

Report No. 22590

Urban Services Delivery and the Poor: The Case of Three Central American Cities

(In Two Volumes) Volume II: City Reports

June 3, 2002

Finance, Private Sector and Infrastructure Department
Central America Country Management Unit
Latin America and the Caribbean Region



CURRENCY EQUIVALENTS

US\$1= 1 Dollar (El Salvador)
US\$1=16.40 Lempiras (Honduras)
US\$1=1 Balboa (Panamá)

FISCAL YEAR

January 1 to December 31 for El Salvador, Honduras and Panamá

ACRONYMS AND ABBREVIATIONS

AMSS:	Metropolitan Area of San Salvador
AMDC:	Tegucigalpa Central District Municipal Government
ANDA:	El Salvador’s National Water Company
ATTT:	Panamá’s Transit and Terrestrial Transport Authority
BNH:	Panamá’s National Mortgage Bank
CAS:	Country Assistance Strategy
CAEES:	El Salvador’s Electricity Company
CDS:	City Development Strategy
COAMSS:	Council of San Salvador’s Metropolitan Area Governments
DGT:	Honduras’s Directorate General of Transport
DIMA:	Panamá’s Direction of Urban Sanitation
ENEE:	Honduras’s National Electricity Company
ENV:	Living Standards Survey (“Encuesta de Niveles de Vida”)
FHIS:	Honduras’s Social Investment Fund
FONAPROVI:	Honduras’s National Fund for Production and Housing
FONAVIPO:	El Salvador’s National Fund for Popular Housing
FOSOVI:	Honduras’s Social Housing Fund
FSV:	El Salvador’s Social Housing Fund
GDP:	Gross domestic product
GIS:	Geographic information system
IDAAN:	Panamá’s National Water Company
IDB:	Inter-American Development Bank
JICA:	Japanese International Cooperation Agency
LSMS:	Living standards measurement survey methodology
MEF:	Panama’s Ministry of Economy and Finance
MIVI:	Panamá’s Housing Ministry
OPAMSS:	Planning Agency of San Salvador’s Metropolitan Area
PCSM:	Panamá City and San Miguelito urban area
PPP:	Purchasing power parity
RAP:	Honduras’s private contribution system
SANAA:	Honduras’s National Water Company
SOPTRAVI:	Honduras’s Secretariat of Public Works, Transport and Housing
USAID:	United States Agency for International Development
VMVDU:	El Salvador’s Vice-Ministry of Housing and Urban Development
VMT:	El Salvador’s Vice-Ministry of Transport
WDI:	World development indicators

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ACKNOWLEDGMENTS

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Funding for this study was provided by the Central America Country Unit (LCC2C), The Cities Alliance Program, the Water and Sanitation Program (EWDAP), and the Land and Real Estate Thematic Group.

**REVIEW OF URBAN SERVICES AND POVERTY IN
THREE CENTRAL AMERICAN CITIES**

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THE CASE OF THREE CENTRAL AMERICAN CITIES**

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FOREWORD

The following reports can be consulted independently. They are structured in a similar way, with a first chapter dealing with general data on urbanization and poverty in the respective country and city, a second analyzing household and neighborhood characteristics of the city, a third covering access to land and shelter, a fourth discussing basic services, and a fifth dealing with urban transport. In the case of Panama City, the report includes only land and housing, basic services and transport, given that the corresponding data come from a different survey that did not measure the same aspects that we assessed in AMSS and Tegucigalpa.

For each service there is a description of the institutional setting, a characterization of service provision, and an analysis of service delivery. The following aspects of service delivery are systematically included: access, time elapsed to get the service, method to acquire the service, quantity, quality, reliability, and payment. There is a strong emphasis on service quality given that in urban areas quality is more the problem than access. In many cases, poor urban households might have what seems to be a high coverage of services, but the quality and reliability are very low.

Service delivery aspects analyzed in the study

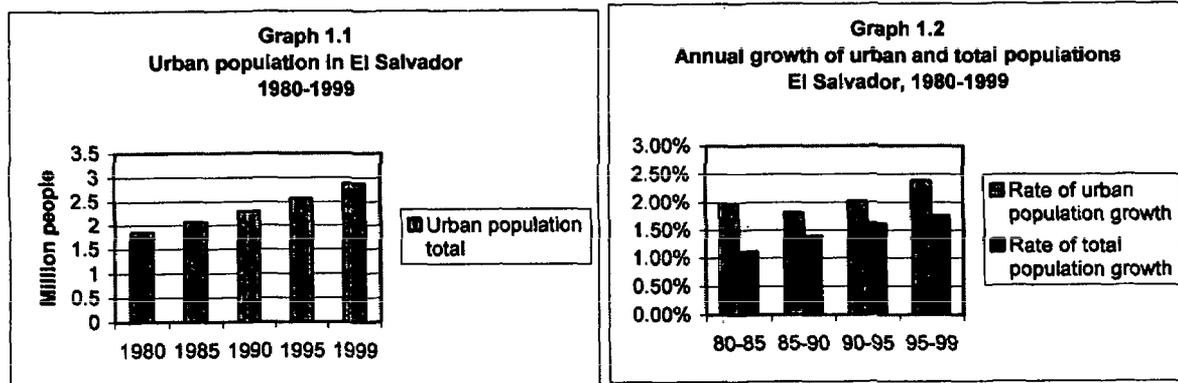
Service aspect	Land and housing	Water, sanitation, street lighting and electricity, solid waste collection, and drainage	Public transport
Access	Tenure type	Connection to public provider	Bus crowding
Time elapsed to get the service	Years of self help housing	Use of alternative sources	NA
Method to acquire the service	Financing	Public vs. private intervention	NA
Quantity	Number of rooms	m ³ or kwh	Trips/week, distance
Quality	Materials, amenities, crowding	Need to boil water, distance to facility, specific problems	Waiting times
Reliability	Tenure security	Hours of continuous service	Safety
Payment	Monthly rent or mortgage	Monthly payment	Fare

Source: Author's compilation, 2001

I. METROPOLITAN AREA OF SAN SALVADOR

1. URBANIZATION AND POVERTY IN EL SALVADOR

1.1 El Salvador is rapidly becoming an urban country (graph 1.1). According to the World Development Indicators, 42% of the population was living in urban areas in 1980, equivalent to 1.9 million people. In 1999 the percentage had increased to 46% or 2.9 million people. This urban population has been growing at higher annual rates than the total population, and in the period 1995-1999 this difference got larger (graph 1.2). There is thus, reason to believe that urbanization will continue at a steady pace in the coming years. In fact, forecasts from the United Nations Population Division show that by 2010 50% of El Salvador's population will be urban.

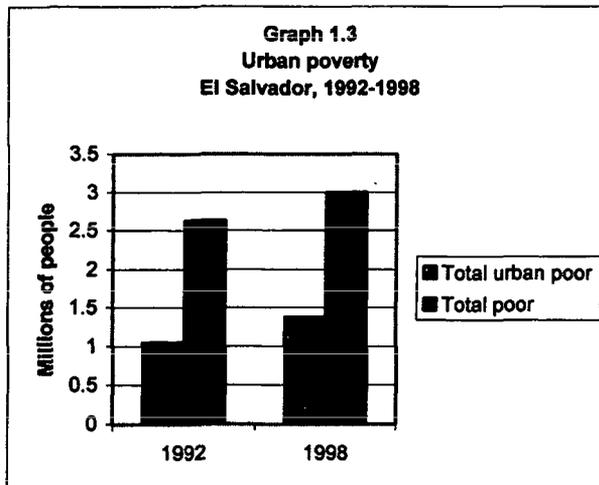


Source: World Bank, various years.

1.2 With 295 people per Km², El Salvador is the smallest and most densely populated country in Central America. In the 1990s, after more than a decade of civil conflict, the country achieved many important successes, among them, establishing participatory democratic processes, keeping a low external debt, implementing a comprehensive privatization program, and maintaining steady economic growth. Its economy has been progressively shifting from agriculture, where the options are limited given the small territory, to manufacturing services. In fact agriculture decreased from 27% of GDP in 1985 to 10% in 1999. On the other hand, maquila and non traditional exports have been booming in the last years, contributing to an increase in the GNP per capita from \$1,570 in 1995 to \$1,920 in 1999.

1.3 The country has been afflicted by several natural disasters, including a major earthquake in 1985, hurricane Mitch in 1998, and two earthquakes in 2001. The 1985 earthquake severely affected the capital city, San Salvador, while hurricane Mitch and the most recent earthquakes have affected more the rural areas. These disasters have aggravated the situation of the poorest Salvadorans and have shown that the country is highly vulnerable.

1.4 The civil conflict cost some 75,000 lives and left thousands of people displaced, orphaned or disabled. It also caused a massive migration, mainly to the US, with about one in five Salvadorans living abroad by the end of the century. Remittances became a very important source of income for the country, stimulating internal consumption, but causing, at the same time a "Dutch disease".



Source: World Bank, 1994; World Bank various years; and Trigueros et. al, 2000.

1.5 Although poverty is still more of a rural phenomenon in El Salvador, this trend is reversing as more migration to urban areas takes place due to the decline of agriculture, and more recently, to natural disasters. While in 1992 urban areas housed 40% of the country's poor, in 1998 this percentage increased to 46%. In absolute numbers, 1.38 million poor lived in urban areas in 1998. What is remarkable is that most of the growth in total poverty in El Salvador in the period 1992-1998, comes from the growth of urban poverty (92%) (graph 1.3).

1.6 The largest urban area in the country is centered in the capital city, San Salvador and thirteen surrounding municipalities that form its metropolitan area (AMSS). The civil conflict produced major population shifts toward the AMSS and secondary cities. According to the 1971 and 1992 census figures, AMSS grew at an annual average rate of 4% between 1971 and 1992. Much of this growth was captured by Soyapango and Apopa which experienced average annual growth rates of 13% and 15%, respectively, mostly due to a combination of access to industrial employment centers and relative low land values. Since then the AMSS has grown from 1.4 million in 1992 to almost 2 million people in 1999, making up close to 70% of the total urban population and 32% of the country's population¹. The urban agglomeration continues to grow mostly to the north in Apopa, Nejapa, and Tonacatepeque, to the east in San Martin, to the West in the corridor to Sonsonate, and to the south on the road to the new airport (map 1.1).

1.7 According to the Universidad Centroamericana, the poverty level in AMSS was about 23% in 1998², which is equivalent to 15% of El Salvador's poor, a very high concentration of poor in one continuous geographic area. The welfare measure calculated for this study, total consumption per capita per year, yields the following results for the AMSS:

¹ Data on total population and urban population in El Salvador comes from the World Development Indicators. The number for the AMSS's population is a forecast commonly used by different agencies.

² Their welfare measure is income and the basic food basket in urban areas is \$287 per family per month. This poverty level is very conservative as \$287 per family per month is barely \$2 per capita per day, which is not really sufficient to satisfy basic needs.

Total consumption per capita per year (dollars)

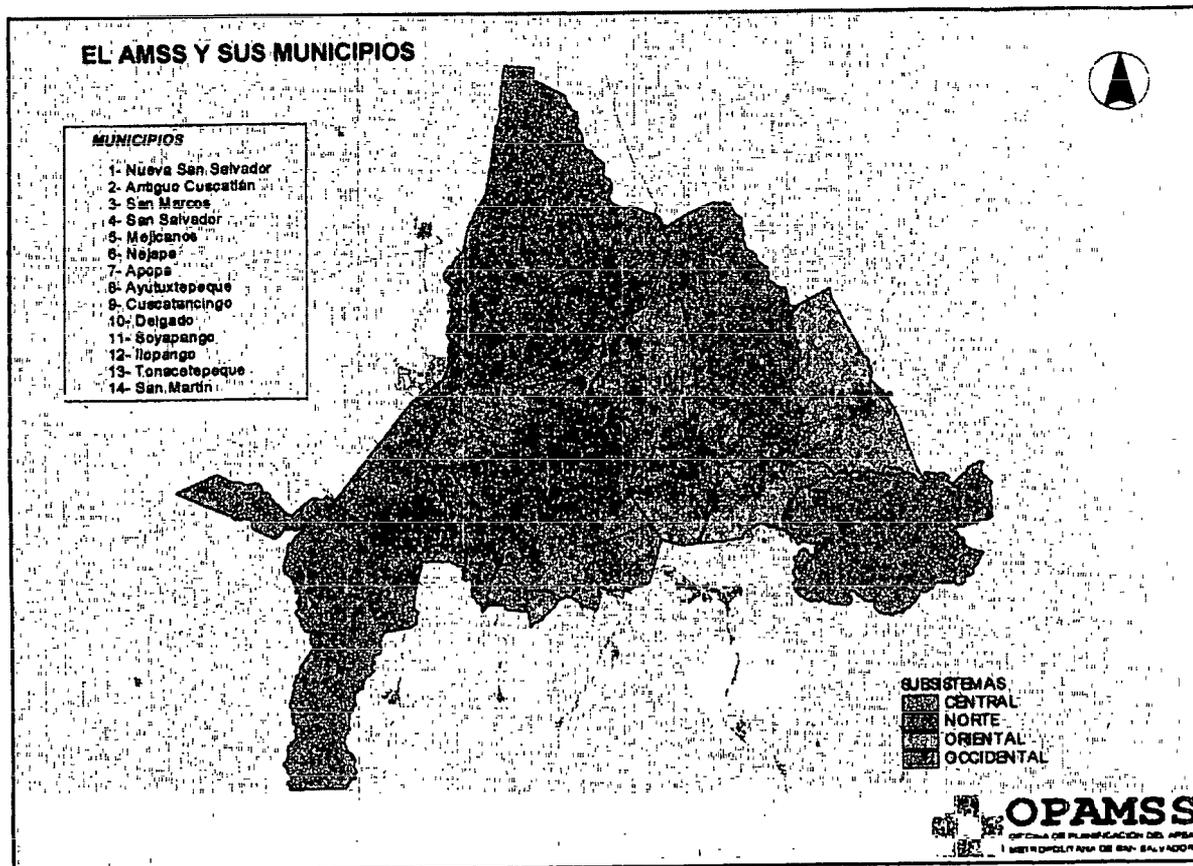
Minimum	\$ 135
Maximum	\$9,413
Mean	\$2,086

Population under different levels of consumption

% under 1 dollar/capita/day	2.4%
% under 2 dollar/capita/day	13.8%
% under 3 dollar/capita/day	28.3%

1.8 On average, AMSS citizens live on \$5.7 per capita per day, with the poorest having to survive on 37 cents per capita per day and the richest consuming \$26 per capita per day. Almost 30% of the population lives on \$3 per day.

Map 1.1. San Salvador Metropolitan Area



Source: OPAMSS

2. HOUSEHOLD AND NEIGHBORHOOD CHARACTERISTICS IN AMSS

2.1 This chapter describes the living conditions of households in AMSS and their perceptions about the neighborhoods they live in. The data show that poor households are very disadvantaged in terms of household size and growth, in-city mobility, education levels, and participation in the labor market. At the neighborhood level, though, problems are similar across consumption groups, violence being the most important, followed by water and solid waste collection services.

A. Household migration, growth, and mobility

2.2 A considerable percentage of the poor formed their households in other regions of the country and then moved to AMSS (21%). This percentage is slightly lower for the well to do households (17%), but is overall high in all quintiles. A good portion of this migration is due to the civil conflict, which affected all socio-economic groups, mostly in rural areas. When asked the reason for choosing the neighborhood where they live in, the driving factor for poor households is "land price", which in this context should be interpreted as land availability (46%), and is a natural response to their financial constraints. Since the poor depend more on their communities to solve common problems, the existence of friends in certain neighborhoods is another important reason to decide where to live (27%) (table 2.1).

Table 2.1. Household characteristics by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Place of hhld formation						
- % in AMSS	79	84	82	81	83	82
- % out of AMSS	21	16	18	19	17	18
Reasons for choosing neighborhood:						
- % choosing based on location of friends	27	25	23	20	15	22
- % choosing based on house location	12	21	32	38	44	29
- % choosing based on land price	46	42	38	39	36	40
Household size (number of members)	5.7	4.7	4.3	3.8	3.4	4.4
Household size growth						
- % hhlds that increased in last year	19	14	13	10	7	13
* Birth	80	83	75	79	76	79
* Other people joining	20	17	25	21	24	21
- % hhlds that decreased in last year	8	13	13	10	10	11
% hhlds with firm intentions to leave in next year	6	6	6	9	9	7

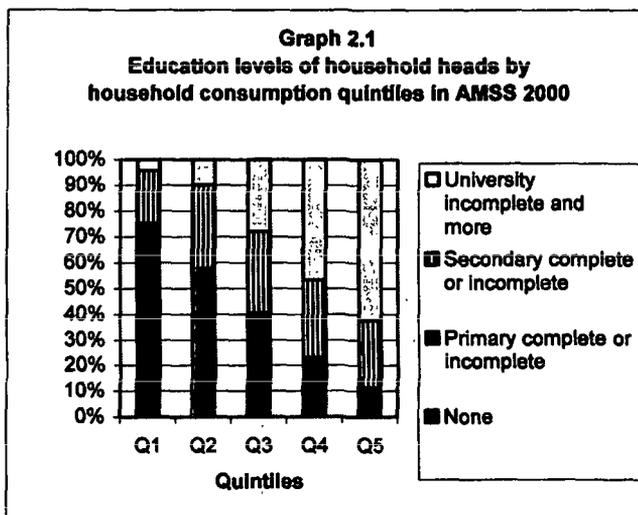
Source: World Bank, 2001.

2.3 Poor households are larger and expanding faster than wealthy ones. First, household size is significantly larger in the first quintile than in the fifth (5.7 versus 3.4). Second, more poor households reported growth of their family units than did the wealthy (19% versus 7%). The composition of growth, though, does not vary much by consumption group and is due mostly to the birth of a baby (79%) and secondly to other people joining the household (21%). Combining the percentage of households that reported growth with those that reported birth of a baby, it is possible to infer a birth rate of 15% in the first quintile versus a rate of 5% in the last quintile. This means that natural growth among the poor is going at a rate that is three times that of the rich, an important consideration for policy purposes.

2.4 The poor seem less mobile within the city than the rich, at least in the short run. Only 6% of poor households have firm intentions to move in the next year, whereas 9% of the wealthy households plan to do so. This might be linked to the fact that the poorest families do not have property titles (see next chapter) and therefore would have a hard time selling their properties.

B. Education and occupation

2.5 The poor in AMSS have very low levels of education (graph 2.1). In the first quintile, most of the household heads have no education or an incomplete primary education (75%). By contrast, in the fifth quintile the majority of the household heads have at least incomplete university education (62%). The graph shows very clearly that education certainly matters in the determination of who is poor. In fact, exploratory regressions confirm that education is a significant factor in explaining variation of the welfare measure.



Source: World Bank, 2001.

2.6 A significant percentage of poor household heads do not participate in the labor market (33%), many of whom stay at home to take care of their families (22%) and some are unemployed or do nothing (8%) (table 2.2). Among the wealthy the picture is different. The majority work: 81%, and a considerable percentage, 9%, is retired. Unemployment and household activities have very small shares in the case of wealthy households. These results are linked to the fact that among the poor there is a higher rate of female headed households (39%) than among the rich (24%).

2.7 Working conditions are very tough for the poorest AMSS citizens. First, a large percentage is self-employed (37%), which is associated with greater job insecurity, less benefits and no affiliation to the social security system (42%). Second, many poor workers work part time (21%) and very few have secondary jobs (4%). The situation of the wealthy is better with a smaller percentage self employed (23%), more people working full time (88%), more people affiliated to the social security system (77%) and a considerable percentage having secondary jobs (13%).

2.8 A significant portion of the poor work in their neighborhoods or even in their own houses (18%). For these people their neighborhoods are very important since they spend most of their time there. This also gives a different character to poor communities, which tend to be more self-contained micro-cities.

Table 2.2. Employment characteristics by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Main occupation of hhld head						
- % whose main occupation is household management	22	17	12	7	7	13
- % whose main occupation is to study	0.4	0.4	0.77	1.0	0.7	0.6
- % whose main occupation is to work	67	72	1	74	81	73
- % who are retired	3	7	12	13	9	9
- % unemployed	8	3	5	3	1	4
- % doing nothing	0.4	0.8	0	1.4	1.4	0.8
Type of employment (all employed members)						
- % who are managers	1	1	3	4	7	4
- % who are employees	62	67	70	70	70	68
- % who are self employed	37	31	27	25	23	28.
- % who work with no remuneration	0.6	0	0.2	0.9	0.4	0.4
Conditions of employment (all employed members):						
- % working full time	79	80	83	85	88	83
- % affiliated to SS	43	52	63	67	77	61
- % with secondary job	4	7	10	9	13	8
Job location (all employed members):						
- % working in house	10	11	10	9	7	9
- % working in neighborhood, but not in house	8	7	3	4	4	5
- % working in city, but not in neighborhood	56	54	58	62	64	59
- % working in different city (most within AMSS)	26	29	30	26	26	27

Source: World Bank, 2001.

C. Neighborhood characteristics

2.9 There is full consensus across quintiles on the most important problems in neighborhoods: violence is first with a 37% share, water provision is second, with a 14% share and solid waste collection comes in third with a share of 11% (table 2.3). Violence seems to be a more important problem for the well to do households than for the poor, but surprisingly, water provision is felt as much a problem among well-to-do and poor. Solid waste collection, although also a generalized problem, seems to affect more the poorest households. When reviewing the results by gender of the respondent no difference is found: the same three problems are the most important ones and with similar percentages.

2.10 Neighborhoods, across all quintiles, are very stable, with households living there, on average 15 years³. This factor contributes to making them cohesive with relatively high levels of community participation. Participation is by far highest in the catholic church: 31%, followed by other churches: 23%. Community improvement committees get a 15% share and sports and cultural groups get a 7% share⁴. The only noticeable difference across quintiles is that the catholic church gets higher participation in the fifth quintile: 41% than in the first quintile: 24%. It seems as if other churches are gaining more popularity among the poor. When asked which organizations have helped the most in solving community problems, community improvement committees are the winners, with a 28% positive response rate, and

³ In the first quintile the distribution is: (0-5 years): 15.2%; (5-10 years): 18.2%; (10-15 years): 20.4%; (15+): 46.2%

⁴ For comparison, participation rates in community organizations go from 8.3% to 9.6% throughout income quintiles in Cali, Colombia, according to a recent World Bank study.

this trend is stronger in the lower quintiles. In spite of uneven participation in the catholic church, approximately 16% of the households in all quintiles report that it has helped significantly.

Table 2.3. Neighborhood characteristics by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Most important problem						
- % reporting violence as most important problem	29	34	36	41	43	37
- % reporting water provision as most important problem	13	12	13	14	18	14
- % reporting solid waste collection as most important problem	10	9	19	10	6	11
Time living in neighborhood (years)	16	16	16	14	13	15
Organizations in which household participation is frequent						
- % who participate frequently in catholic church activities	24	22	33	33	41	31
- % who participate in other churches activities	26	30	22	21	16	23
- % who participate in community improvement committees	20	11	13	16	13	15
- % who participate in sports or cultural groups	10	7	6	7	3	7
Organizations that have helped significantly in solving community problems:						
- % who think the Catholic church has helped significantly	13	18	17	13	17	16
- % who think other churches have helped significantly	8	11	8	6	5	7
- % who think comm. improvt. committees have helped significantly	35	32	24	26	23	28
- % who think sports or cultural groups have helped significantly	4	6	4	5	2	4

Source: World Bank, 2001.

