Republic, and a realistic assessment of what can be done and should be done at the present time.

The four objectives of this report are therefore: (a) to examine the economic, social and demographic context of the housing sector; (b) to assess the current conditions in the sector; (c) to evaluate the status of housing policy and the housing programs undertaken by the Government; and (d) to recommend a series of guidelines for action on housing sector reform at the present time, guidelines that could also function as the basis for a dialog between the Government of the Dominican Republic and the Inter–American Development Bank (IDB) in the coming months. The report is based on an initial assessment by the author, relying on the information available to him, and its preliminary conclusions will need to be refined with further study. It is divided into four sections:

1. the economic, social and demographic context of the housing sector;
2. conditions in the housing sector;
3. the status of housing policy; and

[1] This report was prepared for the Inter–American Development Bank (IDB) during October 2000–January 2001. I would like to thank Raul de Moya Español for his contribution to my understanding of the housing situation in the country during my visit, and for his assistance in collecting the information for the Dominican Republic housing sector assessment; Bruce Ferguson, Maria Teresa Souza and Beatriz Lopez for their constructive comments; and Lucila Gitlin for her competent translation of the report into Spanish.

4. guidelines for action.

Section I, reviews *the economic, social and demographic context* of the housing sector. The population of the Dominican Republic is still growing at a rate close to 2.0–2.3% per annum, and new urban household formation is still of the order of 3.5% per annum, requiring a doubling of the urban housing stock every twenty years. Some 56,000 households are now formed every year (of which some 20,000 are in the National District, which includes Santo Domingo). Fortunately, according to official statistics, the growth in the number of dwelling–units has been keeping up with new household formation, and there is no serious *quantitative* housing deficit in the country at the present time. Yet, while official census figures confirm this fact in no uncertain terms, the absence of a housing deficit is hotly disputed by most practitioners in the housing field.

The economy has been growing at a brisk rate—Gross Domestic Product (GDP) per capita grew at an average of 4.3 percent between 1993 and 1999. The median annual household income in the Dominican Republic was RD$97,184 (US$6,352) in 1998. It was RD$122,024 (US$7,975) in the National District, some 26% higher than that that of the country as a whole. Income distribution is highly skewed, limiting the resources that poor households can allocate for housing—the Gini index for the country as a whole was 51.5 in 1998. Government fiscal policy is conservative, deficit spending is generally below 2.5% of GDP, external debt has been reduced to some 27% of GDP, and an increasing share of budgetary resources is directed towards housing and social services. Inflation is relatively low—it reached 5.3% in 2000—an important precondition for the growth of housing finance. The banking sector is stable and growing rapidly, prudential regulation has improved, but lending interest rates remain high—in October 2000, the average commercial banks' lending rate 28.8%. Clearly, while lending rates remain so high, it is highly unlikely that vigorous lending for housing can take place, or that mortgage lending can expand to reach lower–income households. The construction sector is active and developed. Since 1991, according to official statistics, it has been contributing a significant share of the Gross Domestic Product (GDP)—an estimated 13.4%, for example, in 1999. All in all, the economic, social and demographic context of the housing sector in the Dominican Republic is restraining rapid improvements in housing conditions. Along some dimensions, however, the quality of housing is improving for a significant segment of the population.

Section II reviews *the conditions in the housing sector*. Land for urban expansion is generally available and affordable. Low–income households that cannot afford to buy land resort to squatting on public and private lands. Raw land on the urban fringe cost RD$80–160 (US$5–10) per m^2 in 2000. A typical serviced land plot on the fringe of Santo Domingo cost RD$425 (US$26) per m^2. The formal residential construction sector produced approximately 15,000 units per year—12,000 by the private sector and 3,000 by the public sector—approximately a quarter of total housing production. The rest were produced by the semi–formal sector (individual builders on privately–owned lots, usually without permits) or by households on invaded land. Typical construction costs in the formal sector were of the order of RD$2,500–5,000 (US$150–300) per m^2, but not lower. Construction costs in the semi–formal sector were of the order of RD$1,000–2,500 (US$60–150) per m^2. And construction costs in the informal sector were of the order of RD$500–1,000 (US$30–60) per m^2.

The housing credit portfolio in the Dominican Republic is still rather small in comparative terms (13.4% of all credit). 90 percent of all mortgage was issued by the 18 savings and loan associations in the country, that had a total portfolio of RD$23.7 billion (US$1.4 billion) in December of 1999. The number of mortgage loans they issued annually has been growing at the rapid rate of 17% in recent years, from 3,713 in 1993 to 8,608 in 1998, but they had less than 40,000 outstanding loans in 1999. The average loan size was RD$470,434 (US$30,750) in 1998. Typical mortgage rates now range between 24 and 28 percent per annum, severely limiting the number of households that are both willing and able to use mortgage credit. Given these high rates, only 30 percent of the households in the National District and only 18 percent of the households in the country as a whole could afford the payments on a mortgage loan for the cheapest house now being produced by the private sector.

House prices and rents in the Dominican Republic have been very stable, increasing at the same rate as overall inflation in recent years. The median–priced house in Santo Domingo was valued at RD$150,000 (US$9,090) in 2000 and was produced in the informal or semi–formal sector. The lowest–cost formal sector housing units now sell for RD$250,000 (US$15,150). The median house price–to–income ratio in the National District was of the order of 1.1. Houses in the Dominican Republic were, therefore, relatively inexpensive. But they were inexpensive not because land or construction costs were exceptionally low, but because households were under–investing in housing, because they had no access to credit, and because residential infrastructure was inadequate. At the upper end of the housing market, it is estimated that approximately half of the units produced by the formal private sector are now sold for less than RD$500,000 and one half are now for more than that. Monthly housing expenditures in the National District amounted to 24.7% of total expenditures and 21.1% of total incomes in 1998.

The number of occupied dwelling units per 1,000 people in the Dominican Republic increased significantly—from 202 to 233 for the country as a whole, and from 212 to 242 in the National District between 1981 and 1998. Floor area per person and median house size in the metropolitan area of Santo Domingo for 1981 were $14m^2$ and 54 m^2 respectively. A very high percentage of housing units in the National District had concrete and/or wooden walls, hard floors, piped water, and electrical connections. Three–quarters of the units had indoor toilets. Although households are under–investing in housing, the quality of houses in the country is improving. Between 1981 and 1998, for example, the percentage of earth floors decreased from 21 to 7, the percentage of exterior walls made of palm boards decreased from 32 to 16, and the percentage of bamboo or straw roofs decreased from 15 to 5. The rate of owner occupancy in 1998 in the National District was 60 percent. Rates for the country as a whole were higher (75%) because of the low numbers of renters (8%) in the rural areas, and the lower percentage of renters (26%) in other urban centers. The percentage of unauthorized housing in the National District appears to be of the order of 55–65 percent (a very high percentage in comparative terms). And as many as two–thirds of the unauthorized housing in the metropolitan area of Santo Domingo may now be on invaded lands.

Section III outlines *the status of housing policy* in the Dominican Republic. It reviews the history of housing policy since the creation of the National Housing Institute (INVI) and the National Housing Bank (BNV) in 1962 and focuses on housing policy developments since 1996. Housing policy has unfortunately been rather inconsistent, with the fortunes of the National Housing Institute (INVI)—officially charged with the formulation and execution of a national housing plan—rising and falling and rising again in the process.

The Government that came into power in 1996 began to experiment with a new housing policy. During the 1996–1999 period, allocations for housing by the central government increased rapidly, from RD$64 million (US$5 million) in 1996 to RD$1.9 billion (US$120 million) in 1999. By 2000, there were two government agencies with principal responsibilities in the housing sector—the National Housing Institute (INVI) and the National Housing Bank (BNV). The Bank engaged in supervising the savings and loan associations, in insuring mortgages, in issuing its own loans for residential construction, and in development and sale of residential land. The new INVI housing policy of 1996 introduced a number of innovative instruments, but most of its resources were still allocated to the construction of new public housing units.

Six aspects of the housing policy regime in the country are discussed in greater detail: (a) the property rights regime; (b) the housing finance regime; (c) the housing subsidies regime; (d) residential infrastructure; (e) the legal and regulatory regime governing the housing sector; and (f) the institutional framework for government intervention in the sector. Although the informal sector may be responsible for 75% of annual housing production in Dominican cities, and although it is well–understood that the invasion of lands is a principal form of obtaining access to housing, progress in the legalization of squatter settlements has been unsatisfactory. The National Sugar Council (CEA) has now begun selling occupied CEA land to individual families, clearly the most important legalization initiative to–date. Initial steps were also taken to create a national land–titling program.

The regime governing housing finance in the Dominican Republic has changed little since 1962, although conditions now are quite different from those prevailing forty years ago. The National Housing Bank (BNV) is no longer fulfilling its envisioned role, and—were it not for its own real estate investment projects—may no longer be financially viable. The necessary reforms of pension and life insurance funds have been postponed, withholding the long–term institutional deposits that are necessary for the development of a secondary mortgage market and for the sale of bonds secured by mortgages. The mortgage lending portfolios of the savings and loan associations are a comparatively low percentage (43%) of their total active portfolios yet there are no rules or fiscal incentives for them to increase this percentage. Lending–to–deposit interest–rate spreads, especially on savings book deposits are very high (of the order of 18–24 percent), but there are no competitive pressures on lenders to reduce these spreads. Average loan size is also high, and there are presently no low–cost housing solutions, such as serviced sites or progressive housing, that could attract lenders down–market. There is already some experience in the country in micro–finance that can be expanded upon and extended to house improvements and extensions.

Past housing subsidies in the Dominican Republic have been difficult to calculate, yet sizable and largely ill–targeted. Indirect information on housing subsidies can be inferred from the National Housing Institute (INVI)'s housing program for the years 1996–2000, and from the National Housing Bank (BNV)'s proposed (but not approved) housing program for the years 2001–2004. The great bulk of INVI's program budget, 82 percent, was allocated to the construction of new housing units, at an average direct cost of RD$150,000 (US$9,800). Almost no housing solutions were completed in the more–enabling elements of the housing program. The proposed Minimum Housing Program of the National Housing Bank (BNV) is targeted at higher–income households. The Bank is requesting a total of RD$5,145 million (US$312 million) from the government over a four–year period. It proposes to use one–third of the budget to purchase and develop land, and the remaining two–thirds for providing interim construction finance to private developers for building houses and apartments in the RD$270–550,000 (US$16,400–33,300) range. The total budget allocation per unit in the program amounts to RD$107,300 (US$6,500). Most of the program budget will most likely end up as a revolving fund of the National Housing Bank.

The Dominican Republic has generally lagged behind other countries in the region in upgrading residential infrastructure in informal settlements. This is yet again a particular symptom of the general invisibility of the informal sector in housing policies and programs in the country. The country has substantial capabilities in the development and urbanization of lands on the urban periphery, their division into macro–blocks, and their sale to private–sector housing developers and residential construction companies. This is an important element of any enabling housing policy, and there is no question that, along this dimension, the Dominican Republic is ahead of many other countries. The capabilities are there, but, as of now, most such lands are not targeted to low– and middle–income families.

Finally, the institutional responsibility for establishing and executing the Government's housing policy in the Dominican Republic, and for ensuring that housing policy is coordinated with economic policy, social policy and urban development policy is not clear. Legally, the National Housing Institute (INVI) is charged with this responsibility, but in practice, the National Housing Bank (BNV) and various agencies empowered by the Office of the President to undertake housing initiatives have compromised the ability of the Institute to coordinate and administer housing policy. The National Housing Bank (BNV) and the savings and loan associations focus on housing finance—a critical component of an enabling housing policy. But they have expressed little interest to–date in an overall housing policy that takes the informal sector into account, or in moving further down–market to finance lower–cost housing solutions such as sites–and–services and house extensions or improvements using micro–credit.

Section IV outlines a set of *guidelines for action on housing.* Housing policy in the Dominican Republic is presently at a crossroads. The new government of President Hipólito Mejía is eager to embark on a massive housing program, a program that will yield 200,000 housing solutions during the next four years. It has become abundantly clear, however, that the formal sector, which typically supplied less than one–quarter of new housing production in any given year cannot be and should not be relied upon to produce the required 60,000–70,000 units a year. An effective housing policy must of necessity shift its attention to the informal housing sector and to progressive housing solutions. Unfortunately, this shift is not so simple. The neglect of the informal housing sector by most previous administrations has resulted in a lamentable lack of knowledge about the sector, in a reluctance to accept "bad" housing as housing that can and should be improved, and in the dearth of experience with partial and progressive housing solutions. But it is a timely challenge that can no longer be avoided.

Housing policy reform in the Dominican Republic must move decisively towards a more enabling and more facilitating mode. The enabling approach to housing policy is founded on the recognition that the direct provision of housing by public agencies is inefficient, inequitable, unsustainable and at best marginal, and calls for the gradual withdrawal of the public sector from the direct provision of housing. It relies on intermediaries in the financing, production, and exchange of housing. Government agencies with housing responsibilities must therefore relinquish their myopic concern with their own housing production, or with a particular segment of the housing market, and refocus their attention on the housing sector as a whole. Housing policy reform in the Dominican Republic now needs to focus on six lines of action: (a) action on property rights; (b) action on housing finance; (c) action on housing subsidies; (d) action on residential infrastructure; (e) action on legal and regulatory reform; and (f) action on institutional reform.

Action on property rights must focus on accelerated property registration; on an accurate inventory of invaded lands; on implementing the national land regularization program; on setting a policy on the pricing and sale of occupied lands; and on formulating a policy and a realistic budget for resettling communities that cannot be legalized. Action on housing finance must focus on reforming the legal framework governing housing finance institutions with a view of increasing competition among them, and reducing prevailing lending rates for households in all income groups; on the support of lending at market rates by up–front subsidy vouchers; on new arrangements for the hire–purchase of housing ("leasing habitacional"); and on new mechanisms for reducing the average loan size and for issuing micro–credit.

Action on housing subsidies must focus on demand–side subsidies that are allocated directly to deserving beneficiaries; on targeting housing subsidies only to households in the lower three quintiles of the income distribution (households earning less than 3.5 urban minimum salaries); on small, transparent subsidies, administered through intermediaries, capable of generating multiplier effects, and focused largely on progressive housing solutions rather than on completed new housing units. A universal housing subsidy voucher could be used to assist low–income households in one of several progressive housing solutions as well as in purchasing low–cost houses produced by the private sector. It could be used to (a) purchase a serviced site, (b) upgrade infrastructure in existing communities, (c) improve and extend an existing house, (d) buy a kit for building a core house in a rural district, or (e) supplement a down payment and a mortgage loan for a low–cost house produced by the private sector.

Action on residential infrastructure should focus on urban infrastructure upgrading, on preparing for urban growth, and on the preparation of serviced sites. First, concrete steps must now be taken toward the gradual implementation of a national program of urban infrastructure upgrading. Such a program will enhance the utility and the economic value of existing houses, as well as increase housing investment by individual households. Second, preparations must be made for an urban growth ring surrounding each city, equal in area to the present area of the city. These preparations must include strategic physical plans, plans for the acquisition of lands required for public facilities, and medium– and long–term budgetary plans for infrastructure investments. Third, the experience gained in the Dominican Republic in the urbanization of large areas of land, their division into large macro–blocks, and their subsequent sale to private developers could be very useful in preparing new settlement areas as part of a broader program to create serviced sites for progressive housing, core housing or minimally–priced completed houses.

Action on the legal and regulatory regime governing the housing sector must include a systematic study of the effect of laws and regulations on housing sector performance in the country. Specifically, the effects of rent–control legislation on the one hand, and land subdivision regulations and building codes on the other, need to be examined in greater detail. Action on institutional reform should focus on the creation of a unified leadership of the housing sector and on ensuring that the leadership is committed to housing policy reform. The National Housing Institute (INVI), the institution officially chosen to lead the housing should create a broader platform for managing the housing sector as a whole. Given that broader platform, each stakeholder should seek to shoulder specific responsibilities for implementing different elements of the housing program. A broad–based National Housing Council (NHC) could provide such a platform, and it could be effectively empowered by a Housing Intelligence Unit (HIU), which will provide it with the information necessary for the conduct of national housing policy.