3. LAND AND HOUSING

3.1 In comparison with neighboring capital cities, access to land and housing by AMSS's poor has been easier. This is in part due to the relative flexibility of land regulation, the supply of housing to the poorest through NGO programs and active informal land developers, and a generalized positive attitude in different government instances toward legalization of land tenure. In spite of these positive aspects, the poor still face many problems, among them, high levels of property insecurity, low housing quality, very high crowding rates, and no access to formal housing finance. The chapter is organized as follows: in a first section the institutional setting is described, in the second the structure of land and housing supply is explored, the third section summarizes the most important financing issues, and in the last section the results of the household survey are discussed.

A. Institutional setting

3.2 Land and housing are very dynamic sectors in El Salvador, undergoing several reforms at the moment. Agencies at the national and local levels, and NGOs, among others, participate actively in setting up the institutional framework for these sectors.

3.3 A new and broad based housing policy for the country was announced in October, 2000 by the Vice Ministry of Housing and Urban Development (VMVDU). It includes: market-based financing, subsidies targeted to low income families, legalization of all informal land subdivisions, certification of informal developers, no government supplied housing, and greater municipal control over housing regulation. These goals clearly make a sharp break with earlier approaches that tended to ignore the issues of land titling and informal development, two crucial aspects for the poor. To achieve its new policy, the VMVDU will continue to set policies, financing limits and housing standards for units built for middle and lower-income levels in the entire country, and will strengthen its Human Settlements Unit in charge of creating and managing shelter projects directed to the poorest, including land titling and urban upgrading programs.

3.4 Since the two earthquakes of 2001, the VMVDU has centered its attention to the reconstruction of the 115,000 housing units destroyed or damaged nation wide, including the redirection of the housing subsidies program for those affected. It has also been involved in the resettlement of squatters in the most vulnerable ravines subject to land slides and flooding in the AMSS.

3.5 Real property recording and registration, a key aspect of real estate markets, will greatly improve in El Salvador once the National Registry Center (CNR), created in 1994, completes its long-term project of creating an up-to-date, self-sustaining, digitalized, efficient, transparent, and integrated cadastre and registry system for some 1.6 million parcels in the country. So far the project, financed in part by the World Bank, has covered the department of Sonsonate and is working in Santa Ana and Ahuachapan. The CNR is aiming to cover the 200 km² of AMSS starting at the end of 2001 with a cost of \$16 million, solving the present backlogs and inefficiencies of the San Salvador Registry and Cadastre.

3.6 There is great interest in improving land tenure security in the AMSS. The Instituto de Libertad y Progreso (ILP), for instance, is effectively an informal land-titling institute partly inspired on the writings of Peruvian Hernando de Soto. The main contribution has been the efficient titling of land plots in the informal sector, be they invasions or sub-divisions. In 1998 it assisted 5,200 families in the entire country in the legalization of their properties at a price of \$92-132 per title. ILP works with large groups of families at a time, under so called "titling projects". Each project takes more than a year to complete. ILP is trying to speed up the process and make it cheaper by subcontracting with the private sector and NGOs.

3.7 Except for the capital city, municipal governments in AMSS have had little influence on land and housing. This is in part due to limited resources and staff, but also to the fact that there is no property tax in El Salvador and therefore land management and land information (cadastre) for fiscal purposes are irrelevant. In addition, there is still a high level of centralization in the country, resulting in few local government responsibilities, basically management of public markets, organization of public parking, functioning of slaughter houses, street cleaning, and solid waste collection. The Municipality of San Salvador is the only local government in AMSS that has projects dealing with land and infrastructure issues, including urban upgrading, the renewal of downtown areas, and the city's cadastre updating.

3.8 The mayors of San Salvador and surrounding municipalities have understood the importance of metropolitan planning, creating in 1988 the Council of Metropolitan Area Governments (COAMSS). The Council meets weekly to share common problems, to discuss issues of metropolitan impact, adopt policies, and determine combined needs for technical assistance. The latter are channelled through the Metropolitan Planning Agency (OPAMSS), a unique organisation in Central America, dealing with urban planning and development in the metropolitan area. It is financed with building and subdivision permit fees. OPAMSS provides municipalities with information, GIS technology, and analytical support in their planning activities. It is also in charge of rationalizing the delivery of metropolitan services that lend themselves to economies of scale. For the moment it fulfills this function only in solid waste disposal (a JICA financed study is being completed), but in the future, perhaps drainage and transport.

3.9 Land regulation in AMSS has been simplified since the creation of OPAMSS, but still has a long way to go to become more flexible and responsive to market changes. In fact, constructors and developers complain about the amount of regulations that they must comply with, including OPAMSS's and those of ministries and utility companies. They claim that more than 80 laws and regulations seem to apply, though not simultaneously, with a final approval taking many months to become effective, and a consequent increase in the cost of housing of 5%. In addition these regulations are not published in a single manual, creating confusion and additional delays. VMVDU, with support of the Construction Chamber, has proposed the creation of a single authority to deal with subdivision and construction regulations, the so called "ventanilla única".

B. Provision of land and housing

3.10 The VMVDU estimates that in 1999 the quantitative housing deficit in AMSS was of 12,896 units, and the qualitative deficit 46,074 units. This result shows that more than new housing what is required in AMSS is the upgrading of existing neighborhoods that lack basic infrastructure.

3.11 The formal housing sector does not serve the poorest of AMSS residents. There are more than 300 formal developers who buy land, urbanize it, and construct housing units. A dozen of these developers are large firms, with the majority being small businesses. Their lowest market segment corresponds to middle-low income units that sell in the range \$6,000 to \$9,000. Two minimum salaries are necessary to afford this type of housing. The developers' main constraint to cost reductions are the cost and availability of water supply, lengthy procedures for sub-division permits and lack of long-term financing. The annual production of housing in this segment was of 1,300 units in 1999, down from a peak of 2,800 units in 1994. In general, the formal housing sector is going through a national crisis due to the economic slump of the last years, with a stock of over 20,000 units, in all price ranges, unsold. The bulk of these are in AMSS.

3.12 Housing NGOs have been effective at providing shelter options to the very poor, but in a small scale basis. They have low-scale housing projects for either building new housing, rehabilitating the existing stock, or improving related infrastructure. These NGOs mobilize funding from foreign donors and international churches, and from the National Fund for Popular Housing (FONAVIPO). The latter

source is explained in more detail in the final section. These funds are used to initiate project construction, to grant technical assistance to clients (families or communities) and to pay the administration of the programs. The families who enter the programs are generally below two minimum salaries. They are granted preferential short-term credits and occasionally subsidies. Repayment rates are high, allowing the continuation of the programs. Annual production of housing units by NGOs in AMSS is estimated at 1,500. While the impact of these NGO programs has been small in terms of numbers of households, it has been greater in terms of demonstrating that access to housing by low income families is possible and that good cost recovery practices are key to sustainability.

3.13 El Salvador has a unique and extremely proactive informal land market. The Constitution of 1998 for the first time separated the concept of legal tenure from provision of basic services. In most other countries of Latin America urban land can not be legally subdivided and sold for housing purposes without first meeting requirements for provision of standard basic services. The same legal concept prevents provision of public services to land which has not been legally titled, leading to a vicious circle in which homeowners cannot get legal title to their property for lack of services, and cannot get services for lack of legal title. El Salvador has moved beyond this and a very active informal land subdivision market has emerged. Informal land sub-dividers or “lotificadores” buy large estates mostly in rural areas and subdivide them in small lots that they sell to the poorest population under a leasehold agreement. These lots do not have any service or infrastructure and do not comply with subdivision regulations. Lots cost on average \$1,400, a price affordable at one minimum salary. The conditions are very favorable: no interest and no down payment. Nation-wide, there are some 150 land sub-dividers in rural areas, four of whom dominate the market. Although they operate mostly in rural areas, they cover some of the municipalities in AMSS. Besides, they have sold many lots in the past that are now entire neighborhoods in the AMSS. It is difficult to quantify the supply of these informal developers as their operations go unrecorded in the formal system. The largest of the informal land sub-dividers provides general financing to its clients that can be used for housing construction and improvement. This is done through the use of a sort of credit card backed up and insured by the company. The interest rate is 30% per year, which is quite high, and the debt is guaranteed by the lot, which carries a high risk.

C. Housing finance

3.14 The Social Housing Fund (FSV), the main source of housing finance in the country, does not benefit the poorest. FSV offers housing credits to employees affiliated to the Pension Fund System. FSV used to obtain its resources through a deduction in each affiliated employee’s salary, matched by the employer’s contribution. With the privatization of the pension system in 1998, it is now the private retirement funds that directly have to invest in FSV. FSV offers loans for buying new housing, purchasing used housing, constructing, housing improvement, and lot and service acquisition. The loans have interest rates of around 9% and terms of 15-25 years. The number of families benefited from the credit program has varied from 8,200 families in 1997 (\$9.9 million) to 3,800 families in 1999 (\$10.1million). Most of these families fall in the poor to middle income category, with 2-3 minimum salaries. People working in the informal sector are, of course, excluded from the system.

3.15 The National Fund for Popular Housing (FONAVIPO), does not target the poorest families. FONAVIPO, a targeted subsidy program, is implemented through authorized intermediary institutions such as NGOs, banks, developers, and financial institutions. FONAVIPO, before dollarization, faced several difficulties, among others: high interest rate, which makes the program unattractive for the best positioned financial intermediaries, high risk level of the remaining intermediary agencies, notably NGOs and developers, all of which translate in even higher interest rates for the end users of the program. As a consequence, the programs financed by FONAVIPO are unreachable for families having less than two minimum salaries. This in turn, has resulted in a low volume of operations and a deficient cash flow:

while in 1997 FONAVIPO assisted 6,200 families (\$9.1 million), in 1999 it only served 1,500 families (\$1.1 million).

D. Results of the household survey concerning land and housing

3.16 Although exclusive property occupation is the most common occurrence among the poor, some 8% of poor households have to share their houses with others (table 3.1). This usually happens in old houses in the city center, called “mesones”, where new and young immigrants usually settle. Each family has a bedroom and shares all the services and common areas. According to experts, these families, once they start growing, find it more and more difficult to occupy such small spaces, until they decide to move elsewhere, usually to a new land invasion.

Table 3.1. Tenure status by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% in exclusive occupation	92	93	96	97	99	95
Tenure						
- % who rent	13	12	15	17	18	15
- % who have a leasehold	28	27	24	25	21	25
- % who own with mortgage	1	3	3	4	6	3
- % who own and have fully paid	39	48	53	53	55	50
- % who are informal	19	10	4	2	0	7
Documents (only for property owners)						
- % with registered title	48	72	82	93	95	79
- % with unregistered title	8	6	7	3	1	5
- % with leasehold doc.	2	0	0	0	0	1
- % with property tax receipts	2	1	1	0	1	1
- % with service receipts	1	2	2	1	0	1
- % with no documentation	37	18	8	3	2	14
Reason for not having document (only for those who have weak documentation or none)						
- % declaring that procedure is time consuming and costly	20	27	NA	NA	NA	27
- % declaring informal/illegal tenure	66	43	NA	NA	NA	53
If there is title, to whom is it registered						
- % hhlds having the title registered under couple	11	11	14	20	26	17
- % hhlds having the title registered under female head of hhld	34	33	32	30	19	29
- % hhlds having the title registered under male head of hhld	27	25	35	32	37	32

Source: World Bank, 2001.

Note: NA= not enough observations

3.17 A low percentage of the poor declared living under informal tenure (19%), but this is most probably an under estimate since many of the households reporting being property owners have weak or

no documentation to prove their alleged ownership (52%)⁵. Leasehold, a unique option in El Salvador turns out to be an important alternative for the poorest families (28%). Under this scheme families, without disbursing a down payment, pay a monthly fee for a number of years and eventually get to own the property fully at the end of the lease period, when title is handed in. Informal developers use this option extensively. Due to the lack of regulation, there have been cases in which leaseholders have tried to sell their portion of the lease without success, losing years of investment, and others in which informal developers have mortgaged already leased properties to third parties.

3.18 Of those poor households with no title, the majority does not seem to have tried to legalize their tenure (63%), since they give as reason for their situation “being informal” as opposed to “procedure is time consuming and costly”. A reason why households do not necessarily seek legalization as a priority is that in AMSS there has not been a history of forced slum removal. But this situation might change as land becomes more and more scarce. When there is a title, among the poor, it is registered more often under the female head of household (33%). This is related to the fact that in the first quintile there is also a high rate of households headed by women (39%). A relatively low percentage of titles is registered under the couple in the first quintile (13%) compared to the figure in the fifth quintile (24%).

Table 3.2. Housing characteristics and monthly payment by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Type of street						
- % houses located on streets with no direct vehicular access	73	58	37	30	17	43
- % houses located in non asphalted streets	22	13	4	4	0	9
% houses with walls made of non- permanent materials	8	4	1	0	0	3
Number of bedrooms (#)	1.7	2.1	2.6	2.8	3.1	2.4
# persons/bedroom	4	3	2	2	1	2
% having to shower in backyard or outside of property	31	18	8	6	2	13
% sharing the shower with neighbors	6	2	2	1	0	2
% sharing the bathroom with neighbors	7	4	2	3	1	3
Payment for property (only renters)						
- Monthly payment in dollars	33	60	127	187	287	140
- % paying in non monetary form	24	16	7	4	1	11

Source: World Bank, 2001

3.19 Although the houses of the poor are, in general, made of permanent materials (92%), most lack direct vehicular access (73%) (table 3.2). In addition, a significant percentage of the streets where the poor live are not asphalted (22%). These factors make difficult the operation of urban services such as solid waste collection and street cleaning. There is a very high degree of crowding among poor households, with, on average, 4 persons sleeping in the same bedroom. Crowding is almost four times as high in poor houses than in well to do houses. This is a serious problem as crowding is related to hygiene

⁵ The total percentage of poor who are informal can be deduced as follows: 52% (with weak documentation) * 40% (percentage of property owners) + 19% (informal)= 40% If leasehold is considered an insecure option, the percentage climbs to 68%. In the entire city the figures, using the same approach, would be 18% and 43%.

and health problems as well as promiscuity. On the other hand, as many as 25,000 poor families (31%) have to shower in the backyard or outside the property, with reduced privacy and questionable hygiene conditions. A small but nevertheless considerable percentage of the poor share their showers (6%) and bathrooms (7%).

3.20 The wealthy pay as much as 9 times what the poor pay in monthly rent, which is slightly higher than the average differentials in consumption (1:7) (table 3.3). The average rent in the first quintile is \$33 per month. A high 22% of the poor households who rent reported paying in a non-monetary way, another possible indication of informality.

3.21 The poor divide their lots much more often than do the wealthy (11% versus 1%), and the most important reason to do so is to give a portion of the land to a family member, usually a son or daughter (table 3.3). Altogether 6% of all households declared subdividing their lots in the last five years, which means that some 4,800 properties are subdivided every year, adding to the backlogs of the cadastre and registry systems.

Table 3.3. Property subdivision and improvements by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
- % hhlds having subdivided their lot in last five years	11	9	4	4	1	6
Reasons for subdividing:						
- % subdividing to give to a family member	78	100	NA	NA	NA	87
- % subdividing to sell or rent	22	0	NA	NA	NA	11
Conditions of property when moved :						
- % with no construction or partial construction	64	58	35	23	13	38
- Years to finish the construction	4	6	7	5	10	6
Main house improvement in the last five years:						
- % with no improvement	66	57	52	53	48	55
- % who increased the floor area	12	13	15	17	18	15
- % who did internal improvements	10	16	19	17	22	17
- % who did external improvements	10	11	12	12	11	11
Amount spent on house improvements in last five years (dollars)	700	1,100	2,472	2,120	3,808	2,181
Source of financing for improvements						
- % hhlds using savings	63	66	64	61	72	65
- % hhlds using loans from public institution	4	6	5	5	4	5
- % hhlds using loans from private bank	12	10	14	25	18	16
- % hhlds using help from family/friends	11	8	7	4	3	6
- % hhlds using loans from employer	2	6	2	0	0	2
- % hhlds using other sources	8	4	8	5	3	5

Source: World Bank, 2001.

3.22 In most cases the poor start with a lot and either no construction or a partial construction: 64% of the poorest households reported this situation versus only 13% of the wealthiest households. Poor households took, on average, 4 years to finish their houses. In the last five years, when already well established, few of the poor households invested in improving their properties (32%), although those who

did, invested considerable amounts of money. Improvements were distributed evenly in increasing the floor area and improving internal conditions. The cost of these improvements over a 5 year period, as reported by respondents, go from \$700, on average, in the first quintile, to \$3,808 in the fifth quintile. Although there is a significant difference between these numbers, it is interesting to note that the poor do invest in home improvements and the amount is considerable, in relative terms.

3.23 As for the sources to finance these improvements, the most important across quintiles, by far, is personal savings, used by 65% of the households interviewed, and a remarkable second is loans from private banks, with an 16% response rate. Among the poor, help from family and friends is an important third source, with a 11% response rate. Not surprisingly given the discussions on housing finance in the previous section, loans from public institutions are not an important source for the poor.

4. BASIC SERVICES

4.1 Although access to basic services in the AMSS has improved over the last years, quality, service acquisition, and affordability, especially for the poorest, remain a serious problem. Institutional issues lie behind these problems. This chapter covers the institutional setting, access, quality, and pricing of water and sanitation, electricity, solid waste collection, and drainage.

A. Water and sanitation

4.2 The institutional setting for water and sanitation in the AMSS centers around the national water and sanitation agency, ANDA (Administración Nacional de Agua y Alcantarillado), which owns and operates aqueducts in 182 municipalities and sanitary sewers in 82. Judging from its investment pattern of the past five years, ANDA's main concern has been reconstruction of the national water and sanitation systems destroyed in the war, outside of San Salvador, with 35% of total investment. During this period, San Salvador benefited from two loans, for a total of 27% of investment.

4.3 One of the main problems of the water sector in El Salvador is the lack of a regulatory body to oversee the operation of ANDA and other smaller providers as well as set tariffs and control quality of service. Another problem is ANDA's weak financial and managerial situation, particularly the lack of resources for investment, which affects in a disproportionate way the growing poor population, and a deficient cost recovery. That is why since the conclusion of the civil war, El Salvador has been weighing a program of institutional reform involving ANDA's break-up into municipally-managed water and sanitation companies, and its possible privatization.

4.4 Although access to piped water has greatly improved in AMSS over the last ten years, 18% of the poorest households, equivalent to some 14,000 families, still lack the service. The household surveys show access to ANDA's services that go from 82% in the first quintile to 97% in the fifth quintile, (table 4.1). Private operators are serving all socio-economic groups at 3%, with a slightly higher percentage in the first quintile, of 4%. Of the remaining sources, bottled water is a complementary source for all groups, but particularly for the wealthier. The standpipe is an alternative for the poorest with a 10% access rate. Refer to Annex 3 for a comparison of access indicators in different Latin American cities.

4.5 The poor have to wait longer and incur in extra costs to get a water connection. First, a considerable percentage of the poorest families had to wait more than five years, after settling in, to obtain a water connection (30%). Only 8% of the well to do were in a similar situation. Second, the majority of poor families attribute their connections to community action (60%), while the majority of wealthier families point to private developers (73%). Across all quintiles government action rated extremely poorly, mentioned by only 2% of the families interviewed. Third, the poor paid more for the installation, and this is related to the fact that many of them got connected through special programs after they were already living in their properties for some years. On the other hand, the well-to-do families pay part of this cost when they buy their properties.

4.6 Although ANDA's coverage per se is relatively high, the quality of the water service is not. ANDA confirms that few areas within metropolitan San Salvador enjoy 24 hour per day service. Eight hours per day is standard in Soyapango, Ilopango, and San Marcos while San Martin, Apopa, Nejapa and Tonacatepeque regularly receive far less. The household survey confirms that, of those connected to ANDA, 45% have a coverage of less than 24 hours per day, and 24% receive water for less than 8 hours per day, and this result is rather uniform across quintiles.

Table 4.1. Water services by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Access ⁶ :						
- % hhlds with access to ANDA	82	89	95	96	97	92
- % hhlds with access to private operator	4	3	2	1	2	3
- % hhlds using public/private truck	3	2	3	1	0	2
- % hhlds using bottles	16	33	55	71	77	50
- % hhlds using standpipes	10	4	1	1	0	3
% who had to wait more than 5 years to get service (ANDA only):	30	29	25	16	8	21
How was the service acquired (ANDA only):						
- % hhlds acquiring service through personal action	21	18	29	28	19	23
- % hhlds acquiring service through communal action	60	50	20	13	2	29
- % hhlds acquiring service through government action	3	1	4	1	3	2
- % hhlds acquiring service through developer	13	25	44	57	73	42
Amount paid for installation (ANDA only) (dollars)	72	86	46	34	29	53
Hours of continuous water service (ANDA only) :						
- % with less than 8 hours	23	21	30	25	28	24
- % with less than 24 hours	32	40	50	50	52	45
% who drink ANDA's water without boiling :	72	64	48	26	28	47
m ³ of consumption per month per hhld (only for ANDA) ⁷ :	39	44	40	39	44	41
Monthly payment (dollars)						
- ANDA	8	10	11	11	12	10
- Private aqueduct	4	6	7	6	5	5
- Other sources	13	19	14	13	18	16
Deduced average tariff (only for ANDA) in dollars/m ³ ⁸	0.23	0.26	0.24	0.31	0.25	0.26
** Only for households who showed the receipt						

Source: World Bank, 2001.

4.7 The household survey shows that 72% of families in the lowest quintile drink water from the public aqueduct without boiling or other treatment, while in the highest quintile only 31% do so. Poor families appear either to trust the public aqueduct more than well to do families, or simply to have less choice in the matter. In fact, according to the USAID/CARE/OPS Evaluation of Potable Water and Sanitation, 1993 "approximately 90% of the surface water is found to be highly contaminated, for

⁶ Households might have more than one source of water, therefore the sum of percentage access might be greater than 100.

⁷ Consumption data for other sources turned out to be unreliable (too wide a variation and many missing values). This is understandable since people keep better track of how much they pay than how much they consume. Without receipts, it is difficult to estimate consumption.

⁸ Ideally, this analysis should be discriminated by fixed and variable charges, since subsidies to the poor should only be included in the fixed portion, leaving the variable cost to reflect consumption decisions. Unfortunately the payment information is not separated this way, and in the case of El Salvador, subsidies are included in the variable portion.

organic waste, agro-chemicals, industrial waste and a disproportionate erosion caused by unplanned destruction of forests." IDB documents cite 95% of El Salvador's surface water as contaminated.

4.8 Tariffs for water services are made of a fixed minimum charge plus charges discriminated by consumption levels and by land use: residential, industrial and commercial. Institutions that provide social benefits, such as churches, hospitals and schools, are under a preferential regime. The current tariff structure, set-up in 1994, was originally conceived to cover current operations and maintenance costs, leaving out investments, and was supposed to be updated every six months. Unfortunately the updates never took place and today the tariffs do not even cover a reasonable portion of operations and maintenance. Finally there is a measurement problem, with many connections un-metered and no updated cadastre of consumers, resulting in an unaccounted for water rate of 39% and a reported 13% commercial loss. The outcome is financial problems for ANDA and a clear deterioration of its infrastructure. ANDA's statistical report for 1999 shows income for the past five years lagging some 20 -25% behind operating expenses, not including amortization of investments which are generally paid by the national government. In addition to financing ANDA's investment through the Fondo General de la Nación, the government subsidizes the company's operation, which indirectly benefits the better off households as these consume more water than the poor.

4.9 The household survey shows that the poor pay almost as much as the wealthy for the water they consume. First, average household water consumption per month does not vary much across consumption groups, fluctuating around 41 m³. Although per capita consumption is much higher in the fifth quintile, household size is higher in the first quintile, equilibrating household consumption. Since consumption is relatively constant and tariffs are differentiated only by household consumption levels, the result is that, on average, the wealthiest pay only 1.5 more than the poorest. In fact, the deduced average ANDA tariff varies only from \$0.23 per m³ to \$0.25 per m³. Further inquiry show that, although ANDA prices per m³ are in 1 to 5 ratio from the lowest point (20m³) to the highest (40m³), only 8.1% of the households in the first quintile consume less than 20m³.

Box 4.1. ANDA's poverty program

In answer to the needs of metropolitan San Salvador, ANDA introduced a special program in 1995 with help from UNICEF and the government of Luxembourg. In the past five years it has reached 125 low-income communities, benefiting some 20,000 families with special projects identified by community members. ANDA follows an inventory of communities which have requested services since 1996. Inclusion in the program thus depends on community initiative and participation. Community members lend labor, supervision and guard materials and, with the help of local adolescents trained in plumbing, construct and maintain systems - usually piping from neighborhood cisterns to house connections and simplified sewer systems. For low-income residents interviewed the changes are significant, measured in terms of time and money saved when water is piped to the house, and in terms of the possibility of installing sanitary sewers and water-borne drainage from the house. According to ANDA's project director, expansion or improvement of services in low-income urban communities is a losing venture and holds little interest for ANDA, as connection rates charged in low-income communities do not recover investment costs.

Source: Author's compilation, 2001.

4.10 Second, monthly payments are higher for alternative sources, probably because bottled water, which is used by half of the households interviewed, is expensive. The result again is that wealthy households pay only 1.4 times what the poor pay. As for the private operator nothing can be concluded since we do not have reliable consumption data for that source. Most probably monthly payments under this source are smaller because consumption is smaller. Third, there is a problem with measurement as

two thirds of the connections do not have a meter and even if meters are installed in a third of the connections, many do not work properly and are not maintained. Households without a meter or sharing one, as well as those using public wells are charged based on estimated consumption levels, which is inaccurate.

4.11 Turning to sanitation, the situation of the poor is again clearly disadvantaged. First, a high percentage of poor households dispose of their grey waters in the backyard, street or nearby ravines (average 26%), posing serious environmental problems (table 4.2). By contrast this percentage is nil in the fifth quintile. On the other hand, many of the poor families do not have a sanitary facility inside their houses and have to use latrines in the backyard or places out of the property (33%). For the poorest, disposition of waste waters is made mostly via the public sewer and the latrine system (73% and 20% respectively).

Table 4.2. Sanitation of grey and waste waters by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% disposing of grey waters in backyard, street, ravines						
-From shower	25	16	8	4	0	11
-From laundry	26	17	9	4	1	11
-From cooking	27	17	8	4	0	11
Place where hhld members urinate/defecate :						
- % having sanitary facility inside the house	67	79	92	94	99	86
- % having sanitary facility or latrine in backyard	28	16	6	4	1	11
- % urinating/defecating out of the property	5	5	2	3	0	3
Method to dispose of waste waters:						
- % using sanitary facility connected to public sewer	73	83	89	96	98	88
- % using sanitary facility connected to private sewer	5	2	2	1	1	3
- % using sanitary facility connected to septic tank	1	1	2	0	0	1
- % using latrine	20	12	5	2	0	8
- % using backyard, street, river, etc	2	2	1	0	0	1
Year in which system was acquired (ANDA only)						
- % cases in which it existed when moved in	26	35	53	61	62	48
- % who acquired it before or on 1980	6	12	18	14	13	13
- % who acquired it between 1981-1990	24	18	14	14	16	17
- % who acquired it between 1991-2000	44	35	15	11	9	22
Acquisition cost (ANDA only) (dollars)	69	51	15	11	11	32
How was the service acquired (ANDA only)						
- % hhlds acquiring service through personal action	34	26	20	16	11	21
- % hhlds acquiring service through communal action	40	26	11	6	2	17
- % hhlds acquiring service through government action	1	3	2	1	3	2
- % hhlds acquiring service through developer	21	37	62	75	81	56
Problems with public sanitation system (ANDA only)						
- % experiencing bad smells	7	7	6	7	7	7
- % experiencing overflowing	1	2	1	2	2	1
- % experiencing flies	11	10	6	7	7	8
- % experiencing no problem	82	82	87	84	84	84

Source: World Bank, 2001.

4.12 Only 26% of respondents in the lowest quintile had access to the public sewer system when they moved into their houses, compared to 62% of families from the highest income quintile. Lower income families reported paying substantially more for connections to the public sewer system. Average costs were \$69 for the lowest quintile, compared with a mean of \$11 for the highest consumption quintile. The cost differentials are explained by the fact that most of the poorest families (74%) did not have connections when they moved in and of these, many had to rely on personal and communal action to get the connection in already existing developments. This is much more costly than providing the connection at the time of construction, before people settle in, which appears to be the case of a majority of the wealthier. Besides, for the wealthy who had the system when moving in, these costs are included in the price of the property. It is also important to note that most of the poor families got their connections in the period 1991-2000, while the wealthier got them earlier, and therefore inflation could play a role in explaining the gaps. Like for the case of water, the percentage of families that got help from the government in getting connected to the public sewer is extremely low: 1%.

B. Electricity

4.13 The institutional setting for electricity in El Salvador changed three years ago when this service was privatized. Provision of electrical energy in the AMSS depends on two private companies: Del Sur, which holds 20% of the area in concession, limited to the municipalities of Nueva San Salvador and Antigua Cuscatlán, and the Compañía de Alumbrado Eléctrico de El Salvador (CAEES) which holds 80% of the area, basically all other municipalities in AMSS. According to CAEES, there are no waiting lists of communities or households needing connections in CAEES's area and that connection to the system is immediate on application for service. Overall the privatization of electrical services in El Salvador is counted as a success, with reasonable prices and efficient service.

4.14 The household survey shows that a substantial percentage of poor households do not have street lighting (20%) and of those who have, many got connected recently (49%) (table 4.3.). Most of the poor report access to electricity (99%), but this percentage hides some illegal connections since 4% of these households rely on neighbors or on informal connections (and even these numbers are low estimates, since people do not like to say that they connect illegally), and this result lines up with the 10% households in this quintile who do not have a meter.

4.15 While access to electrical service appears from the survey to be almost universal, service quality is a problem across all quintiles. Only 55% of those interviewed have no problems with their service and 65% experienced blackouts in the last 6 months. In addition, households surveyed reported problems with variable current: 21%, insufficient voltage: 7%, and flickering lights: 17%.

4.16 The survey shows that the poor pay practically the same unitary price per Kwh consumed as the wealthy, with a deduced tariff of \$0.13 in the first quintile versus \$0.15 in the fifth quintile. This results from the fact that tariffs depend only on consumption, and consumption is clearly elastic with respect to aggregate consumption. Another factor to consider is that CAEES and Del Sur have different tariffs and serve specific geographic areas. When asked "what happens if you do not pay the bill?", 90% of the respondents in the first quintile say the service is cut. Interestingly, only 82% of the households in the fifth quintile report having the service cut, with apparently a higher case of penalties, instead.

Table 4.3. Street lighting and electricity by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% hhlds with street lighting	80	86	92	94	97	90
% having street lighting only in the last five years	49	33	26	25	23	28
% with electricity in house	99	99	100	100	100	99
Source of electricity:						
- % getting electricity from the electric company	95	97	100	100	100	98
- % getting electricity from neighbors	4	3	0	0	0	2
Existence of electricity meter :						
- % having an electricity meter that works well	90	94	98	97	99	96
- % having an electricity meter that does not work	1	1	1	0	1	1
- % not having electricity meter	9	4	1	3	1	4
% who have experienced blackouts in last 6 months	63	64	68	65	65	65
Problems with electricity service:						
- % having lost an electric appliance due to changes of voltage	13	21	24	20	28	21
- % experiencing insufficient voltage to operate certain appliances	8	9	4	7	7	7
- % with variable light intensity	21	16	14	19	15	17
- % with no problem	58	53	59	54	51	55
- Payment per month (dollars)	13	19	20	23	31	21
- Consumption (Kwh)	95	122	126	156	191	135
- Deduced tariff (dollars/Kwh)	0.13	0.15	0.17	0.14	0.15	0.15
* only if receipt was shown						
What happens if does not pay the bill:						
- % whose service is cut	90	85	81	87	82	85
- % who have to pay a penalty	8	13	15	12	16	13
- % who are not affected	1	3	4	2	3	3

Source: World Bank, 2001

C. Solid waste collection

4.17 Solid waste collection is the responsibility of the municipality – which means that fourteen municipal companies operate in the AMSS, in addition to small private companies. The efficiency of these companies is highly variable. First, overall cost of collection and disposal per ton goes from \$9 in Tonacatepeque to \$54 in Antiguo Cuscatlan. Second, San Salvador, Nueva San Salvador, Ayutuxtepeque and San Marcos present high costs per person served. Third, in terms of solid waste revenues minus direct expenses, eight of the fourteen companies present negative results: Mejicanos, Ayutuxtepeque, San Marcos, Antiguo Cuscatlan, Soyapango, Apopa, Nejapa, and Tonacatepeque.

4.18 A significant percentage of poor households is not covered by the door to door municipal solid waste collection service (28%). Many of these households have to rely on municipal collection at a transfer point (23%), few rely on private collectors (2%), and a small percentage admit throwing their waste in lots, rivers, ravines, backyards or burning it (4%). Private collectors are used more frequently by wealthier households, although, overall access is low (table 4.4).

Box 4.2. Solid waste management in the Metropolitan Area of San Salvador

A Japanese consulting firm, has been contracted recently to develop a solid waste management system for the entire metropolitan area. The consultant's proposal is to introduce private sector participation in solid waste collection through a single, AMSS-wide concession which would operate in upper income neighborhoods. Assuming that a private concession would operate modern garbage collection trucks which could not reach many of the marginal or low-income neighborhoods where roads are unpaved and topography difficult, the consultants presume that lower income neighborhoods would rely for collection services on micro-enterprises. According to Bank research (Bartone et. al.) micro-enterprises in garbage collection uniformly need a mix of neighborhoods (low and high income) to be financially sustainable. It is not clear micro enterprises will be financially sustainable if assigned a collection circuit of low income neighborhoods.

A new sanitary landfill, serving 10 of the 14 municipalities in AMSS, started operations in 1999. It is managed by a consortium made of a Canadian firm and the 10 municipalities. The landfill has been designed to serve these and surrounding municipalities for a period of 20 to 25 years. Disposal fees, at \$16 per cubic ton, fully cover operation costs and leave a margin for investment and profits. This case is cited as an example of successful metropolitan coordination and negotiation. The project includes the future establishment of transfer stations where separation of garbage will take place, composting stations for organic waste, and the acquisition of equipment to process methane gas.

Source: Author's compilation, 2001.

4.19 A very high 71% of poor households report having one problem or another with respect to solid waste: 28% report piling of garbage, 16% report bad smells, 13% report flies, and 13% report rats. These percentages are, for the most part, higher than in the fifth quintile. Oddly enough, the reverse trend appears in answer to whether high prices are a problem, with better off families naming prices as a problem, 11 times as much as families who are worse off.

4.20 Pricing of solid waste collection services, as well as other indicators already discussed, are highly variable by municipality. Housing fees per m² per month go from \$0.006 in San Marcos to 0.017 in Mejicanos and 0.03 in San Salvador. Tariffs are divided into residential and industrial/commercial. Except for Ciudad Delgado and San Salvador, collection fees do not depend on the quantity of solid waste produced. The household survey shows that payments for solid waste collection services are clearly differentiated by consumption group, particularly for the municipal services, either door-to-door or using a transfer point. The prices for the municipal service using a transfer point and the private service are significantly lower than those of the municipal door-to-door service.

D. Drainage

4.21 The institutional setting for storm drainage is not very clear as historically the responsibility fell under a division of the Ministry of Public Works (MOP). When the Ministry was reformed in 1998, and the Vice-ministry of Housing and Urban Development (VMVDU) was created, the drainage functions were not assigned to any unit. In April 1999, the metropolitan planning office (OPAMSS) and the VMVDU signed an agreement in which OPAMSS took the responsibility of reviewing drainage conditions in new developments as part of the building permit process. Responsibility for physical

maintenance and improvement of the drainage systems has not been defined, but given its importance, municipalities have taken some leadership. Thus, responsibility and overlaps are an issue, compounded by the lack of global information. Detailed studies conclude that storm drainage is a major concern in metropolitan San Salvador, principally because of frequent flooding and occasional landslides during the rainy seasons.

Table 4.4. Solid waste collection service by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Service provider:						
- % having door to door municipal collection ⁹	72	76	78	84	90	80
- % having municipal collection at transfer point	23	19	17	12	7	16
- % relying on private collectors	2	2	5	6	4	4
- % who throw solid waste in lots, rivers, ravines, backyard or burn	4	6	3	1	0	2
Problems of solid waste collection service (regardless of collection type):						
- % experiencing piling of garbage	28	25	24	22	21	24
- % experiencing bad smells	16	14	13	8	8	12
- % experiencing flies	13	14	10	9	6	10
- % experiencing rats	13	12	15	15	10	13
- % who think the tariff is too high	1	1	5	9	11	6
- % with no problem	28	31	31	35	42	33
Monthly payment for (dollars):						
- Door to door municipal collection	2.8	3.7	4.4	4.6	5.7	4.2
- Municipal collection at transfer point	1.6	1.6	2.5	3.1	4.8	2.4
- Private collectors	1.5	2.4	1.5	1.9	1.8	1.8

Source: World Bank, 2001.

4.22 Floods affect all residents in AMSS (10%), but landslides are clearly a problem of the poor (18% versus 5%). In fact some 6,500 families in quintiles 1 and 2 (combined 8%) reported having to resettle in the last years due to floods and landslides. With the recent earthquakes it is estimated that the drainage situation in AMSS has worsened due to the physical damage of underground structures (table 4.5).

Table 4.5. Drainage issues by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% who have suffered from physical damages due to:						
- floods	10	11	11	9	7	10
- landslides	18	15	9	5	5	10
% who had to resettle due to floods or other disasters	3	5	2	0	0	2

Source: World Bank, 2001.

⁹ This indicator includes households located on streets with no vehicular access who take their solid waste to the closest street where collection trucks do go through.

5. PUBLIC TRANSPORT

5.1 As other capital cities in the region, San Salvador and its surrounding areas have a deficient public transport system. This system is made of private sector providers regulated by the central government under a structure that is ineffective and financially unviable. This leads to problems such as poor service, a deficient safety record, and congestion, particularly in the city center. Although 70% of daily trips in the AMSS are on public transport, motorization levels in the city are rising rapidly and faster than the population (motorization increased 34% in the last three years versus a 17% increase in population in the same period, TAHAL, 2000), raising concern over increased congestion and its negative consequences on economic growth. These issues are explored in this chapter through the following sections: first a description of the institutional setting, second an account of the provision of public transport in AMSS, third a discussion on costs and pricing, and finally an analysis of the results of the household survey.

A. Institutional setting

5.2 In comparison to land and housing, few institutions are involved in the regulation, legislation, and policy setting of public transport. From the government side, the most important agency is the Ministry of Public Works, Transport, Housing and Urban Development, in which two of the three vice-ministries, Public Works and Transport, are directly involved in public transport.

5.3 Overall, the Vice-Ministry of Transport (VMT) perceives the public transport situation in the AMSS to be chaotic and unacceptable, and believes that it can be improved by enhancing regulation and management and through steps such as strict enforcement of routes and designated (as opposed to arbitrary) bus stops. But the VMT has been unable to carry out such reforms because it concentrates too many responsibilities under a very limited budget. The VMT, and more specifically its land transport division, has two units dealing with passenger transport: (i) transport, in charge of concessioning new routes, changing existing routes, determining fares and schedules, administering the fuel subsidy, managing the bus terminals, dealing with circulation, traffic lights and traffic signs, and all the procedures related to transfer of vehicle ownership; and (ii) transit, in charge of administering driver licenses and vehicle plates, enforcing transit laws and maintaining the vehicle registry. In January 1999, the VMT concessioned the driver licenses and vehicle plates system to a private company. Since then, these processes have become simpler and faster.

5.4 A proposal to modernize the transport sector, is currently being discussed. According to this proposal there will be a separate Ministry of Transport in charge of formulating transport policies, enforcing regulations, structuring legal changes in the system, planning road infrastructure use and enhancement, define subsidy policies and its corresponding financing mechanisms, and monitor public investment. The new Superintendencia de Transporte (ST) will be an independent agency in charge of regulating competition in public transport, setting and monitoring tariffs, and ensuring the enforcement of safety measures. The new Fondo Vial (FV) will be the financial mechanism to channel resources for the maintenance and improvement of road infrastructure. It will operate through road user taxes. Finally, the new Instituto Nacional de Carreteras (INC) will be in charge of construction, rehabilitation and maintenance of road infrastructure through private sector contracts.

5.5 AMSS has a master transport plan prepared by a consulting firm, focusing mainly on improving the road infrastructure through enlarging existing roads and constructing new ones, at an approximate cost of \$1,300 million. In terms of public transport, the plan lays out several options including the recovery of an obsolete train system that goes along the way between Apopa and San Salvador, establishing dedicated busways, and the construction of a light rail system, all of which is estimated at \$850 million. It is unclear whether this transport master plan will be implemented.

5.6 Although municipalities do not have an executing role in the provision of public transport, the Municipality of San Salvador has begun to participate in the sector through the rationalization of public parking in the city center and the designation and enforcement of bus stops. If the central government were to implement a transport system a la Curitiba, as it has been discussed, the city government is likely to weigh in on this plan. OPAMSS does not have a direct input into transport planning, but as the technical support agency of the metropolitan municipalities, it provides advice on the transport aspects of city planning.

B. Provision of public transport

5.7 In the AMSS public transport services are provided entirely by the private sector. There are about 3,700 operators, a majority of whom own only one or two vehicles. Operators usually belong to associations that promote and coordinate activities related to the public transport of passengers. Depending on the legal structure that they choose (general vs. limited partnership, cooperative), these organizations have different structures and fall under different government regulations. Taken together they have significant power and leverage.

5.8 In contrast to the government, operators argue that the sector is over regulated and that this is constraining service provision. They emphasize that the government-established tariffs are too low. They also identify lack of access to affordable credit as a major constraint in modernizing their business and fleet. Operators, as well as the government, believe that there is excessive competition in the sector. The government is not issuing any additional route permits and the operators claim to be losing money.

5.9 Operators account for a registered fleet of 5,304 buses and minibuses, of which about 82% are estimated to be in operation. The total daily capacity supplied by the public transport fleet is estimated at 731,600 seats. Regular buses account for 54% of the total fleet and 71% of the daily seating capacity supplied in the city; minibuses account for the rest. The average age of the fleet of regular buses is 20 years versus 7 years for the minibuses. The regular buses have high maintenance costs, spend a considerable amount of time off the road for repairs, contribute significantly to air pollution, and are deemed a safety risk. A proposed law bans all buses older than 15 years from providing public transport service. If the law were to come into effect as proposed, about 2,000 buses or 72% of the registered fleet would need to stop operations.

5.10 The Vice-Ministry of Transport (VMT) has authorized private providers to operate 149 routes in the AMSS and its records indicate that the fleet of regular buses provides an average of 16,600 trips per day. By comparison, results from a recent study indicate that there are currently about 160 routes in operation and that daily trip rate for buses is 11,100 or about 33% less than the VMT estimate (Tahal 2000). This study estimates that minibuses account for an additional 9,400 trips per day, bringing the total of daily bus trips to 20,500.

5.11 Of the 160 routes, buses operate on about 88 and minibuses on 72 routes. About 84% of the routes originate outside the municipality of San Salvador. Two municipalities that are important points of origin are Soyapango (25 routes) and Mejicanos (27 routes). The most important destination is San Salvador. The main problem is that 88% of the routes either terminate in the city center or go through it. This has led to a high concentration of buses in the city and has exacerbated the congestion problem downtown. First, on certain major streets buses account for a significant proportion of the total daily volume of vehicles. Second, these buses park on the small and congested downtown streets because there is no separate parking space for them. The result is that some parts of the city center get almost completely blocked by buses at certain times of the day.

5.12 Buses and minibuses account for only 2.2% of all vehicles in AMSS but are involved in about 20% of accidents. The high rate of accidents on public transport stands in contrast to the record in most developed countries where public transport tends to be safer as compared to other modes. The recent TAHAL study (2000) argues that many of the accidents occur due to non-observance of bus stops. People run across roads to catch buses and/or after they disembark and often get hit by other motorists in the process. Another factor contributing to the high accident rate is the competition between buses operating on the same route – operators tend to race each other in competing for passengers. Other factors include: overloading, the bad condition of buses, unlicensed drivers, and lack of respect for traffic rules.

5.13 There are no terminals or designated parking lots for buses operating in the AMSS. As mentioned earlier, this is problematic because the buses park on city streets and this creates an especially difficult situation in the highly congested city center. There are three formal terminals and two informal terminals in the city for inter-state bus routes. An additional three terminals serve routes connecting El Salvador to Costa Rica, Panamá, Honduras, and Guatemala. Most of these are small facilities with minimal infrastructure and are usually privately owned and operated.

C. Cost and pricing issues

5.14 One of the main problems of the transport system in AMSS is the existence of a diesel fuel subsidy that has negatively affected the efficiency of service, raised the total number of trips, and increased the proportion of low or zero occupancy trips. The financial cost of the subsidies is borne by the Ministry of Economy and responsibility for administering it lies with the VMT.

5.15. In May 2000, eligible bus owners/operators were receiving 400-600 gallons of subsidized fuel per bus per month. The subsidized price was set at about \$0.22 per gallon (the actual price varies slightly each month) as compared to the prevailing market rate of about \$1.32 per gallon. The quantity of subsidized fuel allocated to a bus depends on the size of the bus, number of trips per month, and distance. A team of dispatchers monitors the trip rate to ensure that operators are indeed providing service at agreed terms.

5.16 In 1997, the government increased the total amount of subsidized fuel allocated for bus services, increasing the ceiling from 2.6 to 3.6 million gallons per month. In May 2000, the fuel subsidy was costing the government \$2.2-2.3 million per month. The central government has, however, stated its intention to eliminate or at least reduce the fuel subsidy because the system is expensive, difficult to administer, and increasingly corrupt.

5.17 In terms of operating costs, the TAHAL study presents a rough estimate based on a sample of buses. The results indicate that the average operating cost for a regular bus is about \$1.23 per km, of which 38% is the variable cost and 62% is the fixed cost. The operating costs of a midibus and minibus are estimated at \$1.1 and \$0.94 per km, respectively – that is, their total operating cost per km is lower than that for a regular bus. The difference is largely due to the significantly lower variable costs for midibuses and minibuses which are more fuel efficient, newer, and better maintained. The fuel subsidy is equivalent to about 11-15 % of the estimated operating costs; for regular buses the subsidy reduces the total operating cost to an estimated \$1.1 per km.

5.18 Fares are fixed at \$0.17 per passenger; with the subsidy this translates to an estimated fare of about \$1.9 per passenger. The tariff is not based on distance and does not represent cost of operation. The fixed tariff is applicable over a large area and results in significant cross-subsidies from short distance travelers to those traveling a longer distance. According to the TAHAL study, to cover full

operating costs under the current tariff (without subsidies) it is necessary to have an average of 7 passengers per km at a minimum. With the fuel subsidy, the required average is 6 passengers per km.