To conclude, the preliminary diagnosis of the conditions prevailing in the housing sector in the Dominican Republic and the examination of the status of housing policy in the country suggest that an important window of opportunity for housing policy reform has now opened. Housing policy reform in the Dominican Republic is now necessary for increasing the scale, the outreach, and the effectiveness of public action on housing—a key goal of the new Government, and a goal that merits a strong political backing and an adequate budgetary allocation. It is also clearly in line with the housing policy outlook of the Inter–American Development Bank and other multilateral organizations, and its formulation and implementation could, and indeed should, benefit from their technical and financial support.

I THE ECONOMIC, SOCIAL AND DEMOGRAPHIC CONTEXT

Conditions in the housing sector in the Dominican Republic are largely the reflection of economic, demographic, social, cultural, political, and environmental factors that are external to the housing sector. Seven of these factors have particularly strong effects on the sector, and will be discussed in this section in greater detail:

1. population growth, urbanization, and household formation;
2. economic growth and the level of economic development;
3. the distribution of income;
4. government fiscal policy;
5. inflation and conditions in the financial sector;
6. conditions in the construction sector; and
7. environmental hazards.

Table 1 below presents basic economic, social and demographic indicators that summarize these contextual factors in the Dominican Republic. It also compares them to other countries in the region, to conditions in Latin American and the Caribbean as a whole, to other lower–middle income countries with per capita Gross National Product (GNP) similar to that of the Dominican Republic, and to conditions in the world at large.

1. Population growth, urbanization, and household formation: The demand for new housing in the Dominican Republic is, first and foremost, a function of population growth. Secondly, it is a function of urban population growth, which is more rapid than population growth. And thirdly, it is a function of the rate of household formation, which, in the Dominican Republic, is occurring at a faster rate than population growth in general, and urban population growth in particular, because its households are rapidly becoming smaller—between 1981 and 1998, household size in the country declined from

Table 1: Basic Economic, Social and DEmographic Indicators, 1990–2000

Indicator	Dominican Republic	Panama	Trinidad & Tobago	Guatemala	Ecuador	Venezuela	Latin America & the Caribbean	Lower-Middle Income Countries	The World
Country Population (millions), 1997	8.1	2.8[4]	1.3	11.1	12.0	23.0	494	2,283	5,820
Annual Population Growth Rate, 1997-2015 (%)	1.7	1.3	0.9	2.7	1.5	1.5	1.3	0.9	1.1
Urban Population (%), 1997	66.2	56.4	71.2	39.7	60	86	74	42	46
Labor Force in Agriculture, 1990 (%)	18.2[5]	21	9[1]	52	33	12	25	58	49
Household Size, 1990	4.25[5]	4.2	4.1	4.8[1]	4.7	4.4	4.3	4.6	4.1
Annual Urban Population Growth (%), 1990-2010	2.80	2.48	1.13	3.8	3.13	2.11	2.15	-	2.55
Country GNP ($ billions), 1997	13.5	8.4	5.5	18.8	18.4	78.7	1,196.8	2,817.9	29,925
GNP per Capita ($), 1997	1,862	3,080	4,230	1,691	1,570	3,450	3,940	1,230	5,180
Annual GDP per Capita Growth (%), 1990-98	4.7[6]	2.9	1.6	1.5	1.0	5.3	1.8	-	-
Income Distribution Gini Index (1985-95)	51.5[7]	57.0	50.0[2]	59.6	46.6	46.8	51.6	-	39.1
Annual Inflation (%), 1990-97	6.9[6]	1.4	6.7	17.0	37.7	52.0	106.2	-	14.4
Under-5 Mortality Rate per '000, 1996	47	25	15	55	40	28	41	44	73
Female Life Expectancy (years), 1996	73	76	75	69	73	76	73	71	69
Female Adult Illiteracy (%), 1995	18	10	3	51	12	10	15	27	38
Access to Safe Water (%), 1995	71	83	82	68	70	79	73	-	78
Access to Sanitation in Urban Areas (%), 1995	76	87	97	78	60	74	80	75	-
Government Revenues as % of GDP, 1996	14.2	27.9	27.7	11.0	15.7	19.7	21.6	24.1	26.6
Government Budget Deficit as % of GDP, 1996	0.5	-3.0	–3.1[3]	–2.8	0.0	1.4	-3.3	-3.4	-3.1
Debt as percent of GDP (%), 1997	23.3	88.1	36.9	22.4	75.0	39.9	33.6	-	-
Gross Domestic Investment as % of GDP, 1997	22.0	31.1	21.0[3]	17.0	20.2	18.8	24.4	27	22
Value Added by Construction as % of GDP, 1997	10.9	3.8	10.8	2.5	3.2	5.2	5.3	-	-
Gross Domestic Savings as % of GDP, 1997	15.0	24.1	29.0	9.4	19.2	30	20	27	22
Banking Sector Credit as % of GDP, 1997	34.1	92.1	59.2	15.8	29.0	19.9	35.7	65.6	139.1
Institutional Investor Credit Rating, 1998	31.9[4]	42.7[4]	47.2[4]	27.0	26.7	34.4	33.5	33.6	35.8
Corruption Perceptions Index (lowest=99), 1999	-	-	-	68	82	75	61	-	49

Sources: The World Bank, *World Development Report – 1998/9*; IMF, "Dominican Republic: Selected Issues," 1999; Inter-American Development Bank, IDB Statistics and Quantitative Analysis Unit, www.iadb.org; Transparency International, *The Corruption Perceptions Index-1999*; Laurencio Guardia Conte, "Panama Housing Sector Assessment Report," Draft, 2000; Banco Central de la República Dominicana, *Encuesta Nacional de Gastos y Ingresos de los Hogares, 1999*. [1] Data for 1995. [2] Data for 1997 (See Annex) [3] Data for 1999. [4] Data for 2000. [5] Data for 1998. [6] Data for 1992–1999. [7] Data for 1998.

5.0 to 4.25. It also declined from 4.7 to 4.1 in the National District during that period. Population, Household, and Dwelling Unit Growth in the Dominican Republic and in the National District that includes Santo Domingo, for the years 1981–1998, are summarized in table 2.

The population of the Dominican Republic amounted to a total of 8.16 million in the year 1998. It grew at an annual rate of 2.3% between 1981 and 1993, and at the same rate between 1993 and 1998 [ONE, 1989 and 1998; Banco Central, 1999b]. This growth rate was projected to slow down in the coming two decades to 1.4% per annum [World Bank, 1999, table 2.1, 42]. It likely to remain in the vicinity of 1.8±0.2% during the coming decade, increasing the population of the Republic by some 150–175,000 new people every year. The projected population growth rate for Latin America and the Caribbean as a whole is only 1.3% per annum for the coming two decades. In comparative terms, therefore, the population growth rate in the Dominican Republic is still relatively high, partly as the result of in–migration from neighboring Haiti.

Table 2: Population, Household, and Dwelling Unit Growth in the Dominican Republic and in the National District, 1981–1998[1]

Zone	1981	1993	1998	Annual Growth 1981-93 Number	Annual Growth 1981-93 Percent	Annual Growth 1993-98 Number	Annual Growth 1993-98 Percent
Country total							
Population	5,527,273	7,293,390	8,155,294	147,176	2.3	172,381	2.3
Households	1,122,810	1,639,169*	1,919,064	43,030	3.2	55,979	3.2
Dwelling units	1,259,625	1,723,811*	2,014,313*	38,682	2.6	58,100	3.2
Occupied units	1,114,008	1,629,616	1,904,244	42,967	3.2	54,926	3.2
National District							
Population	1,524,491	2,193,046	2,510,711	55,713	3.1	63,533	2.7
Households	326,024	518,971*	617,160	16.079	4.0	19,638	3.5
Dwelling units	350,092	532,318*	631,202*	15,185	3.6	19,777	3.5
Occupied units	323,302	512,701	607,941	15,783	3.9	19,048	3.5

Source: Oficina Nacional de Estadística, *Censos Nacionales de Población y Vivienda*, 1981 and 1993; Banco Central, 1999. *Encuesta Nacional de Gastos e Ingresos de los Hogares*. * Estimates.

The urban population in the country is growing at a more rapid rate than the population as a whole. Between 1980 and 1990 it grew by 4.2% per annum, and between 1990 and 1999 by 3.1% per annum. In 1980, only 50.5% of the population lived in urban areas. This percentage increased to 60.9% by 1990, and by 1999 68.1% of the population lived in urban areas. In terms of its level of urbanization, the Dominican Republic is now the 12th among 26 countries in the Latin American and Caribbean region [IDB, 2000]. Its economy is also becoming more urban than rural. The percentage of its labor force in agriculture declined from 40.6% in 1984 to 18.2% in 1998 [Banco Central, 1999, 44], and the contribution of agriculture to the Gross Domestic Product (GDP) averaged 12.6% between 1993 and 1998 [IMF, 1999,102]. At the projected growth rate of 3.0% per annum, Dominican cities will roughly double their populations, their housing stocks, and their built–up areas in twenty years. That means that, in general, every city will have to prepare an urban growth ring of an equivalent size to its present area. The built–up area of Santo Domingo, for example, is now approximately 280 km^2. It must prepare for its expansion into an urban growth ring, with a width varying between 4 and 10 kms., in the next twenty years, and to urbanize an average of 14 km^2 (1,400 hectares) per annum. Other cities must make similar preparations.

Because every new household seeks to occupy a separate dwelling unit, housing needs are a function of new household formation, and not only of population growth. The number of households in the Dominican Republic as a whole grew at 3.2% per annum between 1981 and 1998, while the population only grew at 2.3%, as the average household size declined rapidly from 5.0 to 4.25 during this period. In the National District, new household formation exceeded population growth by some 0.8–0.9% per annum, and now amounts to some 3.5% per annum. As table 2 shows, some 56,000 households are now formed every year (of which some 20,000 are in the National District, which includes Santo Domingo). These numbers should give us an indication as to whether Government housing programs are operating at an adequate scale, or only reaching the select few while ignoring the majority.

It is important to note that additions to the housing stock, as well as the number of *occupied* dwelling units, have kept up with the rate of new household formation throughout this period. As a result, in 1998, for example, there were 5.0% more dwelling units than households in the country as a whole and 2.3% more dwelling units than households in the National District. At most 1.5% of households in the country as a whole and 3.7% of households in the National District shared an occupied dwelling unit. In overall terms, therefore, there was no real *quantitative* housing deficit to be found in the Dominican Republic. Yet, while official census figures confirm this fact in no uncertain terms, the absence of a housing deficit is hotly disputed by most practitioners in the housing field. We shall discuss this matter in greater detail in the next section, which deals with conditions in the housing sector.

2. *Economic Growth and the level of economic development:* During the 1980s, like many other countries in Latin America, the economic performance of the Dominican Republic was dismal: “In those years, the combination of severe monetary and fiscal imbalances, pervasive price controls, financial sector rigidities, multiple currency practices, and an extremely restrictive trade regime resulted in acute economic distortions and an inability to manage adverse shocks to the economy. External deficits soared, the peso was sharply devalued several times, and the government incurred external arrears. Moreover, economic activity stagnated” [IMF, 1999, 8].

A radical turnaround of the Dominican economy was accomplished through a series of stabilization and structural adjustment reforms during 1990–1992. Public finances were strengthened through tax reforms and a tighter fiscal discipline. Monetary control was improved. Lending and deposit interest rates were liberalized. Banking supervision and prudential regulations were reformed. Exchange rate and trade restrictions were removed and tariffs were reduced. The responses to these measures were positive and economic growth resumed [11–13]. "Since 1992, the Dominican Republic has experienced an extended period of economic growth, declining unemployment rates, modest consumer price inflation, and a generally manageable external position. Indeed, during 1996–1998, the Dominican Republic ranked among the world's fastest growing economies" [8].

Real GDP growth between 1993 and 1999 amounted to 5.8 percent [IMF, 1999, 5 and Banco Central, 2000, Annex 1], and is expected to reach 8.4% in 2000 despite the negative effect of world oil prices [Banco Central, 2000, 3]. GDP per capita grew at an annual average of 4.3 percent between 1993 and 1999 [IDB, 2000]. Gross National Product (GNP) per capita in 1997 was $1,862. Given its GNP per capita, the country's economy falls between the low-middle income countries (GNP per capita of $1,230 in 1997) and upper–middle income countries (GNP per capita of $4,540 in 1997). Unemployment has been steadily declining, from 19.4% in 1993 [IDB, 2000] to 13.9% in 2000 [Banco Central, 2000,36]. The steady growth of the economy, coupled with its high rates of household formation, should be expected to increase the demand for housing, the households' ability to pay for housing, and the availability of fiscal resources to subsidize housing.

The distribution of income: The country as a whole has a highly skewed income distribution, with a Gini Index of 51.5 in 1998 that is identical to the median index for Latin America and the Caribbean as a whole (51.6). Housing quality in the Dominican Republic, particularly at the lower end of the spectrum, is expected to be largely a reflection of poverty. The household income distribution data for the country as a whole for 1998 is given in table 3.[2]

Table 3: Annual Household Income Distribution in the Dominican Republic, 1998

	(Dominican Pesos)		(US Dollars)	
Decile	From	To	From	To
1st	0	41,518	0	2,714
2nd	41,518	56,337	2,714	3,682
3rd	56,337	71,157	3,682	4,651
4th	71,157	84,170	4,651	5,501
5th	84,170	97,184	5,501	6,352
6th	97,184	117,874	6,352	7,704
7th	117,874	138,565	7,704	9,057
8th	138,565	159,256	9,057	10,409
9th	159,256	309,808	10,409	20,249
10th	309,808+		20,249+	

Source: Calculated from Banco Central, 1999. *Encuesta Nacional de Gastos e Ingresos de los Hogares.* RD$15.30 = US$1.00 in 1998.

As can be seen from the table, the median annual household income in the Dominican Republic in 1998 was RD$97,184 (US$6,352). The Gini Coefficient for this income distribution was calculated from the data to be 0.515. The total income earned by 40% of the lowest–income earning households amounted to 17% of total income, and the ratio of the total income earned by the highest–income 20% of households to the total income earned by the lowest–income 20% of households was found to be 7.5.

The household income distribution data for National District is given in table 4. The district contains the metropolitan area of Santo Domingo, but a substantial rural population as well. In the 1993 Census, the total population of the National District amounted to 2,193,046 persons, 73.4% of which lived in urban areas and 26.6% lived in rural areas. As can be seen from the table, the median annual household income in the National District in 1998 was RD$122,024 (US$7,975), some 26% higher than that of the country as a whole. The Gini Coefficient for this income distribution was calculated from the data to be 0.38, considerably lower than that of the country as a whole in 1998. This value may be an under–estimate because of the absence of more detailed income information on the higher–income households in the District that fall into the fifth income quintile. The total income earned by 40% of the lowest–income earning households amounted to 17%

Table 4: Annual Household Income Distribution in the National District, 1998

	(Dominican Pesos)		(US Dollars)	
Decile	From	To	From	To
1st	0	51,008	0	3,334
2nd	51,008	72,154	3,334	4,716
3rd	72,154	86,402	4,716	5,647
4th	86,402	102,042	5,647	6,669
5th	102,042	122,014	6,669	7,975
6th	122,014	141,986	7,975	9,280
7th	141,986	171,115	9,280	11,184
8th	171,115	267,427	11,184	17,479
9th	267,427	363,740	17,479	23,774
10th	363,740+		23,774+	

Source: Calculated from Banco Central, 1999. *Encuesta Nacional de Gastos e Ingresos de los Hogares*. RD$15.30 = US$1.00 in 1998.

of total income in the District, and the ratio of the total income earned by the highest–income 20% of households to the total income earned by the lowest–income 20% of households was found to be 7.1. Combining this income distribution data with house price data and mortgage loan information allows us to estimate levels of housing affrordability in the Dominican Republic, as well as the levels of down–market penetration of the formal residential construction sector. These will be discussed in greater detail as important aspects of housing sector performance in section II of this paper.

4. *Government fiscal policy:* Following the fiscal reforms of the early 1990s, central government revenues increased steadily from 12.5% of GDP in 1990, to 14.2% in 1996

and to 15.9% in 2000. This still places the Dominican Republic below the median value in the Latin American and Caribbean region, which was 21.6% in 1996. Fiscal deficits have been largely contained in recent years, and "[d]uring the 1993–1998 period, the deficit generally remained less than 2½ percent of GDP [IMF, 1999, 42]. Government fiscal policy has successfully focused on the reduction of external debt, which declined from 55.4% of GDP in 1991 to 27.3% in 1998 [IDB, 2000]. The Government is a major employer, now providing employment for some 330,000 persons [Banco Central, 1999, Informe, 26–27], approximately 10% of the total employed labor force.[3] A large share of public expenditures is therefore expended on current accounts, rather than on capital investments. Still, the share of capital investment was 26.7% of central government expenditures in the first half of 2000 [Banco Central, 2000, 50].