D. Results of the household survey concerning transport

5.19 Although vehicle ownership is at a very high level in AMSS (43%), the result is very unequal by consumption groups, with the poor owning a vehicle in 4% of the cases, while this percentage is 85 in the case of the wealthy (table 5.1). Of these vehicles, the car has the largest share with a 41% of the sample households owning at least one car. Part of this large portion of car ownership is due to the large amounts of remittances that Salvadorans in the USA send to relatives in El Salvador. According to national statistics remittances are used first for housing acquisition and second for car purchases. By contrast, only 5% of the households own bicycles, and an insignificant 1% own a motorbike.

5.20 The poorest rely more on public transport (100%) than the wealthiest (69%), but in general, the usage of buses is very high across all consumption groups, despite the high level of car ownership. Of the 151 households (11% of the sample) that do not use the public bus system, 54% said that the main reason for not using the bus is that they prefer to use their own vehicle. About 24% identified poor safety/security as their main reason for not using the bus.

5.21 New and better maintained buses and improved safety and security are the key actions that would improve service for the poorest of AMSS residents who use regularly the service. The high priority accorded to these two factors holds across income groups. About 18% voted for reduction in "crowding" and a surprisingly low proportion (16%) voted for lower tariffs. As expected, a higher proportion of the poorer households (20%) accorded first priority to lowering of tariffs as compared to those in the middle and high income groups. Reduction of waiting time and addition of routes each received only about 9% of the votes.

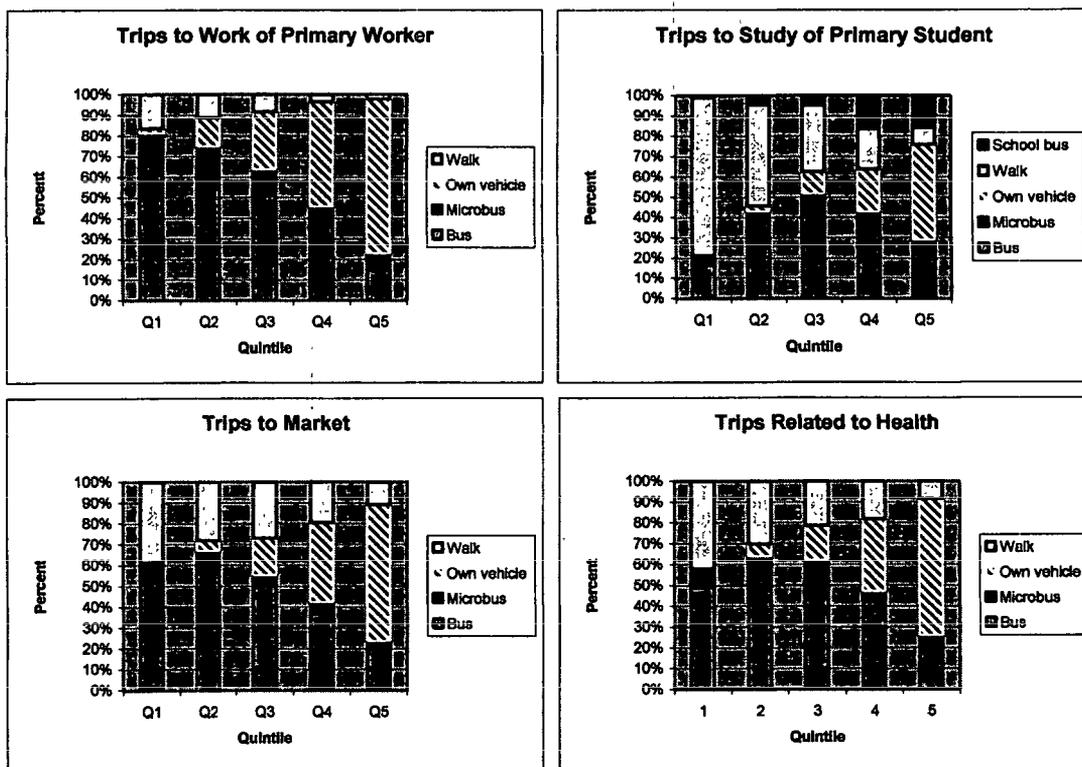
Table 5.1. Vehicle ownership and use of public transport by household consumption quintiles in AMSS, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% households owning a vehicle	4	18	45	60	85	43
Type of vehicle owned:						
- % owning a bicycle	1	4	6	6	9	5
- % owning a car	2	16	43	59	84	41
- % owning a motorbike	1	0	0	1	0	1
% hhdls in which at least one household member uses public transport on a regular basis	100	98	95	85	69	89
Major problems of public transport (according to non-users) :						
- % who think that the service is unsafe	NA	NA	NA	20	24	24
- % who prefer to use own vehicle	NA	NA	NA	56	51	54
Actions that would improve the service :						
- % who think the first priority is to reduce waiting time	10	11	8	8	7	9
- % who think the first priority is to reduce crowding	13	14	20	16	30	18
- % who think the first priority is to add routes	10	9	8	9	9	9
- % who think the first priority is to decrease the fare	20	18	17	18	11	17
- % who think the first priority is to improve security	22	26	26	33	36	28
- % who think the first priority is to get new buses and maintain them better	23	21	24	29	37	26

Source: World Bank, 2001.

5.22 The poor commute mostly by bus to work, to the market and to health centers, as shown in graph 5.1. Specifically, 81% of the poor primary workers in the sample rely on the regular or micro bus, when this rate is 23% in the fifth quintile. Own vehicles are the second most important mode for work trips, particularly for the wealthiest (75%). About 16% of the poorest households walk to work while only 3% of the richest do so.

Graph 5.1. Transport mode by household consumption quintile and by purpose of trip, AMSS, 2000



Source: World Bank, 2001.

5.23 The majority of poor children commute to school walking (78%), while in the fifth quintile this percentage is only 20. None of the poorest students commute to school by car, while 21% of the wealthiest do so. Trips to the market and to health centers in the case of the poor are dominated by the bus, although a considerable portion walk (39% and 42% respectively), while the wealthy use their own vehicle in most cases (65% and 66% respectively).

5.24 The poorest fifth spend more time in traveling to work and to the market as compared to the richest fifth (table 5.2). The average trip time, including waiting and walking, for primary workers in the first quintile is 52 minutes as compared to 41 minutes for those in the fifth quintile. This apparently small 8 minute difference in a one way trip goes up to 22 minutes per day and 110 minutes per week. Although more students in the first quintile walk to school, traveled distances are longer for students in the fifth quintile. This might be related to the fact that the poorest go to public schools in their neighborhoods, while the richest go to more distant private schools.

5.25. Fares increase progressively by quintile, probably due to the existence of different types of bus service, including regular, minibuses, midibuses, and microbuses. The poorest workers have to travel to work more often than the wealthiest: while 43% of the workers in the first quintile travel 6 times per week to work, 46% of the workers in the fifth quintile travel 5 times per week to work.

Table 5.2. Distance, time, fares, and frequency of trips by household consumption quintiles in AMSS, 2000

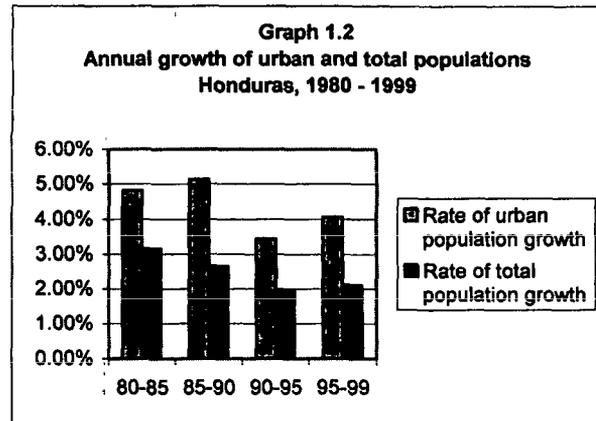
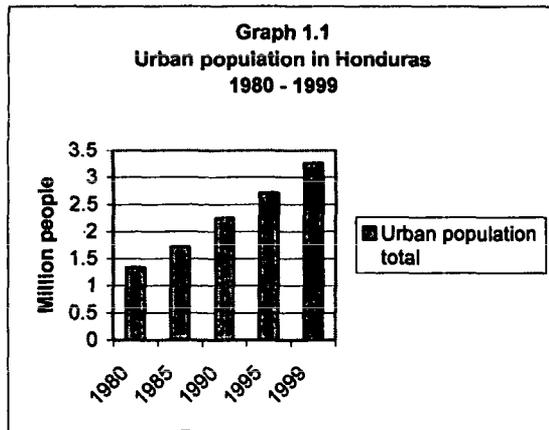
Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Distance to destination						
-Minutes to work	39	42	41	37	29	38
-Minutes to study	14	18	22	23	21	20
-Minutes to market	21	21	19	17	16	19
-Minutes to health center	22	22	24	23	22	22
Minutes spent on waiting and walking time to stop (only to go to work)	13	13	11	10	12	12
Fare (only for public transport to go to work) (dollars)	0.2	0.3	0.3	0.3	0.4	0.3
-Frequency of trip to work						
* % who do the trip 5 times/week	19	19	36	42	35	30
* % who do the trip 6 times/week	40	42	32	28	35	35
* % who do the trip 7 times/week	24	19	13	12	10	15

Source: World Bank, 2001.

II. TEGUCIGALPA

1. URBANIZATION AND POVERTY IN HONDURAS

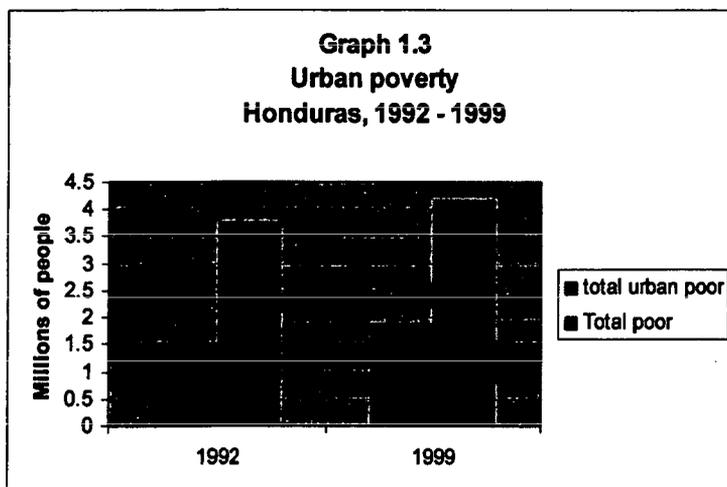
1.1 Of all countries in Central America, Honduras has urbanized the fastest. In 1980 36% of its population lived in urban areas, equivalent to 1.3 million people. By 1999 more than half of the country's population lived in urban areas for a total of 3.3 million urban citizens (graph 1.1). Annual growth rates of the urban population have been consistently higher than those of the total population over the last decades (graph 1.2). Although the peak of urban population growth was in the period 1985-1990, with an average annual rate of 5%, urbanization has continued at a fast pace in the subsequent years and will continue to do so according to forecasts from the United Nations Population Division showing that by 2010 over 60% of Honduras's population will be urban.



Source: World Bank, various years

1.2 Honduras is the second poorest country in Central America, with a GNP per capita of \$760 in 1999, a high incidence of poverty and a high level of inequality. Although Honduras did not suffer from the civil conflicts that ravaged Central America during the 1980s and early 1990s, it was affected by them. Honduras endeavored to improve its macroeconomic indicators, to strengthen democratic institutions, and to increase transparency.

1.3 As it is the case of other countries in Latin America, agriculture has been declining in Honduras, decreasing from 22% of GDP in 1990 to 16% in 1999. After a period of fiscal and external crises in the first half of the 1990s, overall economic performance improved in 1997 and 1998. But at the end of 1998 Honduras was hit by Hurricane Mitch, setting back Honduras's development gains of the last years, destroying infrastructure, and affecting thousands of people.



1.4 With the high rates of urbanization in Honduras, poverty is increasingly becoming an urban phenomenon as illustrated in Graph 1.3. In 1992 the urban poor made up 40% of the poor in the country, while in 1999 this percentage jumped to 45%. In absolute terms this means that by 1992 there were 1.5 million poor in urban areas whereas in 1999 this number increased to 1.9 million. Urban poverty growth made 97% of total poverty growth in Honduras in that period.

Source: World Bank, 2000 (c) and World Bank, various years.

1.5 Estimations indicate that Tegucigalpa has over 1 million inhabitants and that in the period 1980-1995 it grew at an extraordinary average annual rate of 12%. Originally there were two cities, separated by a river, Comayagüela and Tegucigalpa. They were united under a single government, called Central District, in 1982. The city's growth is characterized by extensive rather than intensive land use, with some neighborhoods spreading to areas of very difficult access. The city is prone to natural disasters, particularly floods, such as the one following Hurricane Mitch in 1998, which left 180 people dead, 860 disappeared, 250,000 affected, 3,300 houses partially destroyed, and 14 of the 20 bridges that connect the city, destroyed. The irregularity of its topography, and the fact that growth has taken place rapidly and informally, has made many of Tegucigalpa's settlements, particularly the poorest ones, highly vulnerable to environmental degradation and natural disasters.

1.6 It was not possible to obtain the official country's poverty figure for Tegucigalpa. Descriptive statistics of the welfare measure used for this study, total consumption per capita per year, are presented below:

Total consumption per capita per year(dollars)

Minimum	\$ 120
Maximum	\$7,290
Mean	\$1,711

Population under different levels of consumption

% under 1 dollar /capita/day	4.4%
% under 2 dollar/capita/day	23.5%
% under 3 dollar/capita/day	40.8%

1.7 On average, Tegucigalpans live on \$4.7 per capita per day, with the poorest counting only on 33 cents per capita per day and the wealthiest consuming \$20 per capita per day. About 40% of the population live on \$3 per capita per day.

2. HOUSEHOLD AND NEIGHBORHOOD CHARACTERISTICS IN TEGUCIGALPA

2.1 This chapter reviews the conditions in which Tegucigalpan households live and how they perceive their communities. The survey data show that poor households are large, growing fast, and they face several problems, among them, low in-city mobility, very low levels of education, and a high degree of job insecurity. The differences between the first and fifth quintiles in all these aspects are considerable. The worst problems in poor neighborhoods are perceived to be deficient water provision, violence, and bad roads.

A. Household migration, growth, and mobility

2.2 Overall, migration to Tegucigalpa does not appear as a particular occurrence among the poor. In fact, around 13% of all households reported household formation outside of Tegucigalpa and this percentage is more or less constant across quintiles (table 2.1). In Honduras there was no civil conflict to accelerate migration to the cities. Therefore, the main reason for this nevertheless high rate of migration, must be economic. For the poor, the most important reason in choosing a neighborhood is "land price", which in this context must be understood more as land availability (64%), followed by "friends" (24%). The poor are very constrained economically, therefore the availability of land to purchase at a reasonable price or to invade is the driving location factor. And since the poor face substantial problems at neighborhood level, it is important to have friends or relatives nearby.

Table 2.1. Household characteristics by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Place of hhd formation (%)						
- % Tegucigalpa	87	86	88	89	88	88
- % Out of Tegucigalpa	13	14	12	11	14	13
Reasons for choosing neighborhood (%):						
- % choosing based on location of friends	24	22	15	17	12	18
- % choosing based on house location	6	11	16	22	33	17
- % choosing based on land price	64	62	63	57	50	59
Household size (number of members)	7	5	5	4	4	5
Household size growth (%)						
- % hhlds that increased in last year	21	19	10	14	6	14
* Birth	84	80	64	78	63	77
* Other people joining	16	20	36	22	37	23
- % hhlds that decreased in last year	4	5	6	5	8	6
- % hhlds with firm intention to leave in next year	6	6	9	7	12	8

Source: World Bank, 2001.

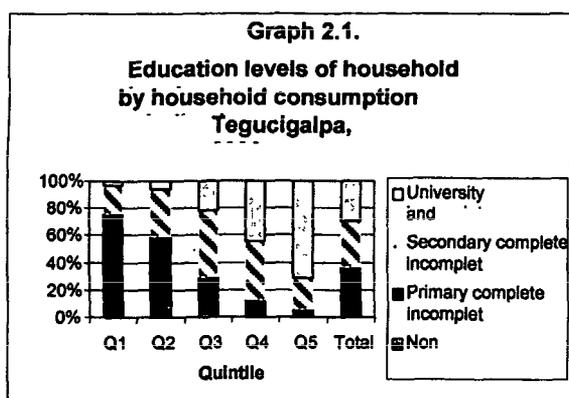
2.3 Poor households in Tegucigalpa are large and growing fast. On the one hand, household size is 7 in the first quintile while it is only 4 in the fifth. On the other hand, natural growth is high among the poor: 21% of the first quintile households reported growth in the past year, with an 84% of these cases explained by birth of a child. In the case of the wealthy, the situation is very different: only 6% of the fifth quintile households reported growth and of these, 63% are due to birth. This means that the birth rate

among the poorest is 18%, while among the wealthiest it is only 4%. The poor then are growing more than 4 times faster than the wealthy and this has implications for physical and social planning.

2.4 The percentage of households reporting that other members joined them in the last year is rather high, particularly in quintiles 3, 4, and 5. This is an interesting occurrence not only in Tegucigalpa but in many large cities in Latin America that face difficult economic conditions. Either entire households move back with the parents of the household head, or parents join the households of their grown up children. This is an alternative way of social protection.

2.5 In the short run the poor are less mobile within the city than the wealthy. Only 6% of the poorest households reported firm intentions to move in the subsequent year, in spite of a myriad of problems in their neighborhoods.

B. Education and occupation



Source: World Bank, 2001.

2.6 The poor in Tegucigalpa are trapped by their very low levels of education. A great majority of poor household heads (75%) declared having no education or only primary studies, either complete or incomplete (graph 2.1). Only 22% of the first quintile household heads have some secondary education. In contrast, 70% of the wealthiest household heads have university studies. Regressions confirm that education is one of the most important factors explaining consumption aggregate levels.

2.7 Most of the poor household heads work (77%), but a significant percentage stay at home to take care of their families (17%) (refer to table 2.2). Very few reported being unemployed (4%), but a large percentage of those employed do not have social security protection (66%). Although a 71% of the poor are employees, only 34% are affiliated to the social security system, meaning that even formal employers do not offer work protection. In contrast, among the wealthy, the rate of employees (66%) is roughly equal to the rate of affiliated to the social security system (64%). The wealthy enjoy other privileges: a higher rate of managerial positions (9% versus 3%), a higher rate of full time employment (91% versus 86%), and a higher percentage with secondary jobs (16% versus 4%). A considerable portion of the poor work in their neighborhoods (16%) and very few work outside the city (3%). There is not much variation of this result among quintiles.

C. Neighborhood characteristics

2.8 The most important problem in poor neighborhoods is water provision (25% of the poor respondents rated this as their most important problem), followed by violence (19%) and bad roads (9%) (table 2.3). In wealthy neighborhoods the situation is different: violence is the most important problem (23%) followed by lack of recreation areas (10%) and deficient transport (9%). When the data is analyzed by gender rather than by quintiles, some differences are found (graph 2.2.). First, violence appears as a worse problem for men, with 28% respondents under this category, versus 19% of women. Second, water is worse of a problem for women, with 15% versus 12% among men. And finally transport is also

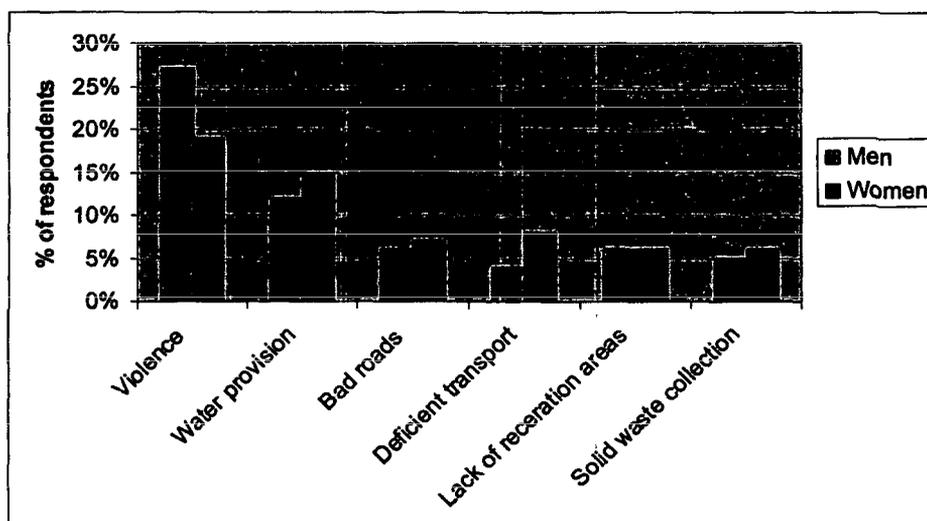
perceived as a worse problem by women, with 8% of the women interviewed reporting this as the worst problem, versus 4% of men.

Table 2.2. Employment characteristics by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Main occupation of hhld head (%)						
- % whose main occupation is household management	17	18	12	8	6	12
- % whose main occupation is to study	0	0.4	0	1.3	0	0.3
- % whose main occupation is to work	77	73	79	80	86	79
- % who are retired	1	3	6	7	7	5
- % who are unemployed	4	3	3	3	0	3
- % doing nothing	2	2	2	0	0	1
Type of employment (all employed members) (%)						
- % who are managers	3	3	6	9	9	6
- % who are employees	71	75	71	74	66	71
- % who are self-employed	25	22	21	18	25	22
- % who work with no remuneration	1	0	1	0	0	1
Conditions of employment (all employed members) :						
- % working full time	86	90	91	91	91	89
- % affiliated to SS	34	50	59	62	64	53
- % with secondary job	4	6	7	14	16	9
Job location (all employed members) :						
- % working in house	8	10	9	6	7	8
- % working in neighborhood	8	5	5	3	6	5
- % working in city	82	81	82	88	83	83
- % working in different city	3	4	5	3	5	4

Source: World Bank, 2001.

Graph 2.2. Most important problems in neighborhood by respondent's gender, Tegucigalpa, 2000



Source: World Bank, 2001.

2.9 Poor neighborhoods appear to be very consolidated but with relatively low community participation. Poor households declared living in their present neighborhoods 17 years on average, quite a long time. But when it comes to participation in neighborhood organizations the percentages are low: only 19% participate in “other church”, 9% in “the catholic church”, 8% in “community improvement committees” and 3% in “sports and cultural groups”. Low participation might be linked to low effectiveness of community organizations. Only 24% of the first quintile households declared that community improvement committees have substantially helped their neighborhoods.

Table 2.3. Neighborhood characteristics by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Reported most important problem (%)						
- % reporting violence as most important problem	19	22	22	22	23	21
- % reporting water provision as most important problem	25	17	12	9	6	14
- % reporting bad roads as most important problem	9	9	8	6	3	7
- % reporting deficient transport as most important problem	3	6	8	9	9	7
- % reporting lack of recreation areas as most important problem	1	4	6	9	10	6
- % reporting solid waste collection as most important problem	3	4	10	8	5	6
Time living in neighborhood (years)	17	17	15	15	13	15
Organizations. in which household participation is frequent (%)						
- % who participate frequently in Catholic church activities	11	12	18	22	17	16
- % who participate in other church activities	19	17	10	9	11	13
- % who participate in community improvement committees	9	5	6	6	6	6
- % who participate in sports or cultural groups	3	2	3	1	2	2
Organizations that have helped significantly in solving community problems (%):						
- % who think the Catholic church has helped significantly	14	12	13	17	11	15
- % who think other churches have helped significantly	9	12	12	11	6	10
- % who think comm. Improvt. Committees have helped significantly	24	18	16	16	13	17
- % who think sports or cultural groups have helped significantly	3	2	3	1	2	2

Source: World Bank, 2001.