The budgetary process in the Dominican Republic leaves considerable discretionary powers in the hands of the President, out of reach of congressional oversight. Discretionary spending by the Office of the President still accounted for some 20% of total expenditures in 1999 [IMF, 1999, 47]. The Government's budget for housing is allocated to the National Housing Institute (INVI) through the Office of the President, and through the allocation of public lands—mostly lands belonging to the State Sugar Council (CEA)—to the National Housing Institute (INVI) and to National Housing Bank (BNV). There are substantial public resources that can be—and, in fact, are—made available for supporting the housing sector, in a variety of housing subsidies which will be discussed in greater detail in Section III.

5. Inflation and conditions in the financial sector: Following the fiscal reforms of the early 1990s, inflation, which was of the order of 50% per annum in 1990 and 1991, has been contained to single digits (except for 1994, an election year). The average increase in the consumer price index was 6.3% between 1996 and 1999 [Banco Central, 1999a, 101], and 5.3% in 2000 [Banco Central, 1999a, 1]. The housing price index generally followed the consumer price index: The average increase in both the housing price index and the consumer price index was 6.3% between 1995 and 1999 [Banco Central, 1999a, 101–102]. The exchange rate, vis-à-vis the U.S. dollar, has been very stable as well. It increased from RD$12.70 to the dollar in 1991 to RD$16.50 in 2000, an average rate of increase of 3% per annum.

The low level of inflation should, and indeed often does, make it possible to develop active mortgage markets and to bring mortgages down market. In the Dominican Republic this is unfortunately restricted by the near absence of long–term institutional deposits; by the high deposit interest rates on certificates of deposit that are partially necessary to encourage savings (now only 15% of GDP) and prevent capital from fleeing the country; and by the relatively high spreads between deposit and lending rates. The weighted average deposit interest rate for certificates of deposit (CDs) in commercial banks was 18.8% in October 2000. The rate for saving–book deposits was 4.25%. The average commercial banks' lending rate was 28.8% [Banco Central, 2000b]. Clearly, while lending rates remain so high, it is highly unlikely that vigorous lending for housing can take place, or that mortgage lending can expand to reach lower–income households.

The banking sector in the Dominican Republic was considerably strengthened by the reforms of the early 1990s. The country's credit rating has increased recently to 31.9, but it is still lower than the regional average of 33.5. The Dominican Republic now ranks 11th in the region and 77th in the world in its credit rating [Institutional Investor, 2000]. Total banking sector credit was 34.1% of GDP in 1997, approximately the same as the median value of 35.7% for Latin America and the Caribbean as a whole. It has been growing rapidly in nominal terms, at an average rate of 20.7%, for example, between 1994 and 1998. The growth and strengthening of the banking sector in the Dominican Republic is an important precondition for the development of a vibrant housing finance sector in the years to come.

6. *Conditions in the construction sector:* According to official statistics, the construction sector contributed 13.4% of the Gross Domestic Product (GDP) of the Dominican Republic in 1999 [DASA, 2000], and an average of 12.5% between 1990 and 1998 [IDB, 2000]. The Gross Domestic Product (GDP) in 1999 current values was RD$278,363 million (US$18 billion). The volume of the construction sector in 1999 must, therefore, have been of the order of RD$37,300 million (US$2.33 billion). This is a much higher number than that reported in construction sector documents. If the 13.4% share of construction in GDP is right, and if residential construction contributed some 50% of that, then some RD$18,700 million (US$1.17 billion) was spent on residential construction in 1999. At an average of RD$350,000 (US$22,000) per unit, some 53,000 new units could have been built in 1999. That is impossible. The latest construction sector report [ONE, 2000, table 324–1] estimates that *private sector* construction totaled only RD$4,318 million in 1999. *Public sector* construction expenditures totaled RD$5,796 million in 1999 [DASA, 2000]. The total volume of construction, RD$10,114 (US$634 million), thus amounted to only 3.6% of GDP, one quarter of the 13.4% reported in the GDP national accounts, but more in line with values in other countries in the region. Where is the discrepancy? What is the real volume of construction as a share of GDP? This is a question that requires further study.

7. *Environmental Hazards:* The country is situated in the path of severe tropical storms. In September of 1998, for example, "Hurricane Georges cut a wide swath across the Dominican Republic causing widespread damage estimated at $2 billion. The agricultural sector was severely impacted, as were basic infrastructure (roads, bridges, water and electrical systems) and housing. An estimated 48,000 homes were destroyed and another 123,000 homes were in need of major repairs and/or rehabilitation" [CHF, 1999, 4]. Traditional construction methods in the country—for example, the use of zinc roofs without adequate anchoring to the walls—are ill suited to withstand hurricanes. In addition, several neighborhoods (along the Ozama river in Santo Domingo, for example) are located in lowlands subject to severe flooding, or on steep slopes in danger of mudslides. A realistic estimate of the number of houses in the country at severe risk is not available, and an affordable disaster–mitigation strategy, one that can gradually relocate and re–house these communities does not appear to be in place. From the perspective of housing policy, these environmental conditions require an adequate level of disaster preparedness, an on–going program of retrofitting houses to withstand

tropical storms, and an adequately–financed and politically–acceptable resettlement program for families living in houses that—for reasons of public health and safety—cannot or should not be improved.

All in all, the economic, social and demographic context of the housing sector in the Dominican Republic is restraining rapid improvements in housing conditions. Along some dimensions, however, the quality of housing is improving for a significant segment of the population. The next section discusses conditions in the housing sector in the country in general—and in the National District in particular—in greater detail.

II CONDITIONS IN THE HOUSING SECTOR

The reorientation of housing policy in the Dominican Republic towards a more enabling and more facilitating mode requires, first and foremost, a clearer understanding of the actual conditions prevailing in the housing sector at the present time. The enabling approach to housing policy is founded on the recognition that the direct provision of housing by public agencies is inefficient, inequitable, unsustainable and marginal, and calls for the gradual withdrawal of the public sector from the direct provision of housing. It relies on all the actors in the housing sector to act as intermediaries in the financing, production, and exchange of housing. Government agencies with housing responsibilities must therefore relinquish their myopic concern with their own housing production, or with a particular segment of the housing market, and refocus their attention on the housing sector as a whole.

This section attempts to provide a summary perspective of the Dominican housing sector, with a special focus on housing conditions in the National District, where some 30 percent of the total population and 40 percent of the urban population now resides. The focus on the metropolitan area of Santo Domingo is necessary because this is where housing problems are most acute, and where issues of residential land tenure and possible overcrowding are of a different order. This is not to suggest, by any means, that the housing problems of rural areas and intermediate towns need not be addressed. Surely, they need to be and will be dealt with to the extent possible in this preliminary review.

In addition to the contextual factors discussed in the previous section, there are three main factors, internal to the housing sector, that affect the supply and demand for housing in the Dominican Republic and elsewhere:

1. the availability of land;
2. conditions in the residential construction sector; and
3. the availability of mortgage finance.

In addition, housing sector performance in the Dominican Republic can be summarized by focusing on four of its key dimensions:

4. house prices, rents and affordability;

5. dwelling units and living space;
6. housing quality; and
7. tenure.

These aspects of the housing sector in the Dominican Republic in general, and in Santo Domingo in particular, are described in greater detail below. Table 5 presents basic housing indicators that summarize them and compare them to other capital cities in the region, to conditions in Latin American and Caribbean cities as a whole, to cities in other lower–middle income countries with per capita Gross National Product (GNP) similar to that of the Dominican Republic, and to conditions in cities in the world at large.

1. The availability of land: In general, topographic conditions in the Dominican Republic are highly suitable for the development of housing, and there is no physical shortage of land for housing neither in the metropolitan area of Santo Domingo, nor in secondary cities, nor in rural areas. Population density in the country as a whole was 165 persons per km^2 in 1997, the sixth highest density in the Latin American and Caribbean region (after Puerto Rico, Trinidad and Tobago, Jamaica, El Salvador, and Haiti) [World Bank, 1999a, table 1.1, 12]. But the population density in the National District, 1,565 persons per km^2 in 1993, was only one–sixth of the density of the built–up area of Santo Domingo.[4] This clearly leaves sufficient land for urban expansion in the coming decades.

At the projected growth rate of 3.0% per annum, Dominican cities will roughly double their populations, their housing stocks, and their built–up areas in the next twenty years. That means that, in general, every city will have to prepare an urban growth ring of an equivalent size to its present area. The built–up area of Santo Domingo, for example, is now approximately 280 km^2. It must prepare for its expansion into an urban growth ring, with a width varying between 4 and 10 kms., in the next twenty years, and to urbanize an average of 14 km^2 (1,400 hectares) per annum. Other cities must make similar preparations.

In making such preparations, it should be noted that the State Sugar Council (CEA) owns some 1,762 km^2 of land [Fortuna, 2000, 9], of which a significant portion in within the urban growth rings of many cities. Although data on the precise location of these lands does not yet exist, it is estimated that more than half of the land in the urban growth ring of Santo Domingo, for example, is owned by CEA. CEA, which operates at

Table 5: Selected Housing Indicators, 1990–1998[5]

Indicator	Santo Domingo, Dominican Republic	Panama City, Panama	Port of Spain, Trinidad	Guatemala City, Guatemala	Quito, Ecuador	Caracas, Venezuela	Latin America & Caribbean Cities,1990	Lower–Middle Income Countries	The World 1990
Dwelling Units per 1,000 People	242	250	248	214	239	236	221	195	229
Median House Size (m^2)	54[6]	67	70.3	38	33.6	78	67	47	62
Floor Area per Person (m^2)	14[8]	16	18.1	8	8.6	16	15.6	9.4	15.3
Urban Density (persons per km^2)	9,500	365(5,835)[7]	-	6,400	9,200	6,000	5,700	6,300	6,600
Land Registration (%)	60	80	-	50	55	35	70	78	100
Permanent Structures (%)	89	90	91.3	87	71.3	89	90	94	97
Water Connection (%)	96.5[8]	90	78	88	94.1	90	91	87	95
Journey to Work (minutes)	30	60	70	45	56	49	56	40	37
Infrastructure Expenditure–to–income Ratio	2.3[9]	7.2	-	8.9	9.1	-	4.1	7.9	5.9
Public Housing (%)	0	0	4.6	0	0	38	10	12	12
Unauthorized Housing (%)	60	15	65	44	30.0	-	26.4	27.1	15
Squatter Housing (%)	40	12.2	8.5	29	7.5	40	25	16	4
Homelessness per 1,000 people	<1	<1	-	3.9	0.6	5.0	2.1	0.2	0.9
Owner Occupancy (%)	60	77	67	61	79	67.6	65	59	55
The Median House Price ($)	9,100	27,000	20,000	7,742	6,767	29,000	11,818	16,205	20,315
The House Price-to-Income Ratio	1.1	1.4	6.3 (2.7)[10]	1.6	2.4	5.7	2.4	4.5	5.0
The Rent-to-Income Ratio (%)	21.1	25.0	25.0(11.4)[12]	22.0	12.5	15.0	19.8	16.2	16.2
Down-Market Penetration	2.0	0.8	-	1.2	2.1	6.7	3.9	3.6	3.4
Construction Cost per Square Meter ($)	156	140	180	155	171	225	171	156	171
The Housing Credit Portfolio (%)	13.4	22.8	-	7[1]	20.1	<10	20	8	14
The Mortgage-to-Prime Difference (%)	-2.0	2.0	-5.0	3.0	–20	14	3.2	0.5	0.2
The Mortgage Arrears Rate (%)	2.4[11]	<1	-	5	3	5.8	6	10	5
New Household Formation (%)	3.5	2.55	1.13	3.0	4.2	1.56	3.1	3.9	3.1
Housing Production per 1,000 people	7.9	9.4	4.6	6.2	9.3	5.8	6.0	7.7	6.5
Residential Mobility (%)	-	-	-	1.5	3.4	5.6	3.4	5.0	7.1
The Vacancy Rate (%)	7.7[12]	11.4	5.3	-	1.6	8.3	4.2	2.8	3.5

a financial loss and has accumulated serious debts—of the order of RD$3.5 billion (US$210 million) [Ruiz, 2000, 6D]—is permitted by law to sell land to private companies as well as to squatters who occupy its land illegally (see Section III below), to offset its debt. It can also arrange for land swaps in exchange for budgetary transfers from the central government. In 1997, for example, it transferred 3.03 million m^2 of raw land, valued at RD$287.6 million (US$20 million), or RD$95 (US$7) per m^2, to the National Housing Bank (BNV), a transfer underwritten by the government.[13]

Residential land in the metropolitan area of Santo Domingo is generally plentiful and affordable. Low–income households that cannot afford to buy land resort to squatting on public and private lands. It is estimated that, in the country as a whole, more than 625 square kilometers of land belonging to the State Sugar council (CEA), for example—more than double the built–up area of Santo Domingo—are occupied illegally [Fundepro, 2000, 10]. Raw land on the urban fringe costs RD$80–160 (US$5–10) per m^2 in 2000. Infrastructure costs for a full complement of services for a plot of 150m^2 amounted to RD$22,500–45,000 (US$1,365–2,730) per plot, or RD$150–300 (US$9–18/m^2) per m^2. The sale prices (as distinguished from costs) of serviced land plots of 150 m^2 by private construction companies were of the order of RD$52,500–75,000 (US$3,180–4,550), or RD$350–500 (US$21–30) per m^2 in 2000. If we take RD$425 per m^2 as a typical serviced land price on the urban fringe of Santo Domingo, for example, then the serviced land price–to–income ratio[14] amounted to 0.35% of annual median household income in the metropolitan area. This ratio compares favorably with an average of 2.1% for lower–middle income countries, 0.5% for countries in Latin America and the Caribbean, and 0.9% for the world at large [Angel, 2000, table 14.1, 198]. It suggests that serviced land in the metropolitan area of Santo Domingo is generally affordable to broad segments of the population. Given that low–income families typically occupy a plot with minimal services, rather than a full complement of services, often on invaded land, the actual price of residential land for them is even lower. Although no exact numbers are available, it is estimated that as many as 40 percent of the metropolitan population lives on invaded land with basic services.

Raw land on the urban fringe of Santo Domingo is subdivided into macro–blocks, serviced by infrastructure, and sold to builders on a significant scale by both private and public developers in the formal sector, as well as by informal developers. Ciudad Modelo, for example, is a private development of 5.5 km^2 (550 hectares) of land planned for 15,000 housing units. The land was bought from the Municipality at RD$100 (US$6) per m^2, and developed at high standards at a cost of RD$220 (US$13) per m^2. Builders now buy blocks of developed land at RD$650/$m^2$ (US$39/$m^2$) and build houses for sale in the RD$2 million (US$121,000) range. Las Praderas, to take another example, is a 0.36 km^2 public development undertaken by the National Housing Bank (BNV) on raw land obtained by the bank from the government. Builders bought blocks of serviced land from the bank at RD$800–2,000/$m^2$ (48–121/m^2) for building luxury homes—houses at Las Praderas now sell for RD$3–5 million (US$180,000–300,000) and apartments for RD$2–3 million (US$120,000–180,000).

Given the existing land development capabilities in the country and the existing structure of the land market on the urban fringes of cities, it is quite clear that the housing needs of many low–income urban families in the Dominican Republic could be realistically met by facilitating the acquisition of serviced sites by low–income households. For example, a typical 125m^2 serviced site could be acquired at a price below RD$33,000 (US$2,000), and used for the construction of a basic house, with a combination of household savings, a one–time housing subsidy voucher and a micro–loan. This possibility will be discussed in more detail in Section IV.

2. *Conditions in the residential construction sector:* As we noted earlier (see table 2), residential construction activity in the Dominican Republic outpaced both population growth and new household formation between 1981 and 1998. Approximately 58,000 dwelling units were added to the housing stock (net of replacement units) in the country, between 1993 and 1998 for example, 20,000 of which were in the National District. If we assume that 0.5 percent of the housing stock was replaced in a typical year,[15] a conservative assumption, then the total number of dwelling units built every year in the Dominican republic is actually of the order of 68,000, of which some 23,000 are in the National District.