3. LAND AND HOUSING

3.1 In contrast to Panamá City, where the canal zone provides for expansion areas, or AMSS where there is an active real estate market, in Tegucigalpa access to serviced land and housing has been severely limited for the urban poor. Constraints to land and housing access are due to: (i) very limited areas of developable land for expansion that have acceptable topography and feasibility of urban services; (ii) the small scale of operations of formal and informal land developers and NGOs; (iii) limited long-term mortgage financing; (iv) inefficient and out of date property registry which produces conflicting property rights; and (v) weak municipal planning and limited coordination between the local and central governments. This chapter explores these issues through four sections: the first describes the institutional setting, the second looks at the structure of land and housing supply, the third deals with housing finance, and the last one summarizes the results of the household survey.

A. Institutional setting

3.2 Access to land and housing by Tegucigalpa's poor is very difficult. This is in part due to the deficient institutional setting that involves a wide range of national and local government agencies, public utility companies, the banking sector, developers and contractors, and NGOs, all of which operate with little coordination and planning.

3.3 Design and enforcement of housing policy in Honduras has been deficient because the agency in charge, the housing department in the Public Works, Transport and Housing Secretariat (SOPTRAVI), lacks technical capacity, an operating structure, and does not coordinate its activities with municipalities and NGOs. With the technical and financial support of Germany's KfW, a housing project unit has been created but has not become operational yet. The end result is that there is not an official housing policy for the country.

3.4 In spite of innumerable difficulties, Tegucigalpa's Central District (the municipality) is potentially an influential actor in the city's land markets. Its responsibilities include: land regulation, property cadastre and registry, management of public markets and cemeteries, functioning of slaughter houses, street operation, maintenance and construction, solid waste collection, and drainage. The district has very limited staff and resources, and a low managerial capacity. Another weakness of the district is the lack of accurate information in terms of land (box 3.1), services, and particularly poverty. A social department was created recently but lacks minimum resources to assess poverty levels and service deficits.

3.5 Unlike El Salvador where no property tax exists, in Honduras it does and its management is decentralized. Current property tax is 3.5 per L1,000¹⁰ of property assessment in urban areas. In spite of the very low property assessments and consequently low property taxes, half of the property owners are in arrears. Property taxes represent 30% of the district's income being the second most important source of revenues after the industry and commerce tax. It is estimated that income derived from the property tax could be increased four fold if information from registered properties would be up to date. In addition to the property tax, the district is entitled to charge betterment taxes to finance street paving, storm-drains and sewerage improvement projects in low income -but formal- communities, at their request. The betterment system has been more reactive to requests than pro-active in initiating projects.

¹⁰ At the time of the survey the exchange rate was 1 dollar=15.1 lempiras

Box 3.1. Tegucigalpa's precarious cadastre

The district's cadastre unit lacks the minimum resources to carry out its work, particularly staff, budget and information technology. The city's cadastre is based on a 1978 aerial photograph prepared by US consultants. No updates have been made and the only hope to improve the basic graphic data is through the work of the US Geological Survey (USGS) in identification of risk areas in the city. The cadastre has information of only 135,000 plots out of a total estimated of 300,000, and of these only 60% have updated information. Assessments for registered plots are updated every five years and are negotiated with property owners and business associations. For non-registered plots, valuation is based on data provided by the property owner. Most properties then tend to be highly undervalued. In addition, there is no coordination between the district's cadastre unit and the national registry under the Supreme Justice Court.

The district does not have a good record of municipally owned land and this problem worsens every day as new invasions take place, particularly in "ejido" lands (lands where property rights are communal as a remnant of an old colonial system). Due to several complex loopholes, multiple registration of "ejido" lands is possible, generating controversial legal battles and the loss, for the district, of these land assets.

Source: Author's compilation, 2001.

3.6 Land regulation is practically inexistent in Tegucigalpa. Land use plans have been prepared since the mid 1970s but they lack a legal basis to allow strict enforcement. As a result, zoning per se does not exist and changes in land use result only from neighborhood protests when a particular use is considered a nuisance.

B. Provision of land and housing

3.7 Part of the housing problem is that the present situation is almost impossible to assess given that there is not a centralized and reliable housing information system. The annual formal housing production in Tegucigalpa is estimated at about 3,000 units. The quantitative housing deficit in Tegucigalpa is difficult to assess, given the current status of information, but the Honduran Chamber of the Building Industry considers it to be 70,000 units nationwide. However, a study financed by IDB estimates that over half of the existing stock lacks either property tenure or at least one of the basic services, making the qualitative deficit very high.

3.8 The most important urban low income housing program at national level has had difficulties in legalizing land tenure in existing settlements where rehabilitation is the main purpose, and in ensuring basic service coverage in new developments. The Program for Comprehensive Improvement of Urban Settlements (PRIMHUR) is managed by SOPTRAVI and was developed with German support. The program targets those with salaries of one half to three times the basic food basket, is active in 4 cities and supports some 2,000 families per year. The arrears are low, compared to other publicly-supported programs. In Tegucigalpa, PRIMHUR has been active in some 90 out of the 150 informal settlements where households contribute with savings, materials and labor to their community's improvement. But difficulties in legalizing land tenure and the scarcity of potable water have slowed down the program. In fact, right after Mitch, PRIMHUR could not build some planned 2,500 units mainly due to these constraints.

3.9 A municipal program to legalize land tenure (PROLOTE) in the poorest neighborhoods of Tegucigalpa is not sustainable. Although the program was able to process some 4,000 plots, housing

25,000 persons, at a low L0.70/m², it was highly subsidized, and arrears were so high that legal battles escalated, forcing the government to intervene, canceling the outstanding debt by decree.

3.10 The lowest market segment offered by formal developers requires at least three minimum salaries, leaving the poorest out of this market. There are several dozen formal developers who buy land, urbanize it, and build housing units, with projects ranging from under a hundred to the largest which produces some 2,000 units per year. The bulk of this housing production is financed through FONAPROVI (see below) and RAP. The developers' main constraints to cost reductions are: (i) the cost and availability of land and water; (ii) very lengthy procedures (that can take over a year) for sub-division permits, involving the District, the water and electricity utilities and the Ministry of Environment; and (iii) lack of long-term financing.

3.11 Housing NGOs in Tegucigalpa have a very limited supply of shelter for the poorest. In fact, there are a few housing NGOs with active programs in Tegucigalpa, many of which started in the late 1980s when USAID funded low interest credit lines for new construction and improvements. After hurricane Mitch, these NGOs built and delivered some 5,000 homes with donated funds, but without sustainable financing mechanisms, some have closed shop and left a legacy of paternalism and unsustainable results.

3.12 Unlike in AMSS, in Tegucigalpa there is no organized informal land market. There are three types of informal land developers in Tegucigalpa: (i) individual households or a small number of them that settle in public lands ("ejidos") or rights of way; (ii) organized invasions of hundreds of households that can be led by professional organizers; and (iii) well known "developers" who take advantage of the outdated land registry, register duplicate titles or usurp public lands and immediately resell them several times through shell companies to avoid the legal system catching up. Given the scarcity of developable land in Tegucigalpa, these are very profitable initiatives.

C. Housing finance

3.13 The Social Housing Fund (FOSOVI), created in 1992 only manages, in conjunction with other agencies, low income housing programs, with limited impact. Along with SOPTRAVI, it manages PRIMHUR, and along with the District, PROLOTE, but in spite of the continuous support of the German cooperation, these programs have had a limited impact and FOSOVI's role has been decreasing steadily.

3.14 Although the Private Contribution System (RAP) generates a considerable L200 million per year, it does not favor the poorest of Tegucigalpans. It was created in 1992 as an institution in charge of channelling funds into the housing sector. RAP obtains its resources from monthly contributions by workers (1.5% of salary), matched by those of their employers. Each company having 10 or more employees has to contribute to the system. RAP's board of directors has representation from the government, the employers and the employees. RAP channels the funds through several financial institutions, benefiting indirectly, families, with loans for land purchases, housing acquisition, housing improvements and refinancing of mortgages. Although all employees must contribute by law, the poorest, who cannot access the formal housing market, cannot access RAP's funds either. RAP lends also to developers, without intermediaries, for housing projects. From RAP's perspective, the main issue in Tegucigalpa is the lack of developable land and water.

3.15 The National Fund for Production and Housing (FONAPROVI) does not reach the poorest either. It was created in 1997 to channel funds from multilateral and bilateral agencies, and from the national government, to the housing sector. As RAP, FONAPROVI lends directly to developers and indirectly to families, through financial institutions. Even though FONAPROVI lends a considerable L500 million per year, this is still not enough to meet the existing demand. Although FONAPROVI is also open for NGOs,

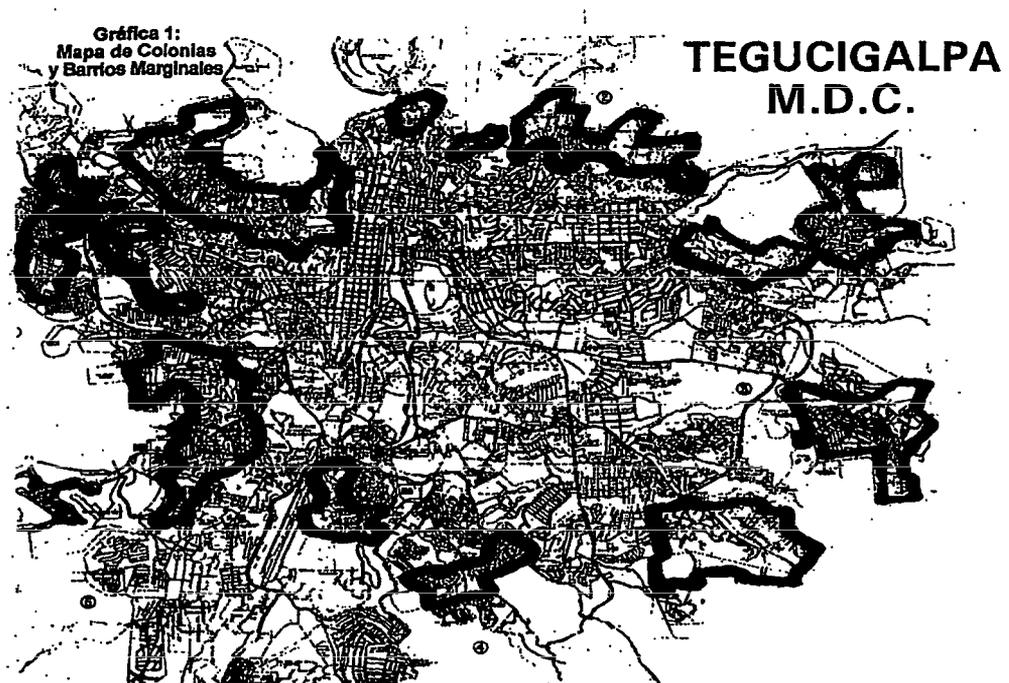
these cannot participate effectively in the system as they do not meet FONAPROVI's conservative conditions, particularly regarding guarantees.

D. Results of the household survey concerning land and housing

3.16 Even though exclusive occupation is very high in Tegucigalpa as a whole (97%), some 8% of the poorest, or the equivalent of 3,200 families live under shared occupation of a housing unit (table 3.1). Many of these families live in rental rooms that do not meet minimum health standards. Monthly rents oscillate between L60 and L100. Each room is inhabited by an entire family of 5 people. After hurricane Mitch, with the destruction of many housing units, and the limited supply of new housing, this tenure option has become more important, making the services of the Administrative Department of Renting (DAI), in high demand.

3.17 Most of the poor declared owning their properties in full (73%) , but this result has to be taken cautiously as interviewees tend to declare full ownership, even when they are really occupying a lot illegally, because they fear government action. A very low 4% of the households in the first quintile report being informal, a clearly understated figure. In fact, when reviewing the documentation for those who claimed being property owners, only 53% of the first quintile households have registered title, meaning that 47% have weak or no documentation. This is a better measure of the degree of informality.

Map 3.1. Tegucigalpa



Source: PADCO, 1998.

3.18 There is little information about informal neighborhoods in Tegucigalpa. The social development unit in the municipality does not have information on poverty levels and service deficits. While an IDB

report cites that over 60% of the population in Tegucigalpa live in marginal or informal neighborhoods, an internal document prepared by the Honduran firm ESA Consultores estimates that percentage to be 30. Since there is no appropriate cadaster and no systematic studies on the matter, all numbers remain estimations. Besides, there is the question of what is understood by “informality”. Nevertheless, our household survey is more in line with the more conservative estimation, since 18% of all households appear to have informal property tenure¹¹. The map 3.1 shows the approximate location of informal neighborhoods in Tegucigalpa, according to a study carried out by PADCO for the IDB.

3.19 When asked about the reason for not having a title the majority of the respondents in quintiles 1 and 2 (the only quintiles where this is really significant) report informal or illegal tenure. Only few households in these groups report that the procedure is time consuming and costly, probably meaning that they have not attempted to legalize their situation. When there is a title, among the poor, it is evenly registered to the male and female household heads (43% and 42% respectively). It is surprising to see the low percentage of titles registered under the couple: only 4%, compared to the equivalent figure in the fifth quintile: 16%. This happens despite the fact that 70% of all household heads in the first quintile declared being married or living with a companion.

Table 3.1. Tenure status by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% in exclusive occupation	92	96	97	99	98	97
Tenure (5)						
- % who rent	18	17	25	26	21	21
- % who have a leasehold	2	5	7	8	4	5
- % who own with mortgage	2	2	7	10	15	7
- % who own and have fully paid	73	69	60	54	59	63
- % who are informal	4	6	1	1	0	3
Documents (only for property owners)						
- % with registered title	53	70	86	92	92	78
- % with unregistered title	6	4	5	3	5	5
- % with leasehold doc.	2	2	1	1	1	1
- % with property tax receipts	5	5	2	2	0	3
- % with service receipts	4	2	0	0	0	2
- % with no documentation	19	11	2	1	1	7
Reason for not having document (only for those who have weak documentation or none)						
- % declaring that procedure is time consuming and costly	12	18	NA	NA	NA	14
- % declaring informal/illegal tenure	83	73	NA	NA	NA	51
If there is title, to whom is it registered (%)						
- % hhlds having the title registered under couple	5	7	9	13	14	10
- % hhlds having the title registered under female head of hhld	41	40	36	41	41	40
- % hhlds having the title registered under male head of hhld	45	42	43	41	41	42

Source: World Bank, 2001.

¹¹ This figure comes from: 22% (% with weak documentation in all quintiles) * 70 (percentage of property owners in general) + 3% (informal) = 18%. Among the poor, the equivalent calculation yields: 40%.

3.20. The houses of the poorest are located on streets that are either not asphalted (87%) or do not have a direct vehicular access (35%), making access to poor neighborhoods difficult (table 3.2). In fact, this finding confirms the perceptions of poor households who declared “bad roads” their third most important problem (see previous chapter). The situation of the wealthy, although better in terms of the quality of the streets (only 5% of the houses are located on non- asphalted streets) is equally worrisome in terms of vehicular access (29% with no vehicular access). This, in turn, might be related to deficient transportation systems, which was selected as the third most important problem for the wealthy.

3.21 Although the majority of the poor’s houses are made of permanent materials (96%), their crowding level is very high with, on average, 4 persons sleeping in the same bedroom. In contrast, there is only 1 person per bedroom among fifth quintile households. In addition, a significant portion of the poor (80%) have to shower in the backyard or outside the property with little or no privacy. Similarly, 8% of the poor share the shower and bathroom with neighbors. Hygiene and promiscuity problems result from these crowded and limited housing conditions.

3.22 The poor pay a fifth of what the wealthy pay in rent, a considerable portion, given that aggregate consumption differentials are in the order of 1:7.6. To understand the reason for such a small differential in rent, we can look at the equivalent data in AMSS. While in Tegucigalpa rents go from \$34 to \$156, in AMSS they go from \$33 to \$287. Therefore, the small differential in rents between the poorest and the wealthiest in Tegucigalpa is explained by the relatively low rents paid by the well to do.

Table 3.2. Housing characteristics and monthly payment by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Type of street (%)						
- % houses located on street with no direct vehicular access	35	36	42	32	29	35
- % houses located in non asphalted streets	87	65	36	14	5	41
- % House with walls made of non- permanent materials	4	4	1	1	0	2
Number of bedrooms	1.9	2.4	2.7	3	3.3	2.7
Number of persons/bedroom	4	3	2	2	1	2
% having to shower in backyard or outside the property	80	50	21	6	0	31
% sharing the shower with neighbors	8	4	1	0	0	3
% sharing bathroom with neighbors	7	4	1	0	0	3
Payment for property (only renters)						
- Monthly payment in lempiras	517	884	1,393	1,998	2,363	1,592
- % paying in non monetary form	19	22	3	5	2	9

Source: World Bank, 2001.

3.23 Although most poor households do not divide their lots, some 7% do and in all cases the reason is to give it to a family member (100%). In other quintiles the rate of subdivision is lower but is nevertheless considerable. In total, 5% of all households declared subdividing their lots in the last five years (table 3.3), which means that some 2,000 properties are subdivided per year. Given the inefficiency of the cadastre, backlogs are growing exponentially.

3.24 Self construction is a very important alternative for housing acquisition among the poor, with 74% reporting being in this situation versus only 15% among the wealthy. It takes, on average, seven years for the poor to complete their houses. Once complete, few invest in housing improvement: only 19% of the poor declared improving their properties in the last five years when this percentage was 41 among the wealthiest. Those who made improvements distributed them almost evenly in increasing the floor area, and making internal and external improvements. The costs of the house improvements over a 5 year period go from L19,816 in the first quintile to L72,157 in the last quintile, that is in a ratio 1:4, again not so much of a difference, at least when comparing to the aggregate consumption differentials. This means that although few poor households improved their properties, those who did, spent considerable amounts of money.

3.25 The sources of financing for house improvements among the poor are: first, savings (62%), a distant but remarkable second source is loans from private banks (11%) and third comes help from family and friends (6%). Loans from public institutions only reach 1% of the poorest households. A greater percentage of the wealthy get loans from private banks (24%) and from public institutions (11%).

Table 3.3. Property subdivision and improvements by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% hhlds having subdivided their lot in the last five years	7	6	4	6	3	5
Reasons for subdividing (%):						
- % subdividing to give to a family member	100	55	50	67	50	70
Conditions of property when moved:						
- % with no constr. or partial constr.	74	54	37	25	15	42
- Years to finish the construction	7	7	8	4	7	7
Main house improvement in last five years:						
- % with no improvement	81	65	61	60	59	65
- % who increased the floor area	4	12	6	7	6	7
- % who did internal improvements	8	12	14	13	12	12
- % who did external improvements	3	6	11	13	16	10
Amount spent on house improvements in last five years (lempiras)	19,816	28,646	24,383	35,649	72,157	39,513
Source of financing for improvements (%)						
- % hhlds using savings	62	63	60	61	63	63
- % hhlds using loans from public institutions	1	10	15	10	11	11
- % hhlds using loans from private bank	11	17	21	23	24	20
- % hhlds using help from family/friends	6	5	4	5	1	4
- % hhlds using loans from employer	4	1	1	1	1	2

Source: World Bank, 2001.

4. BASIC SERVICES

4.1 Complete and consistent information on provision of urban services in Tegucigalpa is hard to come by, but all indications point toward serious deficits and a continued, growing gap in coverage and in quality of water, sanitation, and solid waste collection. Poor neighborhoods are frequently trapped in a vicious circle whereby they need legal land title to qualify for services, but where service installation is a requirement to obtain a title. Even when households get services, the deficiencies mean that they must still spend considerable time and money making up the differences. This chapter will cover each of these services, discussing their institutional setting, coverage, service quality, and pricing.

A. Water and sanitation

4.2 The institutional setting for water and sanitation in Honduras is characterized by uncertainty. Currently fragmented into a series of agencies, all of which appear to be in transition, the sector is going through another of its periodic reorganizations. The National Water and Sanitation Service (SANAA) was created in the 1960s to operate Honduras' water and sanitation systems on a national basis. Not all municipalities supported the move to centralize, however, and the transfer of assets to SANAA left some notorious gaps.

4.3 SANAA has introduced a policy to return aqueducts to local governments which demonstrate their management capability. So far, SANAA continues to own and to manage Tegucigalpa's water and sewer systems, but its activities have been hamstrung by its growing institutional uncertainty and its reduced limited investment budget for urban water and sanitation. Agreements reached with the IDB call for SANAA to turn over the water and sewer systems to the municipality within a flexible time frame. In addition, IDB is financing a series of studies leading to a possible future privatization of the capital city's water and sanitation system.

4.4 The institutional situation inspires little optimism. If the municipality is to take over water and sanitation operations from SANAA it will need considerable support to keep the existing systems going let alone improve the deficiencies it will inherit, or attempt to expand services to meet new demand. With a privatized system in the future, it is unclear who would be responsible for informal urban neighborhoods, which are estimated to include a large portion of Tegucigalpa's households.

4.5 A large percentage of Tegucigalpa's poorest households (38%) do not have access to SANAA's piped water services (table 4.1). This stands in sharp contrast with the equivalent percentage among the wealthy (2%). In fact, even the present coverage of 62% of the poorest households might be misleading since it includes the 130,000 persons (equivalent to 25,000 families or half a quintile) under SANAA's special program for new settlements (UEBD) who are served by pipe networks connected to holding tanks which are replenished by SANAA water trucks to provide (per regulation) one hour service every four days, or two and one half hours/week (box 4.1). Private operators are reported as a good option for the poor, with 20% of households in the first quintile using them, and 9% in the second quintile. Water provided through public and private trucks accounts for 19% of the poorest households. Use of bottled water is quite important in Tegucigalpa as a whole, but only 12% of the poor use this option as compared to 70% of the wealthy. The standpipe is not much of an option for the poor, with only 3% of households reporting using it. Refer to Annex 3 for a comparison of access indicators in different Latin American cities.

4.6 The poor have to wait longer to get a connection to the public aqueduct, and have to incur in extra costs. Over 20% of poor households reported having to wait more than 5 years to get their connection, a significant amount of time. This percentage decreases smoothly in the upper quintiles. The poor have to

rely on communal action to obtain their connections (58%), while some rely on private developers (15%) and personal action (13%). On the other hand, the wealthy rely almost completely on developers (85%). This explains the differences in installation payment: the poor pay for this service through special programs after settlements are in place, while the wealthy pay through the price of the property, as water and other services are included in the housing bundle.

Table 4.1. Water services by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Access to¹²:						
- % hhlds with access to SANAA	62	81	95	98	98	87
- % hhlds with access to private operator	20	9	3	1	2	7
- % hhlds using public/private truck	19	10	2	0	0	6
- % hhlds using bottles	12	29	49	63	70	44
- % hhlds using standpipes	3	1	0	0	0	1
% who had to wait more than 5 yrs to get the service	22	20	11	12	7	14
How was the service acquired (SANAA only):						
- % hhlds acquiring service through personal action	13	14	7	7	4	8
- % hhlds acquiring service through communal action	58	34	15	6	1	19
- % hhlds acquiring service through government action	4	6	9	4	2	5
- % hhlds acquiring service through developer	15	34	53	69	85	55
How much was paid for installation (SANAA only) (lempiras)	363	313	98	131	26	165
Hours of continuous water service (SANAA only):						
- % with less than 8 hours	55	37	32	23	22	31
- % with less than 24 hours	82	71	83	80	73	81
% who drink from water (SANAA only) without boiling (%):	32	23	11	2	3	12
m ³ of consumption per month per hhld (only for SANAA) ¹³ :	35	35	43	53	55	47
Monthly payment (lempiras)						
- SANAA	40	50	63	88	111	72
- Private operator						
- Other sources						
Deducted average tariff (only for SANAA) in lempiras ¹⁴	2.1	1.9	2.3	1.6	2.4	2
** Only for households who showed the receipt						

Source: World Bank, 2001.

¹² Households might have more than one source of water, therefore the sum of percentage access might be greater than 100.

¹³ Consumption data for other sources turned out to be unreliable (too wide a variation and many missing values). This is understandable since people keep better track of how much they pay than how much they consume. Without receipts, it is difficult to estimate consumption.

¹⁴ Ideally this analysis should discriminate by fixed and variable charges, since subsidies to the poor should only be included in the fixed portion, leaving the variable cost to reflect consumption decisions. Unfortunately the payment information is not separated this way and in the case of Honduras subsidies are applied to the variable portion.

4.7 The quality of SANAA's water services for the poor is very deficient. 55% of the first quintile households reported having the services for less than 8 hours per day and 82% for less than 24 hours per day. Although the wealthy are in a better situation, they are not fully covered either. In fact, intermittent distribution of water is a characteristic of urban life in Honduras. The most recent report from the Collaborative Water and Sanitation Working Group, headed by PAHO states that 24 hour service is found only in rural areas and in four secondary cities. Overall water service averages 6 hours per day in urban areas (box 4.1).

4.8 The quality of SANAA's water per se does not seem to be good either, judging from the large percentage of wealthy households that boil it before consuming it: 97%. On the other hand, the poor, who receive the same quality of water, reported boiling it in only 68% of the cases, presumably because the process consumes a fair amount of energy.

Box 4.1. The UEBD – special program for the poor

Since the mid 1980s the UEBD has been the main source of water and sanitation for low income neighborhoods. Financed through UNICEF by European donors, the UEBD has established a team of "promoters" in SANAA who both educate marginal communities in water conservation and sanitation and organize water committees to develop and manage community cistern programs. Once a project is defined, local water committees must raise between 10 - 15% of the total costs and agree to contribute a certain amount of manual labor. The committees repay remaining investment costs to the UEBD revolving fund for water and sanitation on an interest free basis over an 8 to 10 year period. The water committees also calculate and collect monthly charges from households according to both the amortization of investments and operating costs, including the water bill from SANAA or from private providers. The UEBD claims to have developed over 130 projects benefiting a total of 160,000 persons with house connections based on alternative water supply systems.

But in spite of its much needed assistance, the program is far from perfect. Households served through the program pay a higher rate for water, and receive less than those connected to the aqueduct even though they represent a lower income population. SANAA charges five times its lowest domestic rate (L3.5/M3 instead of L0.7/M3) for water trucked to the community holding tanks, and the water committees charge residents for additional maintenance and distribution costs. The UEBD reports that under the alternative systems "marginal" communities normally receive water twice a week or every four days for an hour at a time, depending on the service methods.

What does it mean to get water one hour every four days ?

In the barrios of Abraham Lincoln and Centano II where the UEBD has installed a holding tank, a well, and a pump to pipe water to each home, residents count on three liters per day per family member. Three liters are used mainly for cooking and drinking (after boiling for coffee or soups) and is not enough to wash clothes or for bathing. Residents in Abraham Lincoln are fortunate to have a creek close by where they can wash clothes, but for most it means at least a 20 minute walk down to the creek and back every day. Residents employed as domestics or in tourism can sometimes bathe at their place of work, but most manage hand rubdowns in the back yard with a half to a liter of water taken from a storage tank or drum. At L30 - 45/month (\$2.10 - 3.40) residents are paying approximately L4 - 7 (\$0.30 - 0.50) per cubic meter. While considerably less than the cost of a cubic meter in New York, water in Abraham Lincoln and Centano II still costs four to ten times what SANAA charges for (albeit highly subsidized) water in neighborhoods connected to its aqueduct. And, residents in Abraham Lincoln and Centano II supplement their piped water supplies with purchases from private water tankers for prices estimated at ten to fifteen times SANAA's standard price. They tend to rely on Coca Cola or bottled drinks to supplement thirst and these, as diuretics, generally lead to more thirst, or susceptibility to congestion and illness in the long run.

Source: Author's compilation, 2001.

4.9 SANAA's tariff structure is similar to ANDA's. There is a fixed minimum charge and an additional variable charge that depends on the m³ consumed. The unitary fees by m³ are discriminated by land use categories including residential, commercial, industrial, and government. Water from standpipes has a separate tariff configuration. Sanitation services are charged at 25% of the total water charge. In general tariffs are extremely low and do not cover operational services. In fact SANAA depends almost entirely on subsidies from the Central Government.

Table 4.2. Sanitation of grey and waste waters by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% disposing of grey waters in backyard, street, ravines						
-Shower	55	29	7	2	0	19
-Laundry	55	29	7	2	0	19
-Cooking	54	30	8	2	0	19
Place where hhld members urinate/defecate:						
- % having sanitary facility inside the house	25	56	81	94	100	71
- % having sanitary facility or latrine in backyard	69	40	18	6	0	27
- % urinating/defecating out of the property	6	3	0	0	0	2
Method to dispose of waste waters (%):						
- % using sanitary facility connected to public sewer	37	66	90	98	99	78
- % using sanitary facility connected to private sewer	4	2	1	1	0	2
- % using sanitary facility connected to septic tank	0	0	0	0	0	0
- % using latrine	49	25	7	0	0	16
- % using backyard, street, river, etc	10	7	2	1	0	4
Year in which system was acquired (SANAA only)						
- % who acquired it before or on 1980	8	9	8	8	9	8
- % who acquired it between 1981-1990	22	8	5	7	7	8
- % who acquired it between 1991-2000	10	7	6	2	0	4
- % who do not know	61	76	81	83	84	79
Acquisition cost (SANAA only) (lempiras)	1,404	1,244	978	987	229	1,102
How was the service acquired (SANAA only) (%)						
- % hhlds acquiring service through personal action	18	15	10	9	5	10
- % hhlds acquiring service through communal action	38	22	11	6	1	12
- % hhlds acquiring service through government action	6	6	6	3	3	4
- % hhlds acquiring service through developer	23	39	49	62	75	55
Has experienced the following problems with mpal sanitation system (SANAA only) (%):						
- % experiencing bad smells	8	9	13	8	7	9
- % experiencing overflowing	6	1	2	2	2	2
- % experiencing flies	12	7	9	5	4	7
- % experiencing no problem	74	82	76	83	87	82

Source: World Bank, 2001.

4.10 The poor pay almost as much as the wealthy per cubic meter of water consumed: L2.1/m³ versus L2.4/m³. This might be explained by the fact that residential tariffs are differentiated only by consumption and that subsidized tariffs, corresponding to less than 20 m³ consumption apply only to a small portion of the first quintiles households. One thing is clear, though, if the poor can pay water at L2/m³, certainly the wealthy can pay much more for it. Consumption in cubic meters shows an expected trend, with households in the lowest quintiles consuming much less than those in the higher quintiles.

These numbers are highly reliable as interviewers had strict instructions to only take this information from the water receipts. Only 245 households, of a sample of 1200, showed the receipt. Monthly payments to SANAA go from L40 to L111, that is, following a 1:2.8 ratio. Information on monthly payments for other sources was impossible to obtain in Tegucigalpa and therefore it is unfeasible to verify the hypothesis that alternative water sources are more expensive, particularly for the poor.

4.11 With few sanitation options, more than half of the poorest households dispose of their grey waters by throwing them in the backyard, street or nearby ravines (table 4.2). Considering that this percentage might be an underestimate, the sanitation of grey waters in Tegucigalpa appears as an important problem affecting the poor.

4.12 A large percentage of poor households do not have a sanitary facility inside their house (75%) and most rely on latrines (69%). In contrast 100% of the fifth quintile households have bathrooms inside their houses. As many as 10% of the first quintile households, or some 4,000 families, admitted throwing their waste waters in the backyard, river, or street, while a majority (49%) use the latrine as their disposal method. Only 37% of the poorest are connected to the public sewer.

4.13 As with water services, the poor had to wait longer and incur in extra costs to get a sanitation connection. First, 32% of the poorest households reported getting their connections in the period 1981-2000, while this percentage is only 7 among the wealthiest. Second, the service was acquired mostly via communal action among the poor (38%) while for the wealthy the most common case is via developers (75%). Third, the poor reported paying much more for a sanitation connection than the wealthy did. This is explained by the fact that the poor obtained their connections, for the most part, after being settled for several years, while the wealthy bought their properties with a full array of services, including sanitation, and therefore these costs are included in the property price.

4.14 Over 80% of all households report no problem with their SANAA sanitation service. There is variation across quintiles with the poorest complaining less than the wealthiest. Among the problems reported the most important for the poor is flies: 12%, followed by bad smells: 8% and overflowing: 6%.

B. Electricity

4.15 Similar to water and sanitation, provision of electricity is also hampered by institutional uncertainty. There has been political discussion on whether to dismantle the Empresa Nacional de Energía Eléctrica (ENEE), created in the 1960s, in this case to form separate companies for production, distribution, meter-reading and billing, and to sell or to grant a concession to private operators. While concession or contracts for the major areas are advancing slowly at best, ENEE's meter-reading functions have been outsourced since the beginning of 2000. While the new scheme places rural communities under the responsibility of ENEE it does not take the informal urban communities into account.

4.16 Unlike water and sanitation, electricity does not appear to enjoy attention from NGOs or external donors. NGOs consulted affirm that most settlements over ten and fifteen years old have electricity (illegal or informal) regardless of their legal situation. But like ENEE, they give little assurance of the situation of informal communities developed in the last decade.

4.17 For the past five years ENEE has concentrated investments in rural electrification with the support of the *Fondo de Electrificación Rural*. New connections in urban areas are financed by owners, mainly real estate developers. ENEE cites high investment costs and illegality as the main stumbling blocks for increasing energy service in urban areas. Even when legal and planning requirements are fulfilled ENEE will install electric connections only within 300 meters of an existing post. Costs of

extending principal lines must be borne by consumers. Meters are rented for L50/month. Once connected, households pay according to usage.

4.18 Although a great majority of poor neighborhoods has street lighting (97%), households had to wait a long time to get the service (table 4.3). In fact, as many as 47% of the first quintile households and 24% of the second quintile households count on this service only in the last five years. Access to electricity is very high, with 100% rates in quintiles 3, 4 and 5. In the first quintile 6% of households do not have any electricity, while this is the case for only 2% in the second quintile. While water and sanitation are absent in large segments of the poor settlements, electricity is not. The reported source of electricity, in most cases, is the electricity company. Practically nobody admits to having informal connections. Nevertheless 9% of the poorest households admit not having a meter, a possible indication of informality.

Table 4.3. Street lighting and electricity by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
- % with public lighting	97	99	100	100	100	99
- % having street lighting only in the last 5 years	47	24	13	3	0	22
- % with electricity in house	94	98	100	100	100	99
Source of electricity:						
- % getting electricity from the electric company	97	96	100	100	100	98
- % getting electricity from neighbors	1	0	0	0	0	0
- % with informal connection	1	4	0	0	0	1
Existence of an electricity meter :						
- % having an electricity meter that works well	90	94	99	99	100	96
- % having an electricity meter that does not work	1	0	0	0	0	0
- % not having electricity meter	9	6	1	0	0	3
% having experienced blackouts in last 6 months	75	73	70	66	72	71
Problems with electricity service:						
- % having lost an electric appliance due to changes of voltage	19	21	22	24	27	22
- % experiencing insufficient voltage to operate certain appliances	5	7	6	2	4	5
- % with variable light intensity	9	12	14	10	10	11
- % with no problem	68	61	59	63	60	62
- Payment per month (lempiras)	104	163	204	297	327	222
- Consumption (Kwh)	142	211	238	254	283	224
- Deduced tariff (lempiras/Kwh)	1.6	0.8	1.5	1.4	1.9	1.4
* only if receipt was shown						
What happens if does not pay the bill:						
- % whose service is cut	93	96	99	97	99	97
- % who have to pay a penalty	0	0	0	0	0	0
- % who are not affected	7	4	1	2	1	3

Source: World Bank, 2001.

4.19 Around a third of the poorest households (32%) reported having one problem or another with the electricity service. Changes of voltage, insufficient voltage, and variability of light intensity are the most frequent problems. As ENEE acknowledges, quality of service varies according to the type of

connection. The “illegal” and clandestine services tend to be intermittent and weak. Electricity sold in block to poor neighborhoods is also weak.

4.20 As for pricing issues, electricity rates are designed to subsidize consumers using less than 300 kwh/month. The resulting system favors middle and high income households who make up 85% of the beneficiaries of the subsidy, according to a Poverty Diagnostic carried out by the World Bank. The regressive nature of the subsidy means that ENEE, which receives L280 million/year in transfers from the national budget to match the subsidy, does not stand to gain one way or another from increasing efficiencies to reduce intermittent supplies. Nor does it stand to lose from increase connections in low-income neighborhoods. The household survey shows that the poor pay almost as much as the wealthy per Kwh consumed: L1.6/Kwh versus L1.9/Kwh.

C. Solid waste collection

4.21 Institutional Setting. Garbage collection and disposal is managed by the Municipality of Tegucigalpa but, like the three services previously mentioned, is also in transition to a system of private sector participation. A study currently underway, financed by an IDB loan, recommends private concessioning of garbage collection. Tegucigalpa is inclined toward a concession option in the hopes of reducing its L56 million annual expenditure for garbage collection. The study proposes that neighborhoods with unpaved access roads or in particularly hilly areas would rely on microenterprises to collect their garbage and deliver it to an intermediate transfer point. This proposal, while attractive in theory, could be difficult to put into practice. Research by the World Bank shows that microenterprises can be highly effective at garbage collection, and even disposal in low-income neighborhoods, but that they need a significant percent of high-income clients to survive economically.

4.22 Unlike in AMSS where the municipal governments have invested in a long-term solution for solid waste disposal at the metropolitan level, Tegucigalpa has only one legal dumping site, an open landfill with no sanitary control, with unrestricted access, and reaching full capacity.

4.23 The coverage of door to door municipal solid waste collection services for the poor is low (41%). In fact quintiles 2 and 3 also have low coverage rates (65% and 78% respectively). In sharp contrast, 95% of the fifth quintile households are served (table 4.4). Municipal collection at a transfer point is an alternative for the poor, with 17% of households in the first quintile using it. But the most surprising result is the rate of households in the first quintile who admit throwing garbage in lots, rivers, ravines, backyard or burning it: 49%. In AMSS the equivalent number was only 3%. Considering that these percentages are underestimates, since people do not like to admit following these practices, solid waste collection appears as a serious problem for poor Tegucigalpans.

4.24 These deficiencies translate into more hygiene problems in the poorest neighborhoods. These problems, in order of importance, are: piling of garbage (32%), bad smells (20%), and flies (12%). Tariffs are hardly mentioned as a problem by households in all quintiles.

4.25 Monthly payment for the door to door service goes from L17 to L48 (\$1.1 to \$3.2). The differential is rather small, with the wealthy paying, on average, only 3 times what the poor are paying, in spite of having an overall aggregate consumption 8.5 times larger. These tariffs are very low, which is probably why nobody complains about them. Municipal collection at transfer point and private collectors are substantially cheaper, although payments are quite variable among consumption groups.

Table 4.4. Solid waste collection service by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Service provider:						
- % having door to door municipal collection	41	65	78	91	95	74
- % having municipal collection at transfer point	17	15	12	6	3	11
- % having on private collectors	0	0	2	0	1	1
- % who throw solid waste in lots, rivers, ravines, backyard or burn	49	21	9	3	0	16
Problems of solid waste collection service (regardless of collection type):						
- % experiencing piling of garbage	32	31	24	16	15	24
- % experiencing bad smells	20	13	12	9	10	12
- % experiencing flies	12	11	12	9	6	10
- % experiencing rats	3	7	8	5	7	6
- % who think the tariff is too high	1	0	1	2	0	1
- % with no problem	30	34	40	57	60	44
Monthly payment for:						
- Door to door municipal collection	17	24	28	47	48	36
- Municipal collection at transfer point	2	13	11	6	4	8
- Private collectors	0	13	53	0	27	33

Source: World Bank, 2001.

D. Drainage

4.26 **Institutional Setting.** As in AMSS, the responsibility for maintaining and improving the drainage system is not clearly assigned. In principle, SANAA is in charge of sanitation and the District is in charge of drainage. Nevertheless the channels are sometimes mixed, creating confusion in terms of who is to maintain them. Following hurricane Mitch access to storm water drainage and landslide mitigation measures have increasingly figured in the municipal agenda. Although low income neighborhoods are particularly vulnerable to floods and landslides and Tegucigalpa's neighborhoods are particularly precarious, storm water drainage and other mitigation measures has yet to be addressed.

4.27 A considerable 17% of the poorest households reported having suffered damages from floods in the last five years (table 4.5). Hurricane Mitch is probably the cause of most of these losses. Landslides, often resulting from floods, have been even more destructive, affecting 22% of the poorest population. As in AMSS drainage appears as an important problem affecting the poor.

Table 4.5. Drainage issues by household consumption quintile in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% who have suffered from physical damages due to:						
- floods	17	17	13	12	7	13
- landslides	22	21	15	12	9	16

Source: World Bank, 2001.

5. PUBLIC TRANSPORT

5.1 A large percentage of Tegucigalpas (over 80%) depend on public transport to carry out their daily activities. Unfortunately, the public transport system is highly inefficient. Services are supplied entirely by the private sector, with the central government regulating and providing substantial subsidies. Despite these subsidies, the quality of bus services is poor, coverage is limited, accident rates are high, and congestion, especially in downtown, is severe. Hurricane Mitch worsened an already deteriorated road network and destroyed some of the bridges in the central area of the city. This has also aggravated congestion and made commuting by citizens, especially the poor, a major problem. This chapter covers: institutional issues, the suppliers of public transport, costs and pricing, and an analysis of the household survey results.

A. Institutional setting

5.2 The agency in charge of influencing provision of public transport services in the city and in the country, is very inefficient, overstaffed, and has very limited resources. The Directorate General of Transport (DGT) in the central government's Secretariat of Public Works, Transport and Housing (SOPTRAVI) has a total of 250 people including staff located in the three regional offices in La Ceiba, San Pedro Sula and Choluteca. The DGT is responsible for establishing bus routes, granting operating permits, and administering the subsidy system. Technical decisions are made on political grounds, especially the granting of permits. The DGT's offices were badly affected by hurricane Mitch: computers, disks, and paper files with transport planning information, route maps, operator records, were all destroyed. Consequently planning activities have been seriously affected and illegal operators have taken advantage of the situation to operate buses without permits. A move to decentralize public transport provision has been under discussion for some time now but there has not been political will or consensus to carry out such a reform.

5.3 The municipality of Tegucigalpa has no direct control over public transport but does influence the quality of services much more than do municipalities in Metro San Salvador. The municipality is responsible for the maintenance, operation and construction of roads, as well as of traffic lights, and signage. It also controls policies influencing land use, bus stops, and parking. IDB's municipal development project includes technical assistance for: (i) road infrastructure planning; (ii) improvement of contracting procedures; and (iii) the creation of a central district transport fund to channel all sector related incomes and prioritize their use according to agreed priorities. The project's investment program will finance the rehabilitation of the road network segments in poorest condition and new construction according to the municipality's investment plan.

B. Provision of public transport

5.4 As noted earlier, public transport services are provided entirely by the private sector. A majority of these private operators own one or two vehicles; only about seven operators own larger fleets. Most operators have organized themselves into cooperatives or syndicates but there are a significant number that are not affiliated to any organization and operate independently. COTRACOPL and ITHSA are two of the larger syndicates, with 115 and 165 members, respectively, and a fleet of about 300 buses each.

5.5 Taken together, there are about 40-65 subsidized public transport "enterprises" (each syndicate counting as one entity) with an estimated fleet of 800-1,015 regular buses. The fleet is old and obsolete – only 1% of the buses are less than five years old, 67% are about 12 years old and 32% are over 20 years old. Many of these are used second-hand buses imported from the United States. Government officials estimate that about 85% of the fleet is in bad condition due to age and poor maintenance.

5.6 The regular buses operate on 80-100 routes which can be divided into four major zones – south (101 buses), southeast (145 buses), east (232 buses), and northeast (172 buses). Almost all routes are radial, originating and terminating just outside the city business district (CBD). Before hurricane Mitch, all bus routes passed through the CBD. After the hurricane the government banned buses from going through the city center. For many travelers this has increased the time and cost of their trip – they now have to change a bus and need to pay two fares. Many passengers opt for walking rather than pay the extra cost.

5.7 In addition to the fleet of subsidized regular buses, there are about 500-600 minibuses, 1,250-2,000 collective taxis, and 4,500 regular taxis. Minibuses connect the peripheral settlements to each other and are increasingly providing service to the city center as well; their fleet is increasing rapidly. Collective taxis operate on about 26 fixed routes and charge a flat rate per passenger. Although they do not receive operating subsidies from the government, minibuses and collective taxis are an important part of the public transport system and often compete directly with the subsidized bus service.

5.8 Previous studies of public transport in Tegucigalpa emphasize that the ownership structure and operation of the bus system is highly problematic and serves as a major obstacle to reforming and improving service. Specifically, the existence of hundreds of individual owners or firms with one or two buses makes the planning and coordination of bus services extremely difficult. Furthermore, many vehicle owners have moved toward a system where they lease the bus for a fixed daily fee (e.g. L300/day) and the driver and his assistant retain the fares that they collect. For the owners, this approach eliminates the problems associated with reporting and controlling total collections. However, it results in a highly fragmented system, with each bus operating as an independent business run by the driver and an assistant working on a short term goal of maximizing passengers and fare collections per trip. Under this scheme owners ignore the profitability of their buses as they really do not know the income collected per day.

5.9 In addition, the DGT has awarded many more route permits than were technically needed. With the loss of information after hurricane Mitch, this situation has been aggravated, with many buses circulating without permits, and evading registry taxes. This over supply gives operators no incentive to improve service and fleet maintenance.

5.10 The current system suffers from the following kinds of operational problems. In competing for passengers, drivers tend to disregard traffic rules and often compromise passenger safety. Drivers also show little regard for designated routes, schedules and bus stops. At a broader level, the link between costs, profits, and service quality is severed. Having lost control over costs and revenues, owners have little incentive to make significant investments in maintenance and in improving service quality. Further, in such a fragmented system it is hard to match demand and supply – thus, on certain routes there is excess supply whereas in others there is inadequate supply. Similarly, during peak hours there is often a supply deficit and at non-peak hours and during weekends there appears to be excess supply.

5.11 A public transport report financed by the French Ministry of National Education and Research notes that in certain market segments and routes there is excessive competition, not only among regular buses but also between different modes such as buses, minibuses and collective taxis. That is, different modes of transport are competing in similar routes and markets. At the same time, there is not sufficient diversity in supply to satisfy demand in different segments of the market. This analysis helps reconcile seemingly conflicting assessments – the government's notion that there is excess supply and JICA's argument that public transport services in the city are insufficient.

5.12 It is estimated that, in 1995, the average revenue was L178 per day per bus and that the average profit rate was 26%. According to government officials and bus owners, demand and passenger volumes have fallen after hurricane Mitch. Before the hurricane, passenger volumes were at about 1,150

passengers per day per bus and they appear to have dropped to about 850 passengers per day per bus. This is in part because buses are not allowed within the CBD and have lost passengers who were traveling short distances to and within the city center. Bus owners claim that profit rates are low and that loss-making firms are not uncommon.