Table 6 below provides information on the amount of floor space and the value of residential construction by the formal private sector in the Dominican Republic between 1994 and 1999. Some 150 private construction companies built houses and apartments for sale, but housing production was highly concentrated—as much as 75 percent of the total was built by the five largest construction companies. Although no figures are published on the number of units built, we can estimate from the table that the average number of units built between 1996 and 1999 was of the order of 12,000 units per annum.

Table 10 in the following section estimates that the public sector, through the National Housing Institute (INVI), may have added at most 3,000 new housing units per year between 1996 and 2000—both urban and rural units, but excluding emergency housing built after Hurricane Georges. This suggests that the established formal sector (private residential construction companies and public institutions) built some 15,000 units per year—less than a quarter of total new housing production—largely for high–income or high middle–income families. The rest was built by individual builders (both formal and informal, but generally without building permits) on individually–owned or illegally occupied lots. This is a very large percentage of unauthorized housing in regional comparative terms. It suggests that housing policy in the Dominican Republic must necessarily focus on this important segment of the residential construction sector, where the majority of housing is built, and where the great majority of low–income and middle–income families obtain their housing. It cannot simply rely on the formal sector to meet the basic housing needs of low and middle–income households.

Table 6: Private–Sector Residential Construction Activity
in the Dominican Republic, 1994–1999

	Residential	% of Total	Estimated

Year	Construction Area (m²)	Construction Value (RD$ '000)	% Of Area	% Of Value	Cost per square meter (RD$)	Cost per square meter (US$)	Number of Units at 80 m² Average	Number of Units at 100 m² Average
1994	521,900	1,198,926	52.7	53.8	2,297	174	6,524	5,219
1995	606,130	1,511,335	67.2	67.1	2,493	183	7,577	6,061
1996	771,323	1,983,830	62.5	64.0	2,572	186	9,642	7,713
1997	1,027,998	2,609,909	69.7	69.0	2,539	178	12,850	10,280
1998	1,148,386	2,970,035	72.2	71.5	2,586	169	14,355	11,484
1999	1,257,534	3,369,400	77.2	78.0	2,679	162	15,719	12,575

Sources: Estimated from data provided by Secretaría de Estado de Obras Públicas y Comunicaciones (SEOPC) and Oficina Nacional de Estadística (ONE) in DASA, 2000.

Typical construction costs (exclusive of the cost of land) vary considerably between the formal sector, the semi–formal sector (individual builders, usually without permits), and the informal sector. There are no published figures on these costs. Preliminary estimates suggest that construction costs in the formal sector are of the order of RD$2,500–5,000 (US$150–300) per m², but not lower. Construction costs in the semi–formal sector are of the order of RD$1,000–2,500 (US$60–150) per m². And construction costs in the informal sector are of the order of RD$500–1,000 (US$30–60) per m². Elisado Asensio, for example, is presently building a 85m² 4–bedroom house in the La Ciénaga squatter community, situated on the banks of the Ozama River in Santo Domingo. The house is made from concrete blocks, a concrete floor and a zinc roof, and includes a bath, a toilet and a kitchen sink. The total cost of the house is RD$40,000 (US$2,425)—RD$32,000 (US$1,940) for materials and the rest for professional labor (the family provides the unskilled labor).[16] His out–of–pocket construction costs are RD$470 (US$28) per m².

There are several building systems in the region that cost some RD$33,000 (US$2,000) for a basic core house of 36 m², or RD$900 (US$55) per m². Servivienda in Colombia, for example, can build a light–weight concrete house of this size for RD$36,000 (US$2,187) [CHF, 1999, 14]. The IDB–supported PARVIS program in Panama provides a building materials kit for a house of this size (concrete blocks, concrete floor, decorative block windows and a zinc roof) for some RD$28,000 (US$1,700) [Angel, 2000d, 22]. Given these ranges of construction costs, it is quite clear that the housing needs of many low–income families (both urban and rural) in the Dominican Republic could be realistically met by facilitating the acquisition of a basic core house by low–income households. A typical 36m² core house (or a building materials kit for such a house) could be acquired at a price well below RD$33,000 (US$2,000).

3. *The availability of mortgage finance:* The housing finance system in the Dominican Republic was initiated in 1962, with the creation of the mutual savings and loan associations and the National Housing Bank (BNV). The associations were to collect deposits from savers and to issue mortgage loans. The original roles envisioned for the Bank included the insurance of the deposits and mortgage loans of the associations, the

supervision of the associations' projects and banking practices, and the issuance of mortgage–backed securities. These roles have been compromised over the years, as the associations increased their portfolios and their political clout, as the percentage of insured loans was dramatically reduced, and as banking supervision was transferred from the Bank to the Superintendency of Banks in 1996. The bank still functions as an insurer of loans and deposits, but it has not been able to issue mortgage–backed securities because of the still chronic shortage of long–term deposits in the Dominican financial system. The finance and insurance operations of the Bank have not been profitable in recent years, but it has managed to remain solvent. It remained solvent only by the development and sale of lands obtained, at no charge, from the State. Its balance sheet in June of 1997, for example, remained positive only because of the transfer of lands valued RD$287.6 million (US$20 million) from the State. It then undertook the Vivienda Fácil Project, which entailed the development of infrastructure on these lands, and their sale at an estimated profit of RD$187.6 million (US$13 million) [Nogales, 1997]. It was profitable land development, rather than mortgage banking, that sustained the National Housing Bank (BNV) in recent years.

Mortgage credit in the commercial banking system in the Dominican Republic is given at variable market interest rates, for a period generally not exceeding 20 years. Mortgage lending institutions are relatively solid, and have successfully withstood the gyrations of regional and international financial markets. These institutions, like others in Latin America, are exposed to a high liquidity risk because of the shortage of long–term institutional funds (e.g. pension and insurance funds), and because they are forced to use short–term deposits for long–term mortgage loans.

The housing credit portfolio in the Dominican Republic is still rather small in comparative terms. In December 1999, for example, total credit amounted to RD$77.3 billion (US$4.7 billion), and the total outstanding mortgage credit amounted to RD$10.3 billion (US$635 million). Mortgage credit thus formed 13.4 percent of all credit, compared with a median value of 20 percent in the Latin American and Caribbean region. 90 percent of all mortgage credit in the banking system was issued by the 18 savings and loan associations in the country [Superintendencia de Bancos, 1999b, table 4, 11]. These associations had a total portfolio of RD$23.7 billion (US$1.4 billion) in December of 1999, of which only 43 percent were mortgage loans. A high proportion of the portfolio, 26 percent, was invested in other banking institutions [29], probably to reduce liquidity risk and increase profitability. Mortgage arrears rate in the associations were kept very low in comparative terms, and amounted to 2.4% in 1998 [IMF, 1999, table 36,144].

The number of mortgage loans issued annually by savings and loan associations has been growing at the rapid rate of 17% in recent years, from 3,713 in 1993 to 8,608 in 1998. Assuming that the formal private sector produced some 12,000 in 1998, we can infer that some 70 percent of new housing construction were supported by mortgage loans, and the rest was paid for in cash. By the end of 1998, the savings and loan associations issued a cumulative total of 107,935 mortgage loans. The average value of these loans has been rather stable, and there has been no appreciable loan size reduction in recent years. The average loan size was RD$450,547 (US$33,125) in 1995 and RD$470,434 (US$30,750) in 1998 [BNV, 1998, 37]. By December 1999, there were only 39,926 active mortgage loans in the country, with an average remaining balance of RD$259,000 (US$16,000) per loan [Superintendencia de Bancos, 1999b, table 4, 11].

A major constraint in access to mortgage credit in the country is the high level of mortgage interest rates, and the absence of any form of mortgage indexation. Typical mortgage rates now range between 24 and 28 percent per annum, severely limiting the numbers of households that are both willing and able to use mortgage credit. The cheapest housing unit sold by the private sector today is priced at RD$250,000 (US$15,150). A typical mortgage loan for this house requires a down payment of 30 percent, and monthly payments (say, at 24% per annum for 20 years) of RD$3,530 (US$214). If households were to pay no more than one–quarter of their monthly income on housing, only 30 percent of the households in the National District and only 18 percent of the households in the country as a whole could afford such a loan. In fact, of a total of some 2 million households in the Dominican Republic in 2000, only 2 percent had an outstanding mortgage loan, a rather small percentage in comparative terms.

4. Prices, rents, and affordability: House prices and rents in the Dominican Republic have been very stable. As mentioned earlier, the housing price index generally followed the consumer price index: The average increase in both indices was 6.3% between 1995 and 1999 [Banco Central, 1999a, 101–102]. There are no published figures on the overall price structure of the housing market in Santo Domingo and elsewhere. Table 7 below is a provisional and preliminary estimate of the distribution of house prices and floor areas in the Santo Domingo Metropolitan area at the present time. One–quarter of the estimated 490,000 units was in the lowest price category, where very few transactions actually took place because of the absence of savings or micro–credit to conduct such transactions. The median–priced house in Santo Domingo was valued at RD$150,000 (US$9,090) and was produced in the informal or semi–formal sector. The lowest–cost formal sector housing units, as noted earlier, now sell for RD$250,000 (US$15,150**). At** the upper end of the housing market, it is estimated that approximately half of the units produced by the formal private sector are now sold for less than RD$500,000 and one half are now for more than that.[17]

As table 4 has shown, median monthly household income in the metropolitan area was RD$122,000 (US$7,975) in 1998 and, therefore, the house price–to–income ratio in the National District was of the order of 1.1. This value is lower than any value found in

Table 7: Estimated Price and Floor Area Ranges of Dwelling Units
In the Santo Domingo Metropolitan Area, 2000

Price Range				Floor Area Range		Estimated	
(Dominican Pesos)		(US Dollars)		(m^2)		Number of	Percent
From	To	From	To	From	To	Units	of Total

5,000	50,000	303	3,030	10	40	120,000	24.5
50,000	100,000	3,030	6,061	30	70	80,000	16.3
100,000	150,000	6,061	9,091	40	120	40,000	8.2
150,000	250,000	9,091	15,152	40	120	50,000	10.2
250,000	700,000	15,152	42,424	40	150	90,000	18.4
700,000	1,000,000	42,424	60,606	100	150	80,000	16.3
1,000,000+		60,606+		100+		30,000	6.1

Source: Preliminary estimates from field observations and discussions with local experts.

Latin America and the Caribbean or in similar lower–middle income countries (except possibly Nicaragua). Houses in the Dominican Republic are, therefore, relatively inexpensive. But they are inexpensive not because land or construction costs are exceptionally low, but because households are under–investing in housing and because residential infrastructure is inadequate. Households are under–investing in their homes because of the lack of tenure security, and because of the lack of access to housing finance. And their homes do not acquire their full market value because they are not supported by a full complement of infrastructure services and social amenities.

Given that families can buy a new house in the formal sector for RD$250,000 (US$15,150), the down–market penetration of the formal sector is adequate—2.0 median annual household incomes are required to purchase the lowest–price formal sector house—not as low a value as Panama or Guatemala, but lower than the median for the Latin American and Caribbean region as a whole. As noted earlier, access to formal–sector housing in the Dominican Republic is restricted by high interest rates, and not by low incomes or high construction and land costs. If interest rates were lowered, a much larger number of households could afford to purchase houses in the formal sector.

Finally, although renters form a significant segment of the urban population—40 percent of households in the National District, for example—very little information exists on rents and rental housing. In the informal sector, people can rent small houses for RD$500 (US$30) per month, or single rooms for RD$300 (US$18) per month. Old housing units in the formal sector, valued at RD$300,000–700,000 (US$18,000–42,000), now rent for RD$1,000–3,000 (US$60–180) per month and can generate a rental income of 4–5% of their market value. Newer housing units in the formal sector, also valued at RD$300,000–700,000, rent for RD$3,000–7,000 (US$180–420) per month and can generate a rental income of 12% of their market value. Since the rate of house price appreciation is similar to the overall rate of inflation, such rental income may be an inadequate incentive to build rental housing, given the current deposit rates of 18.8% in commercial banks. It is difficult to calculate median rents, but it was estimated that housing expenditures in the National District (including the imputed rent of owned housing) amounted to 24.7% of total expenditures and 21.1% of total incomes in 1998 [Banco Central de la República Dominicana, 1999b, 18 and 253]. A rent–to–income ratio of this magnitude is, in fact, typical of the region.

5. Dwelling units and living space: Comparing the 1981 census and the 1998 household survey, we find that the number of occupied dwelling units per 1,000 people in the Dominican Republic has increased significantly—from 202 to 233 for the country as a whole, and from 212 to 242 in the National District. This is a significant and welcome improvement of a key performance indicator of the housing stock, and a major achievement for the Dominican housing sector. It indicates a reduction of overcrowding as well as a reduction in the average number persons inhabiting a dwelling unit. Statistics on the number of rooms per dwelling are not available for the 1993 census or the 1998 household survey, but are available for the 1981 census. The median number of rooms in the urban area of the National district in 1981 was 2.5 [table 43, 336]. The average number of persons per occupied dwelling unit was 4.0 [table 23, 286 and table 50, 362]. The number of persons per room was therefore 1.6. Gross estimates of the floor area per person, 14 m^2, and of the median house size, 54m^2, in the metropolitan area of Santo Domingo in 1981 were obtained by correlating persons per room and floor area per person for a sample of 53 countries [Angel, 2000, table A22, 369].[18] For lack of better data, we can assume that these numbers have increased since 1981 (a conservative assumption given the rapid reduction of household size). Preliminary field observations suggest that they are now most probably equivalent to median values for Latin America and the Caribbean—of the order of 16m^2 per person—and considerably higher than median values in other lower–middle income countries. The numbers suggest that, in general, there is no shortage of dwelling units and no observable overcrowding in the National District.

6. Housing quality: Most of the leading housing officials in the Dominican Republic condemn the quality of housing in the country and lament the existence of a "terrible housing deficit" [Reyes, 2000, 2]. And in more precise terms "a housing deficit that exceeds 800,000 units, requiring, in consequence, a national housing policy that supports the massive production of housing" [Troncoso, 2000, 4–5]; or "an accumulated housing deficit of approximately 600,000 new units, to which we have to add a large number of bad quality housing that do not possess the minimum conditions to be considered a decent roof" [Vargas, 2000, 2]. Surely, the quality of houses in the Dominican Republic reflects its level of economic development and its skewed income distribution. And surely, there are some communities that have to be evacuated and rebuilt elsewhere in the public interest, because of the continued danger to the lives of their inhabitants. But these places are in a minority. In general, given its level of economic development, given the available resources for housing—both those of households and those of the Government—and given the absence of affordable housing finance for low and middle–income housing, the quality of the great majority of houses in the country is generally satisfactory and improving.

Table 8 summarizes the key measures of housing quality, for which accurate data exists for 1998. The table suggests that some 89 percent of the structures in the National District, for example, can be considered to be permanent, capable of lasting twenty years or more. A very high percentage of housing units in the National District had concrete and/or wooden walls, hard floors, piped water, and electrical connections. Three–quarters of the units had indoor toilets. Yet, a worrisome feature of the housing stock in the Dominican Republic was the persistence of a large percentage of zinc roofs—69 percent in the country as a whole and 52 percent in the National District. It is worrisome because of the vulnerability of such roofs to tropical storms when they are not properly constructed and fastened to the walls. This is clearly an aspect of housing quality that could benefit from a broad program of disaster mitigation, focused both on instruction and on the actual retrofitting of zinc roofs to withstand tropical storms.

Table 8: Measures of Housing Quality in the Dominican Republic
and in the National District, 1998

Features	Dominican Republic Units	Dominican Republic Percent	National District Units	National District Percent
Concrete Exterior Walls	1,080,322	57	491,079	81
Concrete and/or Wood Exterior Walls	1,530,438	80	539,987	89
Concrete and Asbestos Roofs	490,996	26	289,618	48
Zinc Roofs	1,312,702	69	317,255	52
Hard Floors (Concrete, Tile etc.)	1,774,161	93	602,245	99
Piped Water Supply	1,614,916	85	586,965	97
Electrical Connection	1,669,540	88	604,952	100
Indoor Toilets	848,447	45	435,602	72
Municipal garbage collection	1,057,515	56	457,479	75
Total Number of Units	1,904,244	100	607,941	100

Source: Banco Central, 1999. *Encuesta Nacional de Gastos e Ingresos de los Hogares*, 183–211.