5.13 Although there are terminals for buses and minibuses at the starting or ending points of the routes, they do not have infrastructure such as bus waiting area, designated entrance or exit, and service facilities for passengers. Most bus stops do not have a sheltered waiting area and information boards. Since 1998 the government has started granting concessions to private firms to build fiber glass bus shelters at bus stops. In exchange for financing and constructing the bus shelter, the private investor gets the right to advertise at this location for 20 years.

C. Cost and pricing issues

5.14 The fare for regular bus service is established by the government and since September 1999 passengers have been paying L1.15 (\$0.08) per trip. The government contributes an additional L0.50 per passenger as an operating subsidy. The tariff does not vary with distance and is not based on actual operating costs. By comparison, minibuses charge a fare of L1.3-2.0 depending on the route and distance, collective taxis charge a flat rate of L4.0, and special service buses that guarantee a seat for each passenger charge L3.0 per person.

5.15 The subsidy amounts to about L550 per day per bus and it is calculated at L0.5 per passenger assuming a volume of 1,100-1,150 passengers per day.¹⁵ The financial cost of the subsidy is borne directly by the Ministry of Finance and is in addition to the city's annual budget. In 1999, this subsidy cost the central government L114 million (\$10 million) – this is a highly significant amount given that Tegucigalpa's entire annual budget is about L340-400 million.

5.16 SOPTRAVI's DGT administers and monitors the subsidy system which requires that each subsidized bus operates at least 20 days per month and completes four round trips per working day. Currently about 80 government employees are involved in administering the subsidy system, including a team of field staff who monitor the daily volume of passengers and the number of trips completed by the buses. Administration of this subsidy costs SOPTRAVI about L4.0-5.0 million per year. The fact that the subsidy depends on the number of trips rather than on the number of passengers, raises the number of low occupancy trips.

5.17 SOPTRAVI estimates that to ensure cost recovery operators need to collect about L12 per vehicle kilometer to recover costs. The cost recovery fare depends on the number of passengers but is estimated to be in the range of L2.0-2.5 per person. For newer buses, higher fares would be necessary to ensure cost recovery.

5.18 The only other estimates that contribute to a calculation of operating costs are from the French study. This study notes that buses travel an average of 123 km/vehicle/day and consume an average of 18 gallons of fuel per day. The average round trip takes one hour and most buses complete four round trips per day.

¹⁵ The approximate annual cost of the subsidy can be calculated as: 1,100-1,150 passengers/bus/day * 20 days * 1,000 buses * 550 Lmp/bus/day = L132-138 million.

D. Results of the household survey concerning transport

5.19. Although a great percentage of Tegucigalpans own a car (41%), there are enormous differences across consumption quintiles, with only 8% owning a car in the first quintile while the equivalent figure is 79% in the fifth quintile (table 5.1). In fact, the break is really noticeable between quintiles 2 and 3 where car ownership almost triples. The rate of bicycle and motorbike ownership is low in the entire city. Several reasons explain why bicycles are not used more in Central American cities: (i) uneven topography; (ii) unsafety; and (iii) the lack of infrastructure such as bike paths and bike parking facilities.

5.20. The poor rely almost completely on public transport for their daily commutes: 97% of the first quintile households declared that at least one family member uses public transport on a regular basis. Although overall use of public transport is high in other quintiles as well, among the wealthy the percentage drops to 50%. The nature and magnitude of demand for public transport in Tegucigalpa has not been studied extensively and is not well understood. A 1995 study of public transport in the city included a person trip survey of 26,750 people which showed that buses were the most important mode of transport and accounted for 44 % of all trips (JICA 1996). This study also found that the average number of boarding passengers was about 100 persons per bus per trip and the average number of passengers was about 25 persons per bus.

5.21. Non users of public transport say that they do not use the bus because they prefer to use their own vehicle. Around 21% of all the households that do not use the bus say that it is unsafe and another 18% say it is not comfortable. Among the bus users and non-users, on the other hand, the first priority actions that would improve the service are: improve security (27%), reduce crowding (24%), reduce waiting time (14%), get new buses and maintain them well (13%), add routes (11%) and decrease the fare (10%). The order of priority of these actions is similar in all quintiles.

Table 5.1. Vehicle ownership and use of public transport by household consumption quintiles in Tegucigalpa, 2000

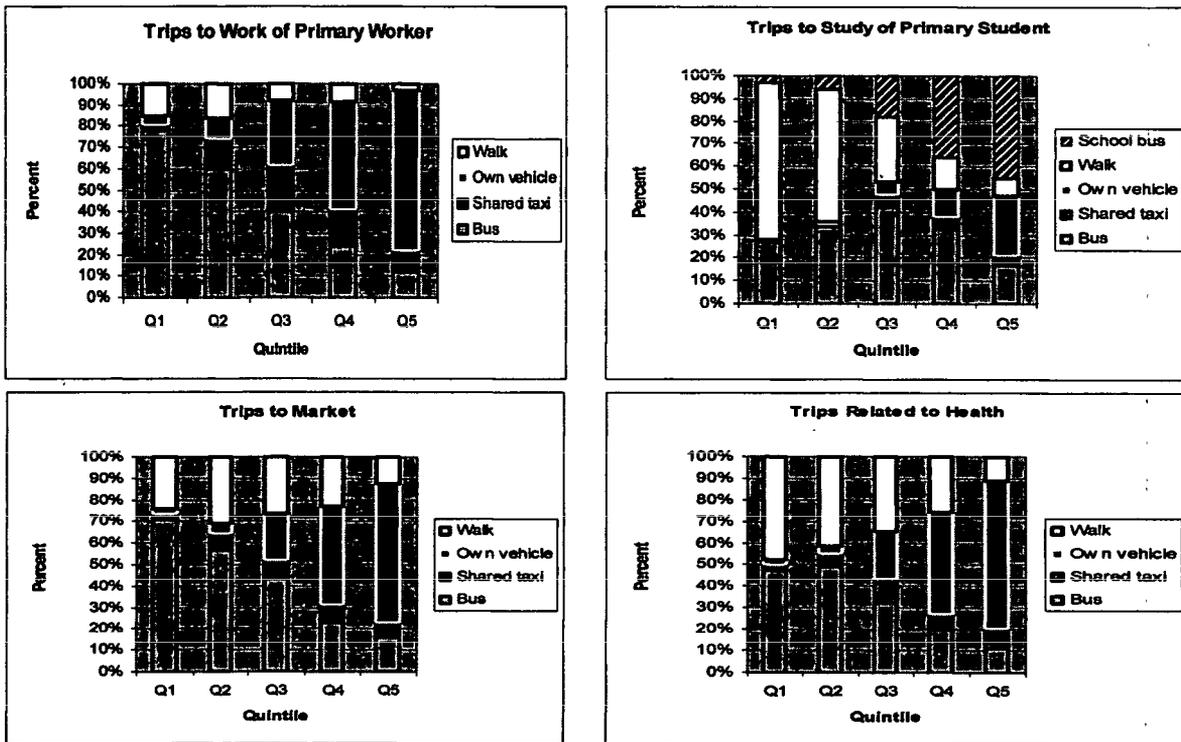
Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% households owning a vehicle	12	21	42	65	80	44
Type of vehicle owned (%):						
- % owning a bicycle	4	6	3	5	3	4
- % owning a car	8	16	40	63	79	41
- % owning a motorbike	0	2	2	1	2	1
% hhlds in which at least one household member uses public transport on a regular basis	97	94	90	78	50	82
Major problems of public transport (according to non-users):						
- % who prefer to use own vehicle	0	7	17	46	41	36
- % who think that the service is unsafe	0	13	25	17	25	21
- % who think that the service is not comfortable	0	20	13	23	18	18
Actions that would improve the service:						
- % who think the first priority is to reduce waiting time	14	15	14	15	13	14
- % who think the first priority is to reduce crowding	20	22	27	21	30	24
- % who think the first priority is to add routes	12	12	12	11	10	11
- % who think the first priority is to decrease the fare	19	10	6	9	4	9
- % who think the first priority is to improve security	19	28	28	32	29	27
- % who think the first priority is to get new buses and maintain them better	16	13	14	11	12	13

Source: World Bank, 2001.

5.22 The poor depend on the bus for most of their daily trips, particularly to commute to work (78%), to go to the market (71%) and to go to the health center (48%). For all of these trips, walking is an important alternative: 15% walk to work, 24% walk to the market, and 48% walk to the health center. In contrast, the wealthy rely on their car for all trips except those to school: 75% use the car to go to work, 65% to go to the market, and 68% to go to the health center (graph 5.1).

5.23 When it comes to commuting to study, the mode of choice is walking for the poorest, with a 69% rate, and the school bus for the wealthiest, with a 45% rate. This is related to the fact that most of the poor children go to public schools located in their neighborhoods, while most of the wealthy kids attend private schools that have bus service.

Graph 5.1 Transport mode by household quintile and by purpose of trip, Tegucigalpa, 2000



Source: World Bank, 2001.

5.24 Except for going to study, the poor travel longer distances than the wealthy (table 5.2). In the case of trips to work, the poor have to travel for 37 minutes, on average, while the wealthy take 32 minutes. Trips to the market and to the health center are also longer for the poor: 32 minutes versus 19 and 28 minutes versus 22, respectively. Trips to study are the only ones that are shorter for the poor (17 minutes versus 27), probably because poor children attend public neighborhood schools, while wealthy children go to more distant private schools

5.25 The poor have to spend a very long 18 minutes, on average, to walk to the boarding point and wait there, approximately 5 minutes more than what the wealthy spend. Adding these 5 minutes to the 5 minutes difference in traveling, makes a 20 minute difference per day, or a 100 minute difference per week. Fares increase considerably with consumption levels because shared taxis are used much more in

quintiles 3, 4 and 5, than in 1 and 2. The majority of the poor workers commute to work six times a week: 60%, while most of the wealthy workers do so 5 times per week: 45%.

Table 5.2. Distance, time, fares, and frequency of trips by household consumption quintiles in Tegucigalpa, 2000

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Distance to destination (min)						
-To work	37	35	29	33	32	33
-To study	17	18	24	29	27	23
-To market	32	29	23	20	19	24
-To health center	28	26	21	23	22	24
Minutes spent on waiting and walking time to stop (only to go to work (min))	18	17	13	15	13	16
Fare (only for public transport to go to work) (lempiras)	4.7	6.5	11.2	23.6	15.1	10.6
Frequency of trip to work						
- % who do the trip 5 times/week	15	27	37	43	44	33
- % who do the trip 6 times/week	60	39	35	33	28	39
- % who do the trip 7 times/week	10	14	9	7	6	9

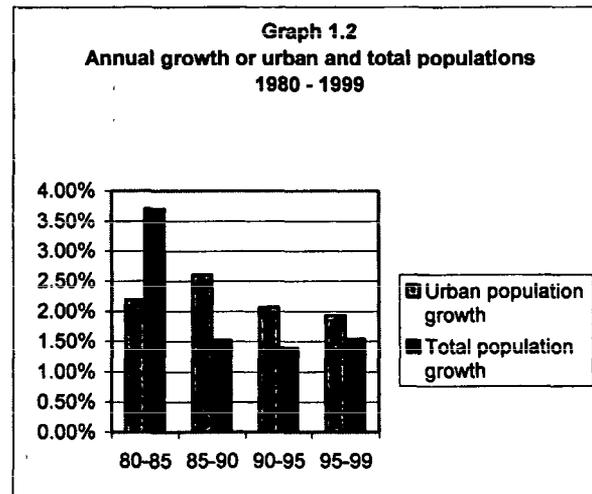
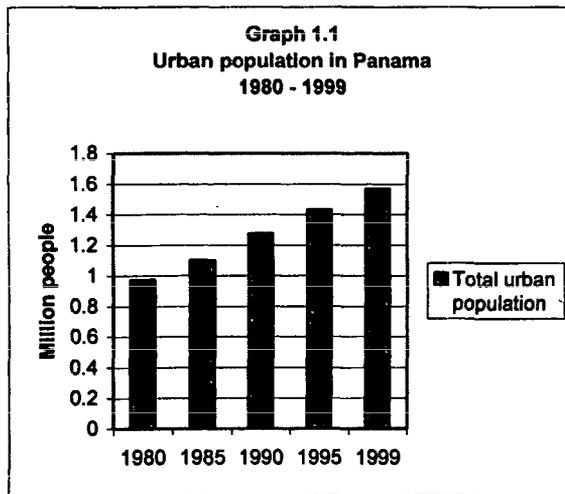
Source: World Bank, 2001.

III. PANAMÁ CITY AND SAN MIGUELITO

1. URBANIZATION AND POVERTY IN PANAMÁ

1.1 In comparison to other countries in the region, little is known about Panamá's urban sector. By 1980 54% of its population lived in urban areas, for a total of slightly less than a million people. By 1999 56% of its population was urban, equivalent to 1.5 million (graph 1.1). Although urbanization has continued at a steady pace in Panamá, the rate of growth has been rather moderate. Therefore the dynamics of urbanization are quite different to those of El Salvador and Honduras where the period 1980-1999 represented significant urban growth. In terms of annual growth, the urban population has been growing at higher annual rates than the total population, except in the period 1980-1985, but the gap has been decreasing steadily (graph 1.2).

1.2 An interesting characteristic of urbanization in Panamá is that there is a high degree of urban primacy, that is, most of the urban population is concentrated in one city. It is estimated that 41% of the country's population lives in the largest city, Panamá City. In comparison, in El Salvador that indicator is 22% whereas in Honduras it is 15%. These percentages are even higher if suburban areas are included.



Source: World Bank, various years.

1.3 Panamá is mainly a service economy, with strong links to international markets, primarily through banking, legal services, insurance, shipping, and trade, particularly in the Colon Free Zone. Services represent 76% of GDP, while agriculture is only 10% and industry is 15%. The Panamá Canal has played a key role in the country's economic development; and will play an equally important role in its economic future. Panamá assumed full control of the Canal on January 1, 2000 through the Panamá Canal Authority (PCA). PCA absorbed the staff and assets of the previous administrator, the Panamá Canal Commission (PCC), a non-profit US agency. Long before the official handover of the Canal administration, the US had been returning to the Government of Panamá vast extensions of land in the Interoceanic Region, in total 540 square miles. The autonomous Interoceanic Region Authority was created in 1993 to foster development in the area and to attract foreign investors.

1.4 Poverty was analyzed extensively in 1997 through an Living Standards Survey ("Encuesta de Niveles de Vida", ENV) carried out by the Ministry of Economy and Finance, with support from the World Bank. The study found that poverty is more a rural phenomenon in Panamá, with 65% of the rural population under poverty, while this percentage is only 15% in urban areas. In absolute numbers this means that there are 230,000 urban poor, who constitute 23% of the total country's poor. But addressing poverty in Panamá's cities is important because: (i) some 25% of the urban population is clustered just

above the poverty line and are thus highly vulnerable; and (ii) migration to urban centers, particularly to the Panamá City, will continue in the years to come.

1.5 But as important as poverty is the very high inequality in Panamá: despite a relatively high GNP per capita of \$3,080, the Gini coefficient was 0.6 in 1997, among the highest in the world, with a Gini coefficient of 0.58 in rural areas, and 0.53 in urban areas.

1.6 The metropolitan area of Panamá City is made of the country's capital and the urban areas of San Miguelito, Arraijan and Chorrera, with a combined estimated population of over one million. In the last five years the population of Panamá City has been growing at 2% per year. The surrounding areas have been growing faster, particularly Arraijan, where many invasions have taken place since the reversion of lands from the US.

1.7 According to the 1997 ENV, 12% of the population in Panamá City and San Miguelito (PCSM) fall under a poverty level of \$905 aggregate consumption per capita per year. Descriptive statistics of the welfare measure are presented below:

Total consumption per capita per year (dollars)

Minimum	\$ 223
Maximum	\$23,324
Mean	\$ 3,547

Population under different levels of consumption

% under 1 dollar per capita per day	0.7%
% under 2 dollar per capita per day	4.4%
% under 3 dollar per capita per day	13.8%

1.8 On average, citizens in Panamá City and San Miguelito urban area (PCSM) live on \$10 per capita per day, with the poorest having to survive on 61 cents per capita per day, and the wealthiest consuming almost \$64 per capita per day. Around 14% of the population live on \$3 per capita per day.

2. LAND AND HOUSING

2.1. Panamá is a highly centralized country in which most land and housing policy decisions take place at a national level, with practically no input from local authorities. Conditions in the housing sector in Panamá are mixed. On the one hand, there is a lack of policy direction and a considerable number of migrants in need of new housing. On the other hand, there are some positive conditions: (i) low inflation; (ii) high per capita income relative to Central America; (iii) a well-developed banking sector; (iv) an aggressive construction sector; (v) a program of national housing subsidies that, although not well targeted, has increased housing affordability for the formally employed; and (vi) the availability of residential land. This chapter is organized as follows: in a first section the institutional setting is described, in the second the structure of land and housing supply is explored, the third section summarizes the subsidies and financing issues, and in the last section some household indicators are discussed.¹⁶

A. Institutional setting

2.2 Panamá's institutional setting for land and housing markets is in need of important reforms to decentralize and modernize the sector.

2.3 The Ministry of Housing (MIVI) has been dedicated to executing housing programs, when its main function should be setting policies and managing the regulatory framework. Unlike most national housing agencies in Latin America, MIVI is in charge of: (i) applying preferential interest rates for subsidized mortgage loans; (ii) implementing housing programs, among them, three financed by IDB, Parvis, Provisa and Profinco; (iii) squatter regularization, upgrading of tenement units, building single family houses and serviced plots, and providing home improvement loans; and (iv) overseeing the implementation of the metropolitan plan for the capital city region. MIVI's housing programs have been developed through the National Mortgage Bank (described in section C). These programs (described in section B), as well as the BNH could be much more efficient if MIVI took a facilitating rather than implementing role.

2.4 The registration of real property transactions has suffered from a myriad of problems including: lack of resources and outdated equipment, cumbersome procedures and requirements, and inefficient organization. In 1998 the Public Registry, which is under the Ministry of Justice, began a modernization program including: (i) decentralizing its operations to six regional offices; (ii) computerizing its information system; and (iii) making the registration process faster. As a result, it now claims to have registered 80% of properties nation-wide and reduced the period for registration of real estate to 5 working days. Even so, the existing information is not always up to date. The Registry is being used at the moment mainly for the purposes of identifying customers of services such as solid waste collection and street lighting.

2.5 The national cadastre system is entirely managed by the Department of Cadastre in the Ministry of Economy and Finance, without any input from the municipal governments. The cadastre is very inefficient: it is estimated that only 40% of the housing stock in the districts of Panamá and San Miguelito are in the books. Paper files need to be hand-carried from the cadastre offices to those of the public registry. The unit is also understaffed: there are only three lawyers who cannot cover the backlog of some 2,000 properties in addition to some 100 new properties added per month. With funding from Spain, the Ministry has recently awarded a contract to modernize the information system with new aerial photographs and GIS referenced maps. It plans to contract out the maintenance of the cadastre system for

¹⁶ This chapter is based on interviews with public and private providers of land, housing and finance in Panamá. It is also based on Angel, 2000, and Conway, et al, 1996.

five years. The World Bank is also co-financing a project to modernize the Registry and the Cadastre Department.

2.6 The Ministry's main interest in the cadastre is fiscal, as property taxes are administered at this level. While only non-agricultural properties are subject to property tax, the last valuation of these was made nearly 30 years ago. In addition, many properties are exempt from tax or in default, and the Ministry has no staff to follow up on arrears. It is estimated that without changing rates, the current tax income of \$40 million could be increased by at least \$100 million, if tax administration is modernized.

2.7 The Panamá Municipality does not have a role in the provision of land and housing. Its functions are mostly the administration of community facilities, parks, cemeteries and markets, and the provision of solid waste collection services. Unlike other cities in the region, it does not manage either of the following: the cadastre, the property tax system, the city's land regulations or the city planning process.

B. Provision of land and housing

2.8 According to the Panamanian Construction Chamber, formal housing production was 8,000 units in 1999 for the five urban districts: Panamá, San Miguelito, Arraiján, Chorreras, and Colón. The government estimates that there is a housing deficit of 187,000 units in the entire country, but most of this deficit corresponds to needs of new housing and only a small portion to qualitative deficiencies. In fact, most indicators of housing quality, in the Panamá City metropolitan area, show an appropriate housing quality. The main problem in the capital area is housing the numerous immigrants that are constantly moving from rural areas.

2.9 MIVI has been off to a slow start in two of the three housing programs financed by IDB. The project started in 1996, totalling \$42 million to finance 3 programs and an important institutional reform. Of the IDB-supported programs, the only one that is operating is PARVIS, a housing subsidy of \$1,500 per family, targeting 15,000 families, and with a total program budget of \$34.5 million. MIVI's other housing programs are minor and include: (a) upgrading some 700 crowded tenements costing about \$14,000 per unit; (b) building single family units, about 150/year and costing about \$9,000 per unit; (c) sites and services, also about 150/year and costing \$1,000 per serviced site; (d) a legalization program in Metro Panamá, with a direct cost of \$800 per unit; (e) a building material kits program consisting of a one time subsidy of \$1,700 per family to acquire a construction kit for a basic 3-room 36 m² house; (f) house improvement loans at \$1,000 per unit; and (g) preferential interest rates for houses costing less than \$62,500.

2.10 Formal developers in Panamá are very active and have managed to continuously outpace population growth. They claim that 58% of single family houses and 15% of the apartments built in 1999 were priced at less than \$20,000, an amount that is affordable by 92% of the households in the metropolitan area of Panamá City. One minimum salary is required to afford this type of housing versus three in the equivalent cases of AMSS and Tegucigalpa. The high degree of affordability of formal housing in Panamá is due to two factors: (i) land is accessible and thus affordable; and (ii) the existence of generous government subsidies and preferential interest rates. The developers' main constraint seems to be trunk services, particularly water and sewerage. One large developer has invested \$110 million in a large scale housing complex but has been waiting for over a year for the water service.

2.11 There appears to be little housing NGO activity in land development and housing construction. One NGO, the Instituto Panameño de Urbanismo, focuses more on research and training, although it has been involved in small-scale projects in some slums through community organizations. Another NGO, the Panamanian Foundation for Cooperative Housing (FUNDAVICO) has been working in Panamá since 1960 and has run some housing programs with relative success.

2.12 According to MIVI, informal land development does not exist in an organized and large scale form as is the case in Metro San Salvador. It is suspected, however, that there are some partially-serviced plots selling for \$800 to \$1,500 per plot in the periphery. Medium or small scale invasions of land take place in the periphery of the metro area and are usually made by recent immigrants. These invasions may account for 12% of the population¹⁷ or about 130,000 people. This is a very low percentage when compared to most Latin American capital cities. Nevertheless several small organized invasions have been taking place rapidly and continuously in the Canal's reverted areas, particularly in the municipality of Arraijan, posing a challenge to the government's plans to protect these areas.

C. Housing finance

2.13 This section describes the programs of the National Mortgage Bank and of private banks, the main providers of housing finance. Mortgage loans are available for 25 to 30 year periods at the nominal mortgage rate of 9.7%. For the formally-employed middle and lower-income households, there is a three, government subsidy on interest rates of 4-5 percentage points. Although these preferential interest rates tend to be regressive because they are not available for the self-employed, non-salaried and small business owners, they have been able to move the private sector market downward to high levels of affordability.