Although households are under–investing in housing, there is no question that housing quality in the country has been improving. Between 1981 and 1998, for example, the percentage of earth floors decreased from 21 to 7; the percentage of exterior walls made of palm boards decreased from 32 to 16; and the percentage of bamboo or straw roofs decreased from 15 to 5. According to a recent report of the Central Bank, these improvements "suggest that, in the growth of the housing stock, houses constructed with better and safer materials have been predominant, and that this has resulted in an improvement in the habitat of the Dominican population" [Banco Central, 1999c, 47]. It should be clear, therefore, that housing policy in the Dominican Republic should respect the quality and the value of the existing housing stock and focus on its improvement, rather than on its destruction and replacement. The possible means of improving the existing stock will be discussed in greater detail in Section IV.

7. Tenure: The rate of owner occupancy in 1998 in the National District, 60 percent, was somewhat lower that the median value of 65 percent for the Latin American and Caribbean region. As table 9 below shows, owner occupancy rates for the country as a whole were higher (75%) because of the low numbers of renters (8%) in the rural areas, and the lower percentage of renters (26%) in other urban centers.

There is no systematic statistical information on the size of the informal sector, more specifically on the percentage of unauthorized housing or squatter housing. The percentage of roofs that were not made up of concrete or asbestos—75 percent in the country as a whole and 52 percent in the National District—provides a lower limit for the amount of unauthorized housing. Clearly, there are many unauthorized houses that already have concrete roofs. The estimated percentage of housing production outside the established formal sector—of the order of 75 percent in recent years as we saw earlier—provides an upper limit. There is also a substantial quantity of houses produced in the semi–formal sector by individual builders, with or without building permits. A preliminary estimate of the percentage of unauthorized housing in the National District, given these limits, appears to be of the order of 55–65 percent. This is a very high percentage in comparative terms—the median value for the percentage of unauthorized housing in Latin American and Caribbean cities, as well as in the cities of lower–middle income countries, is lower than 30 percent.

Table 9: Households by Tenure Category in the Dominican Republic, 1998

Household Tenure Category	Dominican Republic	National District	Rest Urban	Rest Rural
Renter	25%	40%	26%	8%
Occupier, Free, with Permit	12%	8%	13%	16%
Occupier, Free, without Permit	0%	0%	0%	0%
Owner	63%	52%	61%	76%
Owner Occupiers	75%	60%	74%	92%
Total Households	1,919,064	617,160	680,223	621,681

Source: Banco Central, 1999. *Encuesta Nacional de Gastos e Ingresos de los Hogares,* 192.

The available statistical data also fails to indicate the percentage of squatter households who live on invaded land. Discussions with local experts suggest that as many as two–thirds of the unauthorized housing in the metropolitan area of Santo Domingo, or 40 percent of the total population of the National District, live on invaded lands. In light of the high percentage of squatters, it is difficult to explain why the number of renters is as high as it is—cities with large numbers of squatters usually have a high rate of home ownership. This issue cannot be resolved, however, without further systematic study. At any event, the preponderance of unauthorized housing and squatter housing in the National District suggests that housing policy in the Dominican Republic has generally failed to address the housing needs of major segments of the urban population. It also suggests that the authorities have generally ignored (either intentionally or out of benign neglect) the most prevalent form of housing production in the country. The status of housing policy in the Dominican Republic is the subject of the next section.

III THE STATUS OF HOUSING POLICY

The modern history of housing policy in the Dominican Republic began with the creation of the National Housing Institute (INVI) and the National Housing Bank (BNV) in May 1962. The law that established the National Housing Institute (INVI) stated, in no uncertain terms, that "having a decent house is a necessity and a basic human right." It also declared "that facilitating the acquisition of a hygienic and adequate home for every citizen is and should be a fundamental preoccupation of the Government of the Republic" [República Dominicana, 1962]. The law did not assert that all citizens are legally entitled to decent housing or that Government will protect their right to housing and ensure that they are decently housed. This is understandable. No government has been able to shoulder the full responsibility for housing its citizens over an extended time period. Instead, the law in fact committed the Government in general, and INVI in particular, to a facilitator role in the acquisition of housing.

The Constitution of the country, promulgated in 1966, avoided declaring decent housing to be a basic human right, and instead focused on two very specific housing policy prescriptions: creating a nation of homeowners (rather than tenants) and developing public sources of mortgage credit at below–market interest rates. It "declares the establishment of every Dominican in its owned land and house to be of high social interest. To that end, the State shall stimulate the development of public credit at socially–advantageous terms, aimed at making it possible for all Dominicans to have a comfortable and hygienic house." [República Dominicana, 1966, Art. 15 (b)].

In retrospect, as we shall see below, these legal and constitutional mandates did not materialize as envisioned. First, the National Housing Institute (INVI) immediately engaged in direct housing production and did not begin to take on a facilitator role in the housing sector until as late as 1996. And even as it did so, it only accepted this role reluctantly and at a relatively small scale compared to its role in the direct provision of housing. Second, while Government housing policy indeed focused on homeownership and avoided the proliferation of public rental housing, a preliminary comparison of census data suggests that rates of homeownership—particularly in urban areas—did not increase appreciably in recent decades. Third, public credit at below–market interest rates has proved to involve difficult–to–calculate public risks, financial market distortions, high and non–transparent subsidies, and unacceptable levels of default on mortgage payments. It is gradually being abandoned in favor of mortgage credit issued by private institutions at market interest rates.[19]

Housing policy in the Dominican Republic since 1962 has unfortunately been rather inconsistent, with the fortunes of the National Housing Institute (INVI)—nominally charged with the formulation and execution of a national housing plan—rising and falling and rising again in the process. Between 1962 and 1982 INVI engaged in the production of 19,000 low–cost housing units (an average of less than 1,000 units per year), as well as in emergency repairs and reconstruction of some 40,000 houses hit by Hurricane David. During this period, the various elected governments "expressed little political will in empowering the housing sector, expenditures by various INVI administrations had little continuity, and there was very little inter–agency coordination. INVI assumed the nearly exclusive responsibility on the part of the State for the solution of the housing problem of low– and middle–income families. But it was unable to translate it into massive action on their part, or to integrate the private sector and the community in the production of housing units" [INVI, 2000c, 4].

"INVI's decline as the principal government housing institution was the product of the decision to execute two mega–projects, in the two principle cities of the country, without adequate physical and socio–economic planning" [5]. These projects, Invivienda Santo Domingo and Invivienda Santiago, involved the construction of 12,000 new housing units in the two cities. Their implementation was hampered by various delays, and by a shift of responsibility—away from INVI in 1984 and then back to INVI in 1988. It tied up more than 80% of INVI's budget until 1996, "limiting its ability to engage in other projects and programs of high demand" [5].[20] Various government agencies (most importantly, the Office for the Coordination and Control of State Works operating under the President) engaged in the construction of some 30,000 housing units between 1982 and 1996, of which INVI built some 3,000, or 10 percent [5]. These units were given to beneficiaries generally below cost, at subsidized interest rates, and with inadequate arrangements for cost recovery resulting in high default rates. More progressive approaches to government intervention in housing, such as sites–and–services or urban upgrading, were basically shunned until 1996, for lack of both resources and interest on the part of the central government.

The Government that came into power in 1996 began to experiment with a new housing policy, based on the conclusions of the 1996 *National Forum Toward a New Policy for the Housing Sector and for Human Settlements in the Dominican Republic* [INVI and UNDP, 1996]. During the 1996–1999 period, allocations for housing by the central government increased rapidly. They rose from RD$64 million (US$5 million) in 1996, RD$292 (US$20 million) in 1997 and RD$537 million (US$35 million) in 1998 to RD$1.9 billion (US$120 million) in 1999 [INVI, 2000c, 30]—at an average annual increase of more than 200%. In addition, Decree 471–97 authorized the transfer to INVI of the housing portfolio of the Office of National Property, which included most housing built by other government agencies since 1986 [INVI, 2000d, 53]. By 2000, there were two government agencies with principal responsibilities in the housing sector—the National Housing Institute (INVI) and the National Housing Bank (BNV). The Bank, as noted earlier, engaged in monitoring the savings and loan associations, in insuring mortgages, in issuing its own loans for residential construction, and in the development and sale of residential land.

The new INVI housing policy of 1996 introduced a number of innovative instruments:

a. establishing the enabling and regulatory role of the State;

b. strengthening inter–agency coordination;

c. promoting community participation;

d. combining public sector and private sector resources in the execution of housing projects;

e. creating new special housing programs (e.g. urban upgrading, rural housing, tri–partite cooperation on housing with employers and employees, and legalization of tenure); and

f. introducing transparent direct–demand subsidies ("bono para la Vivienda") [INVI, 2000c, 12].

These new policy instruments, as we shall see below, commanded very different budget priorities, with the unfortunate result that most of the resources were still allocated to new public housing units. In an important sense, therefore, the modernization of housing policy in the Dominican Republic is only gradually commencing. Modern housing policy, besides its focus on an enabling and facilitating role for the State and on managing the housing sector as a whole, must focus on the reform of six major housing policy components:

1. the property rights regime;
2. the housing finance regime;
3. the subsidies regime;
4. residential infrastructure;
5. the legal and regulatory regime governing the housing sector; and
6. the institutional framework for government intervention in the sector.

The rest of this section will focus on the advances along each one of these dimensions of housing policy in the Dominican Republic in greater detail.

1. The property rights regime: There is no doubt that incomplete property registration and title documentation in the Dominican Republic, and the persistence of a large number of unresolved property disputes [see, for example, IDB, 1997], are hampering the development of residential markets. Incomplete documentation curtails investment in housing, as well as lending for housing. It is estimated that only 60 percent of the households in the National District, for example, have proper title documents. Improving property registration is, therefore, an important housing policy priority.

Although the informal sector may be responsible for 75% of annual housing production in Dominican cities, and although it is well–understood that the invasion of lands is a principal form of obtaining access to housing, it can be safely said that attending to the problems of the informal housing sector has not been a central part of government housing policy. In a way, the informal sector in the Dominican Republic still remains largely invisible. So much so that accurate statistics (and even gross estimates) of the number of unauthorized housing units, and more particularly of the number of squatters, are not available. Neither is it known, with any degree of accuracy, where squatter settlements are located or how many households inhabit each settlement.

Squatter settlements have largely been neglected and ignored beyond tallying their housing units as part of the housing deficit. Considering them to be part of the deficit implies that they are not fit for human habitation and that they should be destroyed and replaced by new hygienic units, to be provided either by the public sector or by the private sector. Needless to say, this is an unrealistic expectation. These housing units need not be replaced. They need to be improved. And they can and do improve over time, through the investment of savings and labor by their inhabitants. Experience in many developing countries has shown that there are three main barriers to their improvement: (a) the refusal of government to legalize the property rights of established squatters; (b) the refusal of governments to provide adequate infrastructure services in squatter settlements; and (c) the absence of mortgage lending or micro–finance for house improvements.

While many countries in the Latin American and Caribbean region have made rapid progress in the legalization of squatter settlements—the Municipality of Guayaquil, for example, now provides title documents to 15,000 families a year [Angel, 2000e]—progress in the Dominican Republic has been largely unsatisfactory, with two notable exceptions. First, in 1998, the previous government issued Decree 113–98 that established the Commission for the Titling of Urban Lands. The function of the Commission is to recommend to the Executive Power the legal transfer of State lands (occupied for no less than 5 years) to their occupants [República Dominicana, 1998]. The Decree did not specify at what price, if any, such legal transfers shall be effected, nor did it specify any procedure for the legalization of occupied *private* lands. The National Housing Institute (INVI) planned to legalize land tenure for 3,000 families by August 2000, for a total budget of RD$200,000 (US$12,300) or RD$67 (US$4) per family [INVI 2000d, 58], and initiated legalization work in two communities in the Santo Domingo Metropolitan area—Las Minas Sur and Los Molinos. There are two tenure regularization initiatives now under way: (a) a national program for granting tenure on public lands—the National Titling Plan of the General Administration of National Property [Unidad Ejecutora del Plan Nacional de Titulación, 2000] and (b) a national program for granting tenure on private lands initiated by the Foundation for the Defense of Property Rights (Fundepro), a non–government organization [Fundepro, 2000].

The recently established real estate agency of the State Sugar Council (CEA) has begun selling occupied CEA land to individual families. Since a large (and unknown) number of households occupy CEA lands illegally, particularly in the Santo Domingo metropolitan area, the CEA initiative also constitutes a major tenure legalization program. For example, in October 2000, Ramón Zokiel, an established squatter in Pantoza—some 14 kilometers from the center of Santo Domingo—was able to buy his

105 m^2 plot from CEA. He paid the market price of RD$250/$m^2$ (US$15/$m^2$) for the plot, with a down payment of RD$7,900 (US$480) and a commitment to make 36 monthly payments of RD$610 (US$37).[21] There is a public debate at present about selling occupied CEA land to squatters at a "social"—rather than a market—price [Ruiz, 2000, 6D]. And it is clear that squatters, like Ramón Zokiel, would fair better in a collective bargaining arrangement with CEA than in individual negotiations. Compensation to CEA, at any event, should be based on the *actual* market value of occupied lands, taking into account that lands occupied by squatters have a much lower value than vacant lands in their vicinity.

2. *The housing finance regime:* The housing finance regime in the Dominican Republic contains two principal types of actors: (a) public agencies that build, sell and finance housing; and (b) a system of commercial banking institutions and mutual savings and loan associations that finance housing built and sold by the private sector. As noted earlier, the provision of mortgage finance by public institutions at below–market rates has proved to be rather inadequate. It contained numerous non–transparent subsidies, as well as high levels of default. The public mortgage portfolio is now administered by the National Housing Institute (INVI), which derives some income from it, but it is quite clear that in the future mortgage lending should be administered by the private sector at market rates.

The regime governing housing finance in the Dominican Republic has changed little since 1962, although conditions now are quite different from those prevailing forty years ago. The National Housing Bank (BNV) is no longer fulfilling its envisioned role, and—were it not for its own real estate investment projects—may no longer be financially viable. Banking supervision of the savings and loan associations has now been transferred from the Bank to the Superintendencia de Bancos, but their mutual—rather than corporate—status has been maintained, preventing their full integration into the commercial banking system. The necessary reforms of pension and life insurance funds have been postponed, withholding the long–term institutional deposits that are necessary for the development of a secondary mortgage market and for the sale of bonds secured by mortgages.

The mortgage insurance scheme administered by the National Housing Bank (BNV) has proved unattractive to the savings and loan associations and participation rates have fallen. The BNV is now competing with the associations rather than supervising and regulating them effectively. Their mortgage lending portfolios, for example, are a comparatively low percentage (43%) of their total active portfolios yet there are no rules or fiscal incentives for them to increase this percentage. Lending–to–deposit interest–rate spreads (on certificates of deposit) are still high, of the order of 6–10 percent, but there are no competitive pressures on lenders to reduce these spreads. Lending–to–deposit spreads on saving book deposits are more than double that (18–24 percent), and there is no saving–for–housing program that allows savers to accumulate funds for a down payment. Neither is there a hire–purchase housing program ("leasing habitacional") that enables renters to become owners once their good credit is established. And finally, while inflation has been kept to single digits, there is no system for reducing lending rates through some form of indexation. Average loan size is also high, and there are presently no low–cost housing solutions, such as serviced sites or progressive housing, that could attract lenders down–market. There is already some experience in the country in micro–finance (e.g. Bank Ademi and Banco de la Mujer) that can be expanded upon and extended to house improvements and extensions. In general, however, there are powerful supply–side constraints in the Dominican banking system—most notably its high lending rates—that are likely to prevent the rapid expansion of mortgage credit and its further penetration down–market in the years to come.

3. *Housing subsidies:* Housing subsidies in the Dominican Republic are a critical element of housing policy, but organized information on subsidies is difficult to obtain because many of them are not transparent at all. For example, the new Director General of the National Housing Institute (INVI) identified seven different subsidy types in the Institute's past projects:[22]

(a) giving away housing units at no cost as political favors;

(b) pricing housing units for sale below cost;

(c) paying higher–than–market construction costs (a subsidy to builders);

(d) selling serviced land at below–market prices or giving it free;

(e) not including interest during construction in the final house price;

(f) charging below–market interest rates on mortgage loans; and

(g) allowing a high rate of default on mortgages.

Needless to say, there is no available information for calculating neither the total expenditure on each of these seven subsidy items; nor the average value of subsidy per beneficiary; nor the total number of beneficiaries benefiting from each type of subsidy; nor the socio–economic profile (e.g. the household income) of targeted beneficiaries. This is unfortunate. Indirectly, however, it is possible to obtain some information on these important questions by evaluating the housing programs of the two major public institutions involved in the provision of housing subsidies—the National Housing Institute (INVI) and the National Housing Bank (BNV). Detailed data is available for INVI's housing program, for example, for the years 1996–2000, and for BNV's proposed (but not approved) housing program for the years 2001–2004. The data has been regrouped and summarized in tables 10–12. Table 10 summarizes the housing program of the National Housing Institute (INVI) during the years 1996–2000.

Table 10: The Housing Program of the National Housing Institute (INVI), 1996–2000

	Planned	Total Budget		Budget per Unit		Completed Units		
Housing Program	Units	Amount (RD$)	%	(RD$)	(US$)	Total	%	Per Year

New Housing Counstruction	16,442	2,458,951,047	61.7	149,553	9,775	3,136	19.1	1,045
Invivienda Projects	5,210	807,975,916	20.3	155,082	10,136	176	3.4	59
Urban Housing Improvements	14,934	183,097,620	4.6	12,260	801	1,143	7.7	381
Rural Housing	1,506	33,379,586	0.8	22,164	1,449	429	28.5	143
Emergency Housing Repairs (Hurricane Georges)	39,996	179,603,035	4.5	4,491	293	39,996	100.0	13,332
Site and Services	134	23,685,597	0.6	176,758	11,553	32	23.9	11
Tenure Regularization	3,000	200,000	0.0	67	4	0	0.0	0
Direct Demand Subsidies	10,000	300,136,000	7.5	30,014	1,962	673	6.7	224
Total	91,222	3,987,028,801	100.0	43,707	2,857	45,585	50.0	15,195

Source: Calculated from INVI, *Lineamientos de Políticas, Estrategias, Programas y Proyectos del Sector Vivienda 1996–2000*, 2000, 40–58. Completed units are as of December 1999. Exchange rate was calculated for 1998, RD$15.30 = US$1.00.

We can assume that most of the program budget displayed in table 10 was in housing subsidies for each one of the program elements. Cost recovery from beneficiaries of INVI projects averaged RD$33 million (US$2.2 million) between 1996 and 1999, and amounted to some 7% of the total program budget during these years [INVI, 2000c, 30 and INVI, 2000d, 56–57]. On initial inspection, the housing subsidy program displayed in table 9 contains several elements of an enabling housing program: for example, tenure legalization, sites–and–services, and direct–demand subsidies. The glaring absence of any program budget for upgrading infrastructure in urban informal settlements is worrisome: Urban infrastructure upgrading formed only 1.2% of all investments in urban housing improvements [INVI, 2000c, 41–42].

The fact that the great bulk of INVI's program budget, 82 percent, was allocated to the construction of new housing units, at an average direct cost of RD$150,000 (US$9,800) per unit is also a cause for concern. Given the presence of hidden subsidies, it is not even clear that these new houses are any less expensive than the lowest–price housing units now produced by the private sector, that now sell for RD$250,000. Moreover, when we look at the number of completed units, we see that levels of completion (except in the case of the emergency housing repairs associated with Hurricane Georges) were rather low, and that almost no housing solutions were completed in the more–enabling elements of the housing program. In short, the INVI subsidy program during 1996–2000 may have been nominally enabling, but in practice it was still a traditional public housing program, with the typical drawbacks inherent in such programs—non transparent subsidies, high levels of subsidies per beneficiary, and low rates of cost recovery.

Different kinds of subsidy arrangements are present in the new *Minimal Housing Program 2001–2004* recently proposed by the National Housing Bank [BNV, 2000]. The Bank proposed a program involving the construction of 47,959 new housing units during this four–year period. These new units are to be built and sold at market prices by private–sector developers, and, if built, would more–or–less double the current annual production of 12,000 by the formal private sector. This volume may not be sustainable by present housing demand, especially since most units will be aimed at higher–income households, the only households that can afford them given the high interest rates on mortgage loans. Table 11 below lists the proposed housing types in the program. As the table shows, house prices are similar to those now prevailing in the bottom half of the formal private sector.

Table 11: Housing Unit Types in the Proposed Minimal Housing Program of the National Housing Bank (BNV), 2001–2004

Housing Unit Type	Floor Area (m^2)	Estimated Sale Price (RD$)	Down Payment (RD$)	Mortgage Loan (RD$)	Monthly Payment† (RD$)	Income Needed†† (RD$)	Affordability Deciles††† In Urban Areas
Minimum Apartments	52	270,000	81,000	189,000	3,813	183,019	8th, 9th, 10th
Low-Density Minimum Housing	52	310,000	93,000	217,000	4,378	210,133	9th, 10th
Minimum Apartments	72	438,000	131,400	306,600	6,185	296,898	9th, 10th
Low-Density Minimum Housing	72	490,000	147,000	343,000	6,920	332,146	10th
Apartments in Existing Barrios	72	550,000	165,000	385,000	7,767	372,817	10th
Average Housing Unit	64	411,600	123,480	288,120	5,813	279,003	9th, 10th

Source: Banco Nacional de la Vivienda, "Programa de Viviendas Mínimas, Plan Indicativo 2001–2004," tables 2–4. † Calculated at 24% annual interest for 20 years. †† Assuming households pay no more than 25% of their income on housing. †††Based on annex table A1.

The first two housing types, priced at RD$270,000 (US$16,400) and RD$310,000 (US$18,800), are aimed at urban households with "minimal" incomes (3.5 to 5.0 minimum urban salaries, or annual incomes of RD$121,600 and RD$173,700). Given present financing terms, they are only affordable by the highest three income deciles. The other three housing types, priced at RD$438,000 (US$26,500), RD$490,000 (US$29,700), and RD$550,000 (US$33,300) are aimed at urban households with "low–middle" incomes (5.0 to 8.5 minimum urban salaries, or annual incomes of RD$173,700 to RD$295,000). Given present financing terms, they are only affordable by households in the highest two income deciles. It is fair to conclude, therefore, that the proposed Minimum Housing Program is not targeted at urban households with below–median incomes. It is targeted at higher–income households.

Table 12 summarizes the Proposed Budget for the Minimal Housing Program of the National Housing Bank (BNV) for 2001–2004. The Bank is requesting a total of RD$5,145 million (US$312 million) from the Government over a four–year period in free land transfers and ordinary budget allocations. It proposes to use one–third of the budget to purchase an additional 2 km² of land and to develop 5.4 km² of land with infrastructure. In addition, it proposes to use the remaining two–thirds of the budget for providing interim construction finance to private developers for building houses and apartments. The total budget allocation per unit in the program amounts to RD$107,300 (US$6,500). The completed units will be sold on the market and provided with mortgage loans by savings and loan associations, doubling their loan portfolio in the process.

Table 12: The Proposed Budget for the Minimal Housing Program
of the National Housing Bank (BNV), 2001–2004

Budget Item	Number of Units	Budget Per Unit (RD$)	(US$)	Total Budget (millions) (RD$)	(US$)
Land Transfer to BNV (m^2)	3,439,000	100	6	343.9	20.8
Land Purchase by BNV (m^2)	2,000,000	100	6	200.0	12.1
Raw Land Subtotal (units)	43,159	12,602	2,616	543.9	33.0
Infrastructure Development (m)	5,439,000	240	15	1,305.4	79.1
Serviced Land Subtotal (Units)	43,159	42,848	2,597	1,849.3	112.1
Construction Finance I (Apartments)	6,414	175,000	10,606	1,122.5	68.0
Construction Finance II (Houses)	6,415	200,000	12,121	1,283.0	77.8
Construction Finance III (Apartments)	3,200[23]	275,000	16,667	880.0	53.3
Construction Finance Subtotal (Units)	16,029	204,969	12,422	3,285.5	199.1
Program Administration	47,959	209	13	10.0	0.6
Total Budget	47,959	107,273	6,501	5,144.7	311.8

Source: Banco Nacional de la Vivienda, "Programa de Viviendas Mínimas, Plan Indicativo 2001–2004," tables 2–4.

It is not clear that financial resources are available at present to achieve that level of mortgage credit expansion. Nor is it clear that there is a shortage of interim construction finance in the private sector to necessitate government intervention. Moreover, the National Housing Bank stands to recover all its costs from the sale of serviced lands, as well as all its construction finance outlays when private builders sell their units. The total program budget will indeed end up as a subsidy to the National Housing Bank, presumably be used as a revolving fund in its future operations. This is, needless to say, quite different from the direct demand–side subsidy ("Bono para la Vivienda") issued to households or communities to assist them in lowering their housing expenditures. In fact, as the program is structured at present, it does not contain any subsidy that reaches individual households, let alone households with below–median incomes.

In conclusion, the housing subsidy regime in the Dominican Republic is still largely focused on supply–side subsidies rather on demand–side subsidies. Most of the existing subsidies are not transparent and difficult to calculate precisely. Lending at below–market interest rates seems to be on the wane, but this may be illusory in light of the fact that the National Housing Institute (INVI) is still committing most of its resources to building new housing units that require mortgage loans. Indeed, most subsidies are presently directed to building new housing units, and very little resources are being directed at progressive housing solutions or at improving the existing housing stock. The targeting of subsidies, especially in the National Housing Bank (BNV) program, leaves much to be desired as well. And finally, per–unit subsidies for new housing units appear to be rather large, with the result that only a small number of deserving beneficiaries can be reached.

4. Residential infrastructure: The Dominican Republic has generally lagged behind other countries in the region in upgrading residential infrastructure in informal settlements. The single exception is the San Juan de la Maguana urban upgrading project, initiated in 1996 with the assistance of GTZ (the German technical assistance agency). Of the total amount invested by the National Housing Institute in its programs during 1996–1999, only RD$396,000 (US$26,000) was actually expended on urban infrastructure upgrading [INVI, 2000c, 41–42], a miniscule amount by all measures. This is yet again a particular symptom of the general invisibility of the informal sector in housing policies and programs in the country. While a majority of the urban housing stock in the country is, in fact, in the informal sector, there is no effort on the part of government to upgrade this stock through this key enabling strategy. The improvement of residential infrastructure in informal communities has been shown, again and again, to lead to increased investments on the part of residents in their housing; to improve social organization and people's participation in low–income communities; and—together with tenure legalization—to increase the value of household investments in dwellings. It is rather surprising, therefore, that such little progress has been made in the Dominican Republic along this important dimension of housing policy.

The timely extension of urban infrastructure networks to new lands on the periphery of cities is an essential component of an enabling housing policy. The availability of residential land in ample supply at accessible locations is critical for maintaining affordable land prices, and therefore for keeping housing affordable. There are numerous public agencies engaged in the planning and execution of urban infrastructure projects. Decree 385–97, for example, created the National Commission on Urban Affairs and the National Council for Urban Affairs (CONAU) to coordinate the development of urban infrastructure in line with Government economic development objectives. The council has recently produced expansion plans for numerous cities, but it was not clear at the time of writing whether these plans were accompanied by the budgets necessary for the timely implementation of infrastructure projects.

As noted earlier, both the public sector (namely, the National Housing Bank) and the private sector (e.g. Ciudad Modelo) in the Dominican Republic have substantial capabilities in the development and urbanization of lands on the urban periphery, their division into macro–blocks, and their sale to private–sector housing developers and residential construction companies. This is an important element of any enabling housing policy, and there is no question that, along this dimension, the Dominican Republic is ahead of many other countries. The capabilities are there, but, as of now, most such lands are not targeted to low– and middle–income families. Macro–block development can be an important housing strategy for preparing urban expansion rings on the periphery of cities, in preparation for their doubling in size in the next twenty years. It can also be useful for preparing land for sites–and–services projects.

5. The legal and regulatory regime governing the housing sector: There have been several calls for a systematic study of the legal and regulatory regime governing the housing sector, with the aim of reforming and updating this regime, in line with several proposals for housing policy reform. In particular, there have been calls to reform the rent control legislation [e.g. Reyes, 2000, 9] so as to stimulate the construction of rental housing; and to revise the General Ordinance of Construction and Urbanization so as to make progressive land development and housing construction possible [e.g. El Proyecto DOM96– 010, 1997]. No information was available at the time of writing on any detailed studies of possible regulatory reforms, but there is no doubt that a regulatory reform initiative is a critical element of an enabling housing policy. On the positive side, it is important to note that Decree 115–98 created the direct–demand subsidy program ("Bono para la Vivienda"), that can provide one–time subsidies to supplement the down payment for a house costing not more than RD$350,000, produced and financed by the private sector.

6. The institutional framework: As noted earlier, the institutional responsibility for establishing and executing the Government's housing policy in the Dominican Republic, and for ensuring that housing policy is coordinated with economic policy, social policy and urban development policy is not clear. Legally, the National Housing Institute (INVI) is charged with this responsibility, but in practice, the National Housing Bank (BNV) and various agencies empowered by the Office of the President to undertake housing initiatives have compromised the ability of the Institute to coordinate and administer housing policy. In particular, the National Institute for Assistance and Housing (INAVI) built housing for civil servants, and the Supervision and Coordination Office of State Works has undertaken several housing initiative on behalf of the Office of the President. Decree 471–97 has now transferred the administration of (as well as any potential revenue from) all housing projects constructed by public agencies since 1986 to the National Housing Institute (INVI).

The numerous institutions engaged in the formulation and execution of various elements of housing policy in the Dominican Republic do not necessarily coordinate their activities. It appears that no institution is charged with overseeing the housing sector as a whole. Except for INVI's marginal involvement in legalization and settlement upgrading, there is no public or civic institution with any significant interest or experience in improving tenure and infrastructure in existing urban communities. The National Housing Bank (BNV) and the savings and loan associations focus on housing finance—a critical component of an enabling housing policy. But they have expressed little interest to–date in an overall housing policy that takes the informal sector into account, or in moving further down–market to finance lower–cost housing solutions such as sites–and–services and house extensions or improvements using micro–credit. Housing policy for them remains limited to the construction of new formal–sector dwelling units that, at present, only benefit the upper segment of the household income distribution. This is, no doubt, an important component of housing production and housing finance, but it falls short of constituting a comprehensive housing policy for the country at this time.

IV GUIDELINES FOR ACTION

Housing policy in the Dominican Republic is presently at a crossroads. The new government of President Hipólito Mejía is eager to embark on a massive housing program, a program that will yield 200,000 housing solutions during the next four years. Previous governments have generally focused their housing policies almost solely on the formal sector—private–sector housing production and finance on the one hand, and public–sector housing production and finance on the other. It has become abundantly clear, however, that the formal sector, which typically supplied less than one–quarter of new housing production in any given year—some 12,000–15,000 units—cannot be and should not be relied upon to produce the required 60,000–70,000 units a year. The great majority of Dominican households do not yet have the incomes necessary to afford even the cheapest units built by the formal sector. And there are still serious bottlenecks in housing finance that make it impossible to rapidly increase mortgage credit or to reduce mortgage interest rates to affordable levels. An effective housing policy must of necessity shift its attention to the informal housing sector, which currently produces some 75% of new housing solutions, which cannot and does not rely on mortgage–finance, and where the great majority of the population of the Republic now resides.

Unfortunately, this shift is not so simple. The neglect of the informal housing sector by most previous administrations has resulted in a lamentable lack of knowledge about the sector, in a reluctance to accept "bad" housing as housing that can and should be improved, and in the dearth of experience with partial and progressive housing solutions. Other than some minimal starts since 1996, very little experience has been accumulated in the country with urban infrastructure upgrading, tenure legalization, house improvements and extension, core–house production, sites–and–services, micro–credit for housing, and other progressive housing solutions. This is rather unfortunate, because it makes the implementation of an entirely new housing program at the required scale in such a short time span even more difficult. On the positive side, it must be noted with satisfaction that a very large emergency–housing assistance program was implemented rapidly in the aftermath of Hurricane Georges. And, in parallel, that the country has accumulated an enviable experience in the large–scale urbanization of lands on the periphery of cities. Both are useful and essential experiences in the move towards a housing policy that operates on an adequate scale.

Practically every government in every country has now moved away from the traditional housing programs that focused on the production and financing of completed dwelling units—in small quantities and with large per–unit subsidies—and towards a strategy that focuses more intently on partial housing solutions. Such partial solutions can be implemented in large quantities and with smaller per–unit subsidies. A housing policy for the Dominican Republic that requires working at an adequate scale must move away from a paternalistic "provider" role and into a more participatory "enabling" role. And an enabling and facilitating role for Government must necessarily rely on other intermediaries in the production and improvement of houses and communities—the private sector, the civic sector, specific implementing agencies in the public sector, informal–sector builders, and ultimately the individual households themselves.

The reluctance to shift housing policy in the Dominican Republic in this direction may be understandable. But it is a timely challenge that can no longer be avoided. The new government is committed to a large–scale and ambitious housing program. It is prepared to invest a substantial part of its limited resources in meeting the country's housing needs, and it would indeed be a pity if these funds would be squandered on the failed paternalistic programs of the past. In the remainder of this section, we outline a set of guidelines for a new housing policy for the Dominican Republic, focusing on the key components of housing policy discussed in the previous section.

1. *Action on property rights*: The establishment of a regime of individual property rights in land and housing is the cornerstone of an enabling housing policy regime. Property registration throughout the Republic must be accelerated. An accurate inventory of invaded lands—as well as basic information on squatter communities—must be prepared. The national land regularization program must be aggressively pursued, with the goal of securing land titles for all established squatter communities—both on public and on private lands. This requires strenghtening both the National Titling Plan of the General Administration of National Property and program for granting tenure on private lands initiated by the Foundation for the Defense of Property Rights (Fundepro). A pricing policy governing the sale of occupied public, as well as private, lands must be decided upon without delay. A careful study should be undertaken to identify a minimal number of specific communities that cannot be legalized—only because of a serious and persistent danger to the health and safety of their inhabitants—and to estimate the budget needed for their proper resettlement.

Legalization of tenure should be contingent upon the preparation of plans for infrastructure improvements, the delineation of property boundaries, and resettlement plans for those households that need to be moved, but need not wait upon their actual implementation. To be effective, it should be done in conjunction with community–based organizations. To be done at scale, it should involve intermediaries—typically municipalities, civic–sector organizations (NGOs), or ad–hoc private–sector teams—and should benefit from small subsidies. Tenure regularization typically results in greater levels of investment, in greater access to credit, and in a more dynamic housing market.

2. *Action on housing finance*: There is an undeniable economic logic in borrowing money for building or buying a house. "Housing yields a stream of services over a period of

years and it is therefore logical that it should be paid for over a period of years by means of loan repayments rather than in one lump sum. If people had to pay for their housing in one go then very few would be able to afford housing until very late in life. Loan finance is therefore essential to make an owner–occupied housing market work with full efficiency" [Boleat and Coles, 1987, 11].

For loan finance in the Dominican Republic to become more accessible, mortgage interest rates must be reduced. This is partly a macro–economic problem outside the housing sector—deposit rates on certificates of deposit are very high. But it is also partly a problem of inefficiency in the housing mortgage market in general, and in the savings and loan industry in particular. While the cost of funds is of the order of 14–15 percent, mortgage loans are now extended at 24–28 percent. They could be lowered to 17–18 percent if lenders were more efficient, and if they competed more vigorously among themselves and with commercial banks. They are not likely to do so unless they become corporate and have to answer to their investors. Securitization of mortgages should follow incorporation and the opening up of the mortgage market to greater competition in the entire banking sector, rather than precede them.

Still, there is no question that lending at market rates must remain the norm, that lending at subsidized rates by public institutions should be stopped, and that the management of existing public lending portfolios must be improved. Arrangements must be put in place to extend interim financing to developers that will enable them to sell houses on a hire–purchase basis ("leasing habitacional"). Other arrangements must be introduced to facilitate micro–finance for progressive housing solutions, vastly reducing the present average size of a loan. If lending for housing is to be subsidized at all, then it should be supported by one–time up–front subsidies given to borrowers to supplement their down payment.

3. *Action on housing subsidies*: The administration of an effective and transparent system of housing subsidies, broad in its coverage and well–targeted to those in need, is an essential component of an enabling housing policy. Housing subsidy policy in the Dominican Republic should now move away from supply–side subsidies that allocate subsidy funds to producers, especially to public producers like the National Housing Institute (INVI) or the National Housing Bank (BNV). It should focus instead on demand–side subsidies that are allocated directly to deserving beneficiaries. To do that, it should revise and narrow the definition of low–income households. It should target housing subsidies only to households in the lower three quintiles of the income distribution (households earning less than 3.5 urban minimum salaries), where housing needs are more acute. In general, these subsidies should be small, transparent, administered through intermediaries, capable of generating multiplier effects, and focused largely on progressive housing solutions rather than on completed new housing units.

It is fruitful to think of such housing subsidies as vouchers. In the Dominican Republic, a universal housing subsidy voucher could be used to assist low–income households in one of several progressive housing solutions as well as in purchasing low–cost houses produced by the private sector. It could be used to (a) purchase a serviced site, (b) upgrade infrastructure in existing communities, (c) improve and extend an existing house, (d) buy a kit for building a core house in a rural district, or (e) supplement a down payment and a mortgage loan for a low–cost house produced by the private sector. If the costs of progressive solutions are found to be higher, such a voucher could be accompanied by a small micro–loan, as well as by a short–term hire–purchase arrangement. If the costs of other solutions—a tenure legalization program or a disaster prevention program focused on tying down zinc roofs—are found to be lower, they may involve smaller vouchers.

4. *Action on residential infrastructure*: The efficient and equitable provision of residential infrastructure is, without doubt, an essential component of an enabling housing policy. And the housing sector cannot function at an adequate, let alone optimal, level unless it is supported by an adequate supply of infrastructure services. These include roads and walkways; water, sewerage and drainage; power and telecommunications; solid waste disposal; police and fire protection; schools, parks and playgrounds, sports and cultural facilities; and health services.

Infrastructure improvements in existing communities—be they squatter communities or informal land subdivisions—have been largely neglected by previous housing policies. As a result, the Dominican Republic now lags behind many countries in Latin America and the Caribbean region which have gained considerable experience in upgrading infrastructure in established human settlements. Steps must now be taken toward the gradual implementation of a national program of urban infrastructure upgrading. Such a program will enhance the utility and the economic value of existing houses, as well as increase housing investment by individual households. It should be undertaken—initially on an experimental basis—by both public agencies and civic organizations, and, to be effective, it should actively involve community organizations.

Regardless of any public action to contain urban growth, Dominican cities, including Santo Domingo, will most probably double their populations in the next twenty years. Preparations must be made, therefore, for an urban growth ring surrounding each city, equal in area to the present area of the city. These preparations must include strategic physical plans, plans for the acquisition of lands required for road networks and public facilities, and medium– and long–term budgetary plans for infrastructure investments, to be coordinated by the Council on Urban Affairs (CONAU), the municipalities, and the State Secretariat of Public Works and Communications. The timely extension of infrastructure networks into the urban periphery is essential for maintaining adequate residential land supplies, as well as for maintaining stable house prices.

The experience gained in the Dominican Republic in the urbanization of large areas of land, their division into large macro–blocks, and their subsequent sale to private developers could be very useful in preparing new settlement areas as part of a broader program to create serviced sites for progressive housing, core housing or minimally–priced completed houses. Needless to say, it would require urbanization at more affordable standards. Macro–blocks can then be sold to private sector developers, to civic sector organizations, or to organized communities, which will subdivide them into individual plots, and extend the services to these plots. In this way, it will be possible to prepare large numbers of new serviced sites for housing. These sites could be subsidized with vouchers, and could also be used to relocate households from dense communities that need to be resettled to make way for infrastructure improvements in the community.

5. Action on the legal and regulatory regime governing the housing sector: There is a need for a systematic study of the effect of laws and regulations on housing sector performance in the country. Specifically, the effects of rent–control legislation on the one hand, and land subdivision regulations and building codes on the other, need to be examined in greater detail. There may be a need for new legislation to facilitate land regularization, infrastructure upgrading in existing settlements, and hire–purchase agreements. There may also be a need to examine the regulatory environment of the savings and loan associations and to propose legislation that would lead to their transformation into corporations and to the greater competition among them necessary to bring down mortgage interest rates.

6. Action on institutional reform: Unfortunately, National Housing Institute (INVI) does not have, at present, a comprehensive housing policy, nor does it have an organizational structure that can lead to the formulation of such policy and its development over time. It is still, in an important sense, oriented towards the construction and financing of complete housing units (both houses and apartments). It is not oriented toward managing the housing sector as a whole, moving down–market to deal with the informal sector, and facilitating housing actions by other key stakeholders in the sector. And its individual efforts do not add up to a common and comprehensive strategy. There is an urgent need, therefore, to create a unified leadership of the housing sector and to ensure that the leadership is committed to housing policy reform. Secondly, there is a need to increase the technical and operational capabilities of the public agency (or agencies) charged with administering the Government's housing program.

The National Housing Institute (INVI) clearly has a broader housing mandate and a broader range of experiences in progressive housing solutions than any other government institution. The National Housing Bank (BNV), initially focussed on overseeing the savings and loan associations, no longer has a clear mandate and is seeking a new role and a new mandate. It has more experience in working with the private sector (both with construction firms and with financial institutions) and in large–scale land development. The National Housing Institute (INVI) should seek to create a broader platform for managing the housing sector. Given that broader platform, each stakeholder should seek to shoulder specific responsibilities for implementing different elements of the housing program. And assuming that a number of program elements will be new, both agencies could benefit from international technical assistance.

A broad–based National Housing Council (NHC), initiated by the National Housing Institute (INVI), could provide such a platform. The Council could include representatives from BNV, other ministries (e.g. finance, planning, public works), the

Council for Urban Affairs (CONAU) and the municipalities, the private construction sector and the banking sector, the civic secotr, existing squatter communities, and households that have enrolled in the housing program. It should then be charged with the formulation and guidance of national housing policy, with the review and monitoring of the Government's housing program, with the formulation and advancement of new housing legislation, with the review of the housing subsidy regime, and with the dissemination of regular reports on the state of the housing sector.

The National Housing Council (NHC) should be assisted by a Housing Intelligence Unit (HIU), answerable to the Council, which will collect and publish regular data on housing indicators. The Unit will also publish monitoring and evaluation reports on operating programs, and provide regular information—as well as special studies—to the Council as necessary for the conduct of national housing policy. The Unit should attract and employ highly qualified personnel, and should contract information gathering and evaluation assignments to outside sources, making use of both local and international consulting firms.

7. Further Study: This report was necessarily constrained by the lack of information on important aspects of the housing sector. It should be quite obvious from reading the report that there is little or no information on the structure of the land and housing market, on the number and location of squatter settlements, on the location of State Sugar Council (CEA) lands, and on the amount of CEA lands in urban expansion rings. It is unclear how many informal communities realistically need to be resettled, what is the extent of land registration and how to improve it, and what are the urgent needs for legal and regulatory reforms (rent control reform, for example). Surprisingly, the real volume of construction and residential construction at a share of GDP remains unknown. Not surprisingly, there is inadequate information on the structure and performance of past and present INVI subsidy programs, and on the quality of its mortgage portfolio.

Given their limited range of experiences with the more–enabling housing policy instruments, the institutional capacities (and interests) of the National Housing Institute (INVI), or the National Housing Bank (BNV), in undertaking new housing programs remain unknown. A more precise assessment of the experience, potential and institutional capabilities for urban upgrading is also necessary, as is an assessment of the potential for private-sector and civic-sector participation in progressive housing programs. Further study is needed to articulate new macro-block options for low–cost serviced sites. Finally, the strategic possibilities for reducing mortgage interest rates, for introducing "leasing habitacional," for expanding micro-finance into house extension and improvement, and for embarking on a program of mortgage securitization also require further study. In the absence of more precise information on these critical issues, the conclusions of this preliminary report must necessarily remain tentative.

* * *

To conclude, the preliminary diagnosis of the conditions prevailing in the housing sector in the Dominican Republic and the examination of the status of housing policy in the country suggest that an important window of opportunity for housing policy reform has now opened. A number of guidelines for action on such a reform have been outlined. Housing policy reform in the Dominican Republic is now necessary for increasing the scale, the outreach, and the effectiveness of public action on housing—a key goal of the new Government, and a goal that merits a strong political backing and an adequate budgetary allocation. It is also clearly in line with the housing policy outlook of the Inter–American Development Bank and other multilateral organizations, and its formulation and implementation could, and indeed should, benefit from their support.

ANNEX: A NOTE ON THE INCOME DISTRIBUTION IN THE DOMINICAN REPUBLIC

This note uses household income distribution data from the *1998 National Survey of Household Incomes and Expenditures* [Banco Central, 1999] to calculate the income distributions by deciles as well as the Gini Coefficients for these distributions for the (a) country as a whole, (b) the National district of Santo Domingo, (c) the rest of the urban areas and (d) the rest of rural areas in the country. The Survey provided population and household data for each of five income quintiles in each of the four regions, but only *total* income data for the five income quintiles and for the four regions. The average income for each quintile in each region was calculated by dividing the total income by the total number of households in that quintile [Vol. 3, Annex 2.1, 60]. The average income range for each of the ten deciles for each region was obtained by interpolation and extrapolation from these five values. Extrapolation in particular may result in an under–estimate of household incomes in the highest and lowest income deciles, and thus in an under–estimate of the Gini Coefficient which measures the degree of inequality in the income distribution. Given this important qualification, the results are given in four tables, tables 3 and 4 presented earlier, and table A1 and A2 presented below.

Table A1: Household Income Distribution in the Rest of the Urban Areas, 1998

	(Dominican Pesos)		(US Dollars)	
Decile	From	To	From	To
1st	0	43,718	0	2,857
2nd	43,718	61,921	2,857	4,047
3rd	61,921	74,810	4,047	4,890
4th	74,810	87,699	4,890	5,732
5th	87,699	102,217	5,732	6,681
6th	102,217	121,275	6,681	7,926
7th	121,275	146,063	7,926	9,547
8th	146,063	188,060	9,547	12,292
9th	188,060	306,775	12,292	20,051

10th	306,775+	20,051+

Source: Calculated from Banco Central, 1999. *Encuesta Nacional de Gastos e Ingresos de los Hogares.* RD$15.30 = US$1.00 in 1998.

The household income distribution data for the country as a whole and for the National District were discussed earlier in Section I. The household income distribution data for the rest of the urban areas in the Dominican Republic is given in table A1.

As can be seen from the table, the median annual household income in the rest of the urban areas in the Dominican Republic in 1998 was RD$102,217 (US$6,681), some 5% higher than that of the country as a whole. The Gini Coefficient for this income distribution was calculated from the data to be 0.46, lower than that of the country as a whole in 1998, but higher than that of the National District. The total income earned by 40% of the lowest–income earning households amounted to 17.5% of total income in the District, and the ratio of the total income earned by the highest–income 20% of households to the total income earned by the lowest–income 20% of households was found to be 6.9.

The household income distribution data for the rest of the rural areas in the Dominican Republic is given in table A2.

Table A2: Household Income Distribution in the Rest of the Rural Areas, 1998

	(Dominican Pesos)		(US Dollars)	
Decile	From	To	From	To
1st	24,583	35,082	1,607	2,293
2nd	35,082	45,580	2,293	2,979
3rd	45,580	56,078	2,979	3,665
4th	56,078	66,577	3,665	4,351
5th	66,577	77,960	4,351	5,095
6th	77,960	90,028	5,095	5,884
7th	90,028	106,942	5,884	6,990
8th	106,942	130,915	6,990	8,557
9th	130,915	233,342	8,557	15,251
10th	233,342+		15,251+	

Source: Calculated from Banco Central, 1999. *Encuesta Nacional de Gastos e Ingresos de los Hogares.* RD$15.30 = US$1.00 in 1998.

As can be seen from the table, the median annual household income in the rest of the urban areas in the Dominican Republic in 1998 was RD$77,960 (US$5,095), some 20% lower than that of the country as a whole. The Gini Coefficient for this income distribution was calculated from the data to be 0.54, similar to that of the country as a whole in 1998. The total income earned by 40% of the lowest–income earning households amounted to 17.5% of total income in the District, and the ratio of the total income earned by the highest–income 20% of households to the total income earned by the lowest–income 20% of households was found to be 6.9.

REFERENCES

Angel, Shlomo, 1999. "Housing Policy in Venezuela: Diagnosis and Guidelines for Action," prepared for the Inter–American Development Bank, New York: October.

Angel, Shlomo, 2000a. *Housing Policy Matters: A Global Analysis*, Oxford University Press, New York and Oxford.

Angel, Shlomo, 2000b. "A National Settlement Program for Trinidad and Tobago: The Key to Housing Sector Reform," prepared for the Inter–American Development Bank, New York: November.

Angel, Shlomo, 2000c. "Housing Policies and Programs in Guatemala: Diagnosis, Evaluation and Guidelines for Action," prepared for the Inter–American Development Bank, New York: September.

Angel, Shlomo, 2000d. "Housing Policy and Housing Programs in Panama: Diagnosis and Guidelines for Action," prepared for the Inter–American Development Bank, New York: November.

Angel, Shlomo, 2000e. "Housing Policy in Ecuador: Diagnosis, Priorities and Proposed Programs," prepared for the Inter–American Development Bank, New York: May.

Asociación Popular de Ahorros y Préstamos, 2000. *Memoria Anual 1999*, Santo Domingo.

Banco Ademi, 2000. "Banco Ademi, Informe Trimestral, Enero–Marzo 2000," Santo Domingo.

Banco Central de la República Dominicana, 1999a. *Boletín Trimestral*, Vol. 54, Nos. 10–12, Santo Domingo: December.

Banco Central de la República Dominicana, 1999b. *Encuesta Nacional de Gastos e Ingresos de los Hogares, Octubre 1997 – Septiembre 1998*, Santo Domingo: July.

Banco Central de la República Dominicana, 1999c. *Perfil: Banco Central de la República Dominicana 1999* , Santo Somingo.

Banco Central de la República Dominicana, 2000a. "Informe de Economía Dominicana, Enero–Junio 2000," Santo Domingo: August.

Banco Central de la República Dominicana, 2000b. Website at www.bancocentral. gov.do.

Banco Nacional de la Vivienda (BNV), 1987. *Leyes que Rigen el Sistema Dominicano de Ahorros y Préstamos y Reglamentos para su Aplicación*, Santo Domingo.

Banco Nacional de la Vivienda (BNV), 1998. *Boletín Estadístico Anual del Sistema Dominicano de Ahorros y Préstamos 1998*, Santo Domingo.

Banco Nacional de la Vivienda (BNV), 1999. *Boletín Estadístico sobre la Vivienda 1999,* Santo Domingo: May.

Banco Nacional de la Vivienda (BNV), 2000. "Programa de Viviendas Mínimas, Plan Indicativo 2001–2004," Santo Domingo: September.

Boleat, Mark, and Adrian Coles. 1987. *The Mortgage Market*. London: Allen and Unwin.

Cámara Dominicana de la Construcción (CADOCON), 1997. *Estudio de Demanda Potencial de Viviendas y Solares en la República Dominicana*, Santo Domingo: October.

Centro Nacional de Estudios de la Construcción (CENAC) and Fundación Dominicana de Vivienda Popular (FONDOVIP), n.d. "El Mercado de Edificaciones Urbanas y Déficit Habitacional en República Dominicana: Propuesta Técnica y Económica," Santo Domingo.

Consejo Nacional de Asuntos Urbanos (CONAU), 2000. *Política Nacional de Desarrollo Urbano para los Asentamientos Humanos*, Santo Domingo: June.

Cooperative Housing Foundation (CHF), 1999. "Management of Post–Hurricane Georges Housing Reconstruction Program in the Dominican Republic: Technical Proposal," submitted to the U.S. Agency for International Development (USAID) Dominican Republic, Santo Domingo.

Despradel & Asociados, S.A. (DASA), 2000. "Comportamiento del Sector Construcción," Santo Domingo: June.

El Proyecto DOM96–010, 1997. "Documento de Trabajo: Plan de Vivienda 1997–2010," containing the conclusions and reccomendations of the *Foro Nacional hacia Una Nueva Política para el Sector Vivienda y Asentamientos Humanos en República Dominicana*, Santo Domingo: October 31–November 1, 1996, organized by Instituto Nacional de Vivienda (INVI) and United Nations Development Programme (UNDP), 1996, Santo Domingo: July.

Fondo Nacional de la Vivienda Popular (FONDOVIP), n.d. "Posición de FONDOVIP como Intermediario Financiero/Institucional," Santo Domingo.

Fortuna, José A., 2000. "Notas sobre las Operaciones de la Inmobiliaria del CEA, Consejo Estatal del Azúcar (CEA), Santo Domingo: August.

Fundación Pro–Defensa del Derecho de Propiedad (Fundepro), 2000. "Estudio de Prefactibilitad del Banco Hipotecario de la Tierra," Santo Domingo: May.

Guardia Conte, Laurencio, 2000. Panama Housing Sector Assessment, unpublished report, Panama: October.

Institutional Investor, 2000. "Country Credit Ranking," *Institutional Investor Magazine*, www.iimagazine.com, March.

Instituto Nacional de la Vivienda (INVI), 1983. *Política Nacional de Vivienda*, Versión Preliminar, Informes Técnicos, Serie I: Política, Planes, Programas y Gestión, No. 1, Santo Domingo: January.

Instituto Nacional de la Vivienda (INVI), 1985. *Evaluación: Producción Informal de Viviendas*, Informes Técnicos, Serie III: Prestación de Servicios Habitacionales, No. 2, Santo Domingo: July.

Instituto Nacional de la Vivienda (INVI), 2000a. *Descripción y Funciones de la Institución*, Santo Domingo.

Instituto Nacional de la Vivienda (INVI), 2000b. *Guía de Servicios de la Institución*, Santo Domingo.

Instituto Nacional de la Vivienda (INVI), 2000c. *Lineamientos de Políticas, Estrategias, Programas y Proyectos del Sector Vivienda 1996–2000*, Santo Domingo.

Instituto Nacional de la Vivienda (INVI), 2000d. *Memoria Anual 1999*, Santo Domingo.

Instituto Nacional de la Vivienda (INVI), 2000e. *Programa Bono para la Vivienda*, Santo Domingo.

Instituto Nacional de Vivienda (INVI), 2000f. *Leyes y Decretos que Norman el Sector Vivienda*, Santo Domingo.

Instituto Nacional de Vivienda (INVI) and United Nations Development Programme (UNDP), 1996. *Foro Nacional hacia Una Nueva Política para el Sector Vivienda y Asentamientos Humanos en República Dominicana*, Santo Domingo: October 31–November 1.

Instituto Nacional de Vivienda (INVI), n.d. *Mejoramiento Urbano para Grupos de bajos Ingresos, Seminario Internacional*, Invivienda No. 6, Santo Domingo.

Inter–American Development Bank (IDB), 1997. *República Dominicana: Programa de Modernización de la Jurisdicción de Tierras (DR–0118)*, Informe de Proyecto, Washington D.C.: November.

Inter–American Development Bank (IDB), 2000. Statistical Tables and Graphs, Statistics and Quantitative Analysis Unit, www.iadb.org, Inter–American Development Bank, Washington D.C.

International Monetary Fund (IMF), 1999. "Dominican Republic: Selected Issues," IMF Staff country Report No. 99/117, Washington D.C.: October.

International Monetary Fund (IMF), 2000. *International Financial Statistics*, Washington D.C.: February.

Juaquín, Gerónimo, 2000. *Vivienda 2000: Artículos, Discursos y Conferencias,* Instituto Nacional de la Vivienda (INVI), Santo Domingo.

Kim, Kyung–Hwan. 1997. "Housing Finance and Urban Infrastructure Finance." *Urban Studies* 34 (No.10): 1597–1620.

Moquete, Santiago, n.d. "Historia Inmobiliaria de la República Dominicana," Fundación Pro–Defensa del Derecho de Propiedad (Fundepro), Instituto Nacional de Formación Inmobiliaria, Santo Domingo.

Nogales, Xavier, 1997. "República Dominicana: Establecimiento de un Banco Privado de Segundo Piso," report prepared for the Inter–American Development Bank (IDB), Nogales, Gottret & Asociados, La Paz: August.

Oficina Nacional de Estadística (ONE), 1989. *Censo Nacional de Población y Vivienda 1981*, Santo Domingo: October.

Oficina Nacional de Estadística (ONE), 1998a. *VII Censo Nacional—Resultados Definitivos Total País: Vivienda,* Santo Domingo: March.

Oficina Nacional de Estadística (ONE), 1998b. *VII Censo Nacional—Resultados Definitivos Total País: Población,* Santo Domingo: March.

Oficina Nacional de Estadística (ONE), 2000a. "Construcciones en República Dominicana, Sector Privado—2000," January–June, Santo Domingo.

Oficina Nacional de Estadística (ONE), 2000b. Website, www.estadistica.gov.do, Santo Domingo.

Oficina Nacional de Presupuesto, 2000. *Presupuesto de Ingresos y Ley de Gastos Públicos del Gobierno Central,* Santo Domingo.

Patronato de la Ciudad Colonial de Santo Domingo, 2000. *Estudio de la Ciudad Colonial de Santo Domingo 1999*: *Resumen Ejecutivo*, Santo Domingo.

Renaud, Bertrand and Steven Bernstein, 1997. "Housing Finance in the Dominican Republic and the Banco Nacional de la Vivienda," Contractual Savings and Capital Market Development Project, Housing Finance Reconnaissance Mission, Washinton D.C.: September.

República Dominicana, 1966. *Constitución de la República Dominicana,* Santo Domingo.

República Dominicana, 1962. *Ley No. 5862 que Crea el Instituto Nacional de la Vivienda*, Santo Domingo: 10 Mayo.

República Dominicana, 1962. *Ley No. 5894, Orgánica del Banco Nacional de la Vivienda,* Santo Domingo: 12 Mayo.

República Dominicana, 1998. *Decreto 113–98*, Santo Domingo: 16 March.

República Dominicana, 2000. *Código Civil de la República Dominicana*, tenth edition, Editora Dalis, Santo Domingo.

República Dominicana, n.d. *Leyes y Decretos sobre Control de Alquileres y Desahucios en la República Dominicana*, Santo Domingo.

Reyes, Freddy, 2000. "Expectativas del Sector Privado," paper delivered at the Inter–American Development Bank (IDB) Housing Policy Workshop, Boca Chica: 28 October.

Ruiz, Edwin, 2000. "Que 'CEA' la Tierra en donde Vivir," *Listín Diario*, El Dinero, 6D, Santo Domingo: 29 October.

Superintendencia de Bancos, 1999a. *Boletín Estadístico*, No. 29, Santo Domingo: June.

Superintendencia de Bancos, 1999b. *Boletín Estadístico*, No. 30, Santo Domingo: December.

Transparency International, 1999. "1999 Corruption Perceptions Index", www.transparency.de, Transparency International, Göttingen.

Troncoso, Manuel Cuesta, 2000. "Potencia," paper delivered at the Inter–American Development Bank (IDB) Housing Policy Workshop, Boca Chica: 28 October.

Unidad Ejecutora del Plan Nacional de Titulación, 2000. "Programa de Titulación de Ocupantes Ilegales en Propiedades Urbanas y Rurales del Estado Dominicano," Administración General de Bienes Nacionales, Secretaría del Estado de Finanzas, Santo Domingo: October.

U.S. Department of Housing and Urban Development (HUD), n.d. "Draft Work Plan for the Dominican Republic, Washington D.C.

United Nations Development Programme (UNDP), 1999. *Human Development Report – 1999*, New York.

United Nations, 1998. *World Urbanization Prospects: The 1996 Revision*. Department of Economic and Social Information and Policy Analysis, New York.

Urban Institute, 1996. *Summary of Habitat II Urban Finance Colloquium*. Washington, D.C.: Urban Institute.

Urban Observatory, 2000. *Global Urban Indicators Database*, www.urbanobservstory.org, United Nations Centre for Human Settlements, Nairobi.

Vargas, Juan A., 2000a. Interview at his office by the author, Director General, National Housing Institute (INVI), Santo Domingo: 30 October.

Vargas, Juan A., 2000b. "Potencia," paper delivered at the Inter–American Development Bank (IDB) Housing Policy Workshop, Boca Chica: 28 October.

World Bank, 1993. *Housing: Enabling Markets to Work*.A World Bank Policy Paper. Washington, D.C.: World Bank.

World Bank, 1999a. *World Development Indicators*, Oxford University Press, Washington D.C.

World Bank, 1999b. *World Development Report 1998/9: Knowledge for Development*, Oxford University Press, Washington D.C.

NOTES

1 The 1993 census does not contain data on the number of households. These estimates were obtained by interpolation, using 1981 and 1997 data. Both the 1993 census and the 1998 household survey do not contain data on housing units. Conservative estimates for these numbers were obtained by assuming that the vacancy rates in 1993 and 1998 were half those reported in the 1981 census and using the available data on occupied housing units.

2 Income distribution data in the *1998 National Survey of Household Incomes and Expenditures* [Banco Central, 1999b] is discussed in detail in the Annex.

3 This should partially explain why the National Housing Institute (INVI) has, until recently, employed as many as 1,400 persons. This number has been recently reduced to 800 [Vargas, 2000a].

4 According to recent map measurements by Raul de Moya Español and Associates, the built–up area of Santo Domingo now amounts to 278 km^2. The urban population of Santo Domingo is now of the order of 2.6 million, and therefore the overall density of the city is of the order of 9,500 persons per km^2.

5 Sources: Banco Central, *Informe de la Economía Domincana*, 2000; Banco Central, *Encuesta Nacional de Gastos y Ingresos de los Hogares*, 1999; Superintendencia de Bancos, *Boletín Estadístico No. 30*, 1999; Angel, Shlomo, *Housing Policy Matters: A Global Analysis* ; Carlos Valladares, *Guatemala Housing Sector Assessment* (various sources); Caroline Clarke, "An Overview of the Housing Sector in Guatemala"; Instituto Nacional de Estadística de Guatemala, *Census of 1994.* The figure for Guatemala is for new mortgage credit as a percentage of all new credit issued annually during 1994–1998 (the percentage for 1999 is 4.62); and Laurencio Guardia Conte, "Panama Housing Sector Assessment."

6 1981 estimate calculated from census data.

7 The number quoted is for the average density in the year 2000 in the urban districts of the province of Panamá (Arraiján, La Chorrera, Panamá and San Miguelito). The number in parenthesis is for the district of San Miguelito only.

8 Data for piped water connection in the National District, both inside the house (60.7%) and outside the house (35.8%), for 1998 [Banco Central, 1999, Annex table 5.11, 201].

[9] Defined as the ratio of total expenditures on infrastructure per capita in a given year and the per capita household income. The data given here is for the country as a whole, based on the budget for the year 2000 for the Ministry of Public Works and Communications allocated to roads, maintenance, public transport and telecommunications [Oficina Nacional de Presupusto, 2000, Chapter 211].

[10] The number in parenthesis is the ratio for median income adjusted for under–reporting of incomes..

[11] Ratio of overdue loans to total loan portfolio in Savings and Loans sector [IMF, 1999, 144].

[12] 1981 Census data for the National District.

[13] Decree 339–97, 13 June 1997 [CEA, 2000, 5].

[14] Defined as the ratio between the cost of one m^2 of serviced land on the urban fringe and the median annual household income.

[15] Assuming no loss of housing due to natural disasters.

[16] Interview with the author and Raul de Moya Español, 29 October 2000.

[17] Interview with Francisco Aníbal Gonzáles, President, Asociación Dominicana de Constructores y Promotores de Vivienda (ACOPROVI), 26 October 2000. This estimate agrees, more or less, with the average mortgage loan size of RD$470,000 (US$30,750) in 1998 [BNV, 1998, 37].

[18] The correlation coefficient was found to be 0.48.

[19] Possibly accompanied by fully–transparent one–time subsidy vouchers given to beneficiaries to augment their down payment on a loan.

[20] By the end of 1999, RD$338 million (US$21 million in 1999) were invested by INVI in Invivienda Santo Domingo and 176 units were completed, while RD$96 million (US$6 million in 1999) were invested in Invivienda Santiago and no units were completed [INVI, 2000c, 51].

[21] Interview with the author and Raul de Moya Español, 30 October 2000.

[22] Interview with the author and Raul de Moya Español, 30 October 2000.

[23] The BNV document mistakenly entered 4,800 units at a cost per unit of RD$275,000 and a total of RD$880 million [BNV, 2000, table 3].