2.14 The government is contemplating the liquidation of the National Mortgage Bank (BNH), the main financier of MIVI's housing programs. As is the case in other Latin American government-sponsored mortgage banks, BNH is engaged in financing land development, housing construction and long-term mortgages. It has been a very inefficient institution. As a result, it has ceased to lend and is, with difficulties, only recovering old debts. In 1999 its portfolio consisted of around 40,000 mortgage loans and 17,000 home improvement loans. The majority of the mortgage loans were for amounts less than \$10,000, averaging \$3,700, and almost half were in arrears at least 3 months. The smaller proportion were for mortgages greater than \$10,000, averaging \$14,500, and 40% were in arrears 3 months or more. Interest rates are highly subsidized, particularly for apartments, with rates as low as 3%. It is not yet clear what MIVI's new role will be after BNH's liquidation since it would have to shift all of the housing finance and the subsidy schemes to the commercial banking sector.

2.15 The private banking sector in Panamá is efficient, competitive and, in the case of mortgage lending, reaches down to the lower-middle income households through the housing subsidies program. Banco General, for instance, the most active commercial bank in low-income housing finance, approves some 700 credits per year. Low-income families have access to commercial long-term credits at government subsidized interest rates.

D. Results of ENV 97 concerning land and housing

2.16 A significant 8% of the poor in Panamá City and San Miguelito (PCSM), equivalent to some 4,700 families, live under shared occupation (table 2.1), in condemned or abandoned buildings originally constructed to house the workers building the Canal, or in barracks, located in the city center. These buildings have unsanitary conditions and are at risk of falling apart. Curundu, a neighborhood where many of these tenements are located, has high levels of violence, drug problems, and prostitution.

¹⁷ It is not clear what exactly is understood by informality in this context. It could be lack of legal property title or lack of basic services, or a combination of both. Cities that monitor this aspect of urban life, have developed a series of precise quantitative indicators to define different degrees of "informality" or "marginality".

2.17 The majority of the poorest households declared owning their property in full (42%) and very few rent (14%). On the other hand, the category "own with mortgage" gets a higher share of the poor households than is the case in the other two cities, with 28% of the first quintile households falling in this category. This might be due to the fact that there is a more active housing market in Panamá, with greater opportunities to obtain long-term financing.

2.18 Although informal tenure was declared by only 8% of the poor, 45% of those claiming being property owners do not have a registered title. This means that as many as 37%¹⁸ of the poor might live under informal property tenure, a lower percentage than in AMSS and Tegucigalpa, but a considerable figure, nevertheless. The results are showing that contrary to what is commonly believed, there is a substantial degree of informality in PCSM, in fact almost double the figure indicated by MIVI.

2.19 When the poor have titles, these are registered predominantly to male heads of households (38%), followed by female heads (28%), and very few under "couple" (3%). Across quintiles the interesting findings are that joint ownership takes place much more often in high quintiles and that the difference between male and female ownership decreases with aggregate consumption.

Table 2.1. Tenure status by household consumption quintiles in PCSM, 1997

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
% in exclusive occupation	92	94	97	97	99	96
Tenure						
- % who rent	14	19	26	25	25	22
- % who own with mortgage	22	27	28	33	31	28
- % who own and have fully paid	42	43	40	37	41	41
- % who are informal	8	4	3	2	1	3
Documents (only for property owners)						
- % with registered title / or in process	55	55	69	76	85	68
- % with unregistered title	8	9	6	6	4	7
- % with service receipts	22	21	17	14	8	16
- % with no documentation	16	15	8	5	3	9
If there is title, to whom is it registered						
- % hhlds having the title registered under couple	3	5	13	18	20	13
- % hhlds having title registered under female head of hhld	28	28	18	24	32	26
- % hhlds having the title registered under male head of hhld	38	41	46	40	32	39

Source: Panamá ENV, 1997.

2.20 Although most houses in PCSM are made of permanent materials (91%), across quintiles the differences are striking: while 9% of the houses corresponding to the first quintile have walls with non-permanent materials, only 1% do so in the next quintile and none in all other groups (table 2.2). Crowding among the poor is as high as in AMSS and Tegucigalpa, with 4 persons per bedroom, whereas in the fifth quintile there is only one person per bedroom. Crowding is associated with hygiene, health, and social problems. The poor, pay, on average, \$58 per month in rent, while the wealthy pay \$317, a differential of 1:5.5. This stands in contrast to the aggregate consumption differential of 1:9.4.

¹⁸ This number is calculated as follows: 0.45 (percentage with no registered title) * 64 (the percentage of property owners) + 8% (declared informal).

2.21 Self construction is a very important way of home acquisition among the poor, with 70% of the first quintile households reporting that they had to partially or fully construct their houses after they moved to a piece of land (table 2.3). This number is just as high as in AMSS and Tegucigalpa. In the last year 26% of poor households invested in improving their properties, most of them did internal improvements: 28%, some increased the floor area: 16% and few did external improvements: 6%. The cost of the improvements is, on average, a considerable \$512, for which the main source of financing was savings: 82%, followed by family and friends: 16%. Loans from private banks and public institutions stand at 10% and 6% respectively. The percentage corresponding to public institutions is considerably higher than in AMSS and Tegucigalpa, confirming that access to housing and housing improvement by the poor is relatively easier in Panamá.

Table 2.2. Housing characteristics and monthly payment by household consumption quintiles in PCSM, 1997

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
- % Houses with walls made of non- permanent materials	9	1	1	0	0	2
Number of bedrooms (#)	1	2	2	2	3	2
# persons/bedroom	4	3	2	2	1	2
Payment for property (only renters)						
- % Monthly payment in dollars	58	72	107	138	317	150
Estimation of rent (property owners and others) (dollars)	63	119	194	301	656	262

Source: Panamá ENV, 1997.

Table 2.3. Property subdivision and improvements by household consumption quintiles in PCSM, 1997

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Conditions of property when moved:						
- % with no constr. or partial constr.	70	58	43	28	23	44
Main house improvement in last year:						
- % with no improvement	74	65	63	69	71	68
- % who increased the floor area	16	20	18	18	13	17
- % who did internal improvements	28	36	33	35	23	31
- % who did external improvements	6	9	9	10	7	8
Amount spent on house improvements (dollars)	512	1423	1359	2666	2836	1784
Source of financing for improvements						
- % hhlds using savings	82	82	81	77	75	79
- % hhlds using loans from public institution	6	6	10	10	7	8
- % hhlds using loan from private bank	10	19	19	20	11	16
- % hhlds using help from family/friends	16	10	9	9.6	5	10

Source: Panamá ENV, 1997.

3. BASIC SERVICES

3.1 Complete and consistent information on provision of urban services in Panamá is incomplete, but points to a growing gap in service in the outlying settlements of San Miguelito, Arraiján, Tocumen and other parts of the Canal Zone where informal settlements are growing at an apparently rapid rate. This chapter covers basic information regarding access, quality, and pricing of water, sanitation, electricity, and solid waste collection.

A. Water and sanitation

3.2 The institutional setting for water and sanitation provision in Panamá has, so far been very centralized. The National Institute for Water and Sanitation (IDAAN) is responsible for delivering services to Panamá's urban populations. In view of the low sanitation coverage and the irregularity in water service provision, the previous government decided to privatize IDAAN. The objectives of private sector participation in the provision of water and sanitation were to: (i) improve service quality and coverage; (ii) make IDAAN's operation more efficient; (iii) eliminate the present scheme of subsidies; and (iv) bring cutting edge technology in the production and delivery of services. But despite a concerted effort to bring private sector management into the water and sanitation sector, involving the creation of a special commission and a World Bank financed study¹⁹, any major changes in the sector's management seem unlikely in the near future, due to political disagreements.

3.3 Contrary to expectations, a considerable portion of the poorest households do not have access to IDAAN's service (12%). At the other extreme, all fifth quintile households are connected to the public aqueduct (table 3.1). Unlike in AMSS and Tegucigalpa, all other sources of water in the case of PCSM are insignificant: for a low 6% of the poorest households private operators are an option, while standpipes are used by only 4% of the first quintile households. Refer to Annex 3 for a comparison of access indicators in different Latin American cities.

3.4 A significant percentage of the poorest households receive water for less than 24 hours (34%) and many for less than 8 hours (15%). These indicators greatly improve with aggregate consumption, so much so that only 2% of the wealthiest households have service for less than 8 hours and 7% for less than 24 hours. IDAAN coverage rates are independent of the number of hours of continuous service per day that communities get. At the bottom of the service quality listing, nine neighborhoods in Arraiján, and twenty nine in Tocumen, receive water one day a week in a cistern truck which delivers 110 – 180 gallons per family. Another tenth neighborhood gets piped water one day a week for four hours. "Partial service" includes forty neighborhoods in Arraiján, most of which get water three days a week for four hours a day, although one gets service only one day a week and the other gets water six days per week. In the remainder of Metro Panamá some eighty neighborhoods have partial service.

3.5 In general, most households drink IDAAN's water without boiling it first, an indication of good quality. Poor users pay, on average \$9 per month, while wealthy consumers pay \$20. This differential is low, considering that the fifth quintile households have an aggregate welfare more than 9 times that of first quintile households. A very large percentage of households, 20%, do not pay anything for the water that they consume. This is double the equivalent percentage in AMSS and Tegucigalpa.

3.6 The Halcrow Study reports that the present tariff structure charges an average of \$0.32 per cubic meter regardless of consumption levels and with no fixed charge. The study proposes the following changes: (i) a \$3.50 fixed charge per month; (ii) tariffs per cubic meter that increase as consumption

¹⁹ Halcrow, 1998.

ranges increase, with an average \$0.16 per cubic meter; (iii) a \$0.5 surcharge for sanitation; (iv) a \$0.15 surcharge for waste water treatment; and (v) a government subsidy to the lowest income population. Another problem reported in the Halcrow study is the high volume of unaccounted for water, which was at 28% in 1997 in the Panamá Metropolitan Area and increased to 35% in 1998.

Table 3.1. Water indicators by household consumption quintiles in PCSM, 1997

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Access:						
- % hhlds with access to IDAAN	88	98	98	100	100	97
- % hhlds with access to private operator	6	1	2	0	0	2
- % hhlds with access to private well	1	0	0	0	0	0
- % hhlds with access to standpipe	4	0	0	0	0	1
Hours of continuous water service (IDAAN only) :						
- % with less than 8 hours	15	10	9	4	2	8
- % with less than 24 hours	34	28	20	14	7	20
% who drink from water (IDAAN only) without boiling :	94	96	94	95	93	94
Monthly payment (dollars). All sources	9	15	15	16	20	16
- % who does not pay	54	24	11	6	5	20
- % whose payment is included in rent	8	13	21	18	21	16

Source: Panamá ENV, 1997.

3.7 A very low percentage of the poorest households have a sanitary facility inside the house (38%). The majority of the poor have to use latrines (53%) and other options out of the property (9%). These numbers stand in contrast with the situation in the fifth quintile where 97% of the households have sanitary facilities inside the house (table 3.2). A total of 7% of the poorest households admit disposing of their waste waters by throwing them in the backyard, street, or river. Therefore, contrary to intuition, service deficits among the poor are quite high in Panamá City metro area. In fact, IDAAN's engineers say that there has been little investment in sanitation during the past fifteen years. The Halcrow study estimates that investments in the order of \$476 million will be needed to keep up with population growth over the next ten years, and to bring national sanitation coverage up to 75%.

Table 3.2. Indicators on sanitation of waste waters by household consumption quintile in PCSM, 1997

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Place where hhld members urinate/defecate:						
- % having sanitary facility inside the house	38	64	79	89	97	74
- % having sanitary facility or latrine in backyard	53	31	18	9	2	22
- % urinating or defecating out of the property	9	5	3	2	1	4
Method to dispose of waste waters (%):						
- % using sanitary facility connected to public sewer	40	61	75	83	92	70
- % using sanitary facility connected to septic tank	7	18	15	11	7	12
- % using latrine	46	20	10	6	1	17
- % using backyard, street, river, etc	7	2	0	0	0	2
- % using shared sanitary service	24	24	15	11	3	15

Source: Panamá ENV, 1997.

B. Electricity

3.8 The institutional setting for electricity provision in Panamá is similar to that of El Salvador, with the service managed by two private sector concessions since 1997. EDEMET-EDECHI operates in the areas of Panamá's Metropolitan Region, the western provinces, and in Chiriqui, covering between them 70% of the urban population. The remaining 30% is served by ELECTRA. Rural areas are covered through the Office of Rural Electrification, mainly funded by the social fund, FIS, which supports an average of 20 new projects each year in self-sustaining energy provision.

3.9 EDEMET-EDECHI states that no coverage data was collected prior to the concession. The persons interviewed believe that coverage is close to 100% in the urban centers but suspect that informal settlements in Arraijan, Tocumen and parts of the reverted territories do not have electricity. They also mention areas such as the Zona Roja, Curundu and Chorillo in Panamá City Metropolitan Area which currently have illegal connections to the main grid.

3.10 Service quality problems exist in certain neighborhoods identified within Panamá City Metropolitan Area as "*barrios carenciados*". These are mostly apartment complexes where wiring is overloaded, inadequate and/or in serious need of repair. EDEMET-EDECHI has a program in action to "regularize" service in Curundu. They estimate that some 1,000 families are covered by the program, which is 80% of the neighborhood's population. If the program is successful they plan to expand it to Chorrillo, Barrazas, and Santa Cruz.

3.11 Tariffs are divided in three categories depending on the electric voltage. In each category there are two groups of consumption: less and more than 100 Kwh. For each category and group there is a fixed charge and a variable tariff per Kwh. The companies state that these tariffs cover 100% of operational cost. The ENV results show that a high percentage of the population does not pay, in total 15% (table 3.3). Among the poorest, this percentage goes up to 44%. These numbers are much higher than their equivalent in AMSS and Tegucigalpa, and, along with the equivalent result in water, point at a possible paternalism in the provision of public services. Payment per month goes from \$16 to \$59 across quintiles, with consumption of electricity going from 140 to 388 Kwh. The deduced average tariff is \$0.14/Kwh, with little variation across quintiles, which means that the poor pay, on average, as much per Kwh than the wealthy.

Table 3.3. Electricity indicators by household consumption quintiles in PCSM, 1997

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
- % households with electricity in house	93	98	99	99	100	98
- Payment per month (dollars)	16	23	29	35	59	35
* Do not pay	44	19	8	4	2	15
- Consumption (Kwh)	140	199	262	255	388	270
- Deduced tariff (dollars/Kwh)	0.15	0.13	0.13	0.15	0.14	0.14

Source: Panamá ENV, 1997.

C. Solid waste collection

3.12 The institutional setting for solid waste collection has been under reform in the past two years. The Direction of Urban Sanitation (DIMA) is in charge of garbage collection in most urban areas of Panamá. It is undergoing a major transformation as a result of Law No. 41 enacted in August, 1999. This law calls for the creation of three Municipal Departments of Urban Sanitation in the municipalities

formerly attended by DIMA (Panamá City, San Miguelito and Colón) and for the devolution of DIMA's assets and operators. Thus far the decentralization has been working successfully, although the Department of Urban Sanitation in Panamá City continues to give assistance to its counterpart in San Miguelito. The municipal departments are further decentralized insofar as they link with local sanitation coordinators on the boards of each of the neighborhoods which make up the municipalities. Two of the main solid waste collection programs in Panamá City have been street cleanliness and upgrading of the collection vehicles.

3.13 One of the main problems faced in Panamá City metro area regarding solid waste is the handling of hazardous waste and waste from hospitals. A study prepared for the Ministry of Economy and Finance proposes the creation of a legislative and regulatory framework to deal with these special wastes, and the participation of the private sector in their collection and disposition. Another problem is the landfill of Cerro Patacon, the only facility serving Panamá City metro area and scheduled to close in 2005. The landfill is operated inefficiently and is insufficient for the amount of solid waste produced in the area. One of the main problems is that the final layer covering the waste is too thin and does not control gas emissions properly. This situation caused a massive fire in January of 1998, with fumes covering the city during three days. Since DIMA's decentralization, Panamá City has invested resources in modernizing the technical operation of Cerro Patacón.

3.14 Private garbage collection and disposal companies work along side, in special niches and in competition with the municipal companies. An estimated 40% of the total garbage produced, including residential, industrial and commercial waste, is collected by private companies in Panamá City Metropolitan Area, a percentage which increases in the peripheral settlements to 100% in Chilibre and to 50% in Pacora. In Colon private participation in the sector covers 48%. The duty free zone is entirely serviced by private waste disposal companies. Outside of DIMA's areas private participation is still higher, reaching 90% in Arraijan and 73% in La Chorrera.

3.15 The ENV results show that most of the residential collection in PCSM is still covered by DIMA (92%), although a large percentage of the poorest households are not: 20%, and many end up throwing their waste in lots, rivers, backyards, or burning it (18%). These indicators show that, although the overall coverage indicator is higher in Panamá City and San Miguelito than in AMSS and Tegucigalpa, the situation of the poorest households is just as bad (table 3.4).

Table 3.4. Solid waste collection service indicators by household consumption quintiles in PCSM, 1997

Characteristic	Q1	Q2	Q3	Q4	Q5	Total
Service provider:						
- % having door to door municipal collection	80	90	93	96	99	92
- % relying on private collectors	2	2	1	1	0	1
- % who throw in lots, rivers, ravines, backyard or burn	18	7	6	3	0	7

Source: Panamá ENV, 1997.

4. PUBLIC TRANSPORT

4.1 As in many other cities in Central America, public transport in Panamá City is provided entirely by the private sector. Relative to Tegucigalpa and San Salvador, the public transport system in Panamá City provides a higher level of service, but accounts for a smaller proportion (47%) of total trips. The lower share of public transport reflects, perhaps, the higher income levels in Panamá City. Unlike in Honduras and El Salvador, the Panamanian government does not provide subsidies to the private operators of public transportation services. Although the city has several modes of public transport – regular buses, minibuses, *chivas*, SACA buses, suburban buses and taxis – this chapter focuses on the regular buses and the system within which they operate. It also briefly outlines the government’s interest in and proposals for a system of mass transit.

A. Institutional setting

4.2 Prior to 1999, three agencies were involved in different aspects of public transportation. The Ministry of Public Works (MOP) was responsible for the physical works and traffic management. The Directorate of Traffic Police (also referred to as the Directorate of Transport), under the Ministry of Government and Justice (MGJ), was responsible for issuing and administering the permits to bus owners to provide public transportation services. As the ministry in charge of both the traffic police and the police, the MGJ had overall responsibility for administration and enforcement of the permits.

4.3 In 1999, the government created a new agency, ATTT (Autoridad de Transito y Transporte Terrestre), combining the transport functions of the MOP and the transport administration functions of the MGJ. Apart from the traffic police functions which remain with the MGJ, the ATTT has full responsibility for managing and regulating the provision of public transportation. It is an autonomous agency with a staff of about 600 people of which 300 are in Panamá City. Its major roles are planning and establishing rules and regulations for transportation, and it has two main functional units, planning, and operations, which focuses on traffic management and administration of permits. With respect to transportation investments, ATTT is responsible for deciding on their nature, scale and location and MOP is responsible for construction and implementation of the requisite physical works. In reality, due to ATTT’s capacity constraints, MOP continues to decide on and implement all major investment projects. Another outcome of the current capacity constraints at ATTT is that MOP – and not ATTT – is managing the on-going studies regarding the feasibility of and options for a mass transit system for the city.

B. Provision of public transport

4.4 The public bus service in Panamá City is based on a system of permits or quotas granted by the government to a bus owner to operate on a particular route. The government has not been issuing many new permits recently and there is an unofficial market for them – the price range is estimated to be \$5,000-15,000, depending on the route. The bus owners usually rent out their fleet to operators or drivers at a fixed and agreed upon daily rate, usually about \$50-70 per day. The driver and his assistant pay for the fuel and retain the fares that they collect and the owner is responsible for insurance, maintenance and taxes. This system results in predictable problems, similar to those in cities such as Tegucigalpa and San Salvador. Specifically, each bus operates as an independent business run by the driver and an assistant working on a short term goal of maximizing passengers and fare collections per trip. In competing for passengers, drivers tend to disregard traffic rules and often compromise passenger safety. At a broader level, the link among costs, profits, and service quality is severed. Having lost control over costs and revenues, owners have little incentive to make significant investments in maintenance and in improving service quality. Nevertheless, as the discussion below indicates, the public transport system in Panamá city works significantly better than those in Tegucigalpa and San Salvador.

4.5 On the supply-side, there are 1,545 registered buses of which 1,303 are in operation. These buses operate on 40 routes within the city and the average route length is about 40 Km.²⁰ The service frequency ranges from 3-10 vehicles per hour and averages about 7 vehicles per hour, which is relatively high.²¹ Given the large number of buses per route and high frequency, waiting times are short – on average 12 minutes. Specifically, the waiting time is about 6 minutes on 38% of the routes, 12 minutes on 36% and 17 minutes on 28% of the routes. These data indicate that the service level is rather high on most routes in the city.

4.6 Data on bus operations indicate that on 85% of the routes the buses make 5-7 roundtrips per bus per day. For the city as a whole, the operators manage to make 6 round-trips per bus per day and average about 239 km per bus per day. The average usage per bus in terms of distance traveled is almost twice as high as that in Tegucigalpa and compares well with the rule of thumb that buses in developing countries should cover about 200-250 km per day.

4.7 On the demand-side, the Renardet study (1999) estimates that there are 358,943 trips in the morning peak hour of which 47% (168,676 trips) are on public transport and 31% are on private cars.²² Of the total trips on public transport, buses account for 80%, taxis 9% and SACA buses 6%. In other words, regular buses account for 37% (134,467 trips) of all trips during the morning peak hour.

4.8 The travel volume in Panamá City is estimated at about 3 million passenger km per day. Ten routes account for 43% of the total passenger km (1.3 million passenger per km), 51% of the total vehicle-km and 80% of the total passenger-km per vehicle-hour in the city. In other words, the travel volume is concentrated in a handful of corridors in the city. The main reasons for this concentration are that commercial activities are located in these corridors and that they serve as principal access routes for certain peripheral neighborhoods.

4.9 Information from a user survey, administered by a local newspaper, supports the notion that public transportation service in Panamá city is at least satisfactory (and, thereby, better than most other cities in the region). Of the 1,023 bus users that participated in the survey, 20% said that they were dissatisfied with the public transport service, 24% said that they were somewhat satisfied and the remaining 54% said that they were either satisfied or highly satisfied with the service.²³

4.10 The government is trying to further improve the operation of the existing public transportation system. Recognizing that the private sector can play an important role in operating terminals and routes, it has already issued a law allowing all routes and bus terminals to be operated as concessions by private operators. To facilitate implementation of this law and minimize adverse impacts on and opposition from existing bus owners and operators, the government is trying to incorporate them into the new system. Specifically, it is encouraging individual bus and permit operators to organize themselves into larger businesses that bid for route concessions and operate each route more systematically. The idea is to create competition for the market and among different route operators within the market, but to limit the competition on a given route.

²⁰ The data on supply and estimates for demand are drawn from the Renardet study (1999). This study estimates the supply using data from field studies, and for demand estimates it relies on simulation results from the TRANUS model.

²¹ About 30% of the routes (12) have a service frequency of 3 vehicles/hour, indicating that the level of service is rather good.

²² Renardet, 1999.

²³ Article in local newspaper on May 23, 2000.

4.11 According to an association of bus owners (Camara Nacional de Transporte), individual operators are already organized into “companies” – there are 74 registered firms in Panamá City and about 150 in the country as a whole. The largest of the 74 companies operating in the city is a syndicate of 120 bus owners and the smallest is comprised of 12 owners. The next step for these firms is to start bidding and competing for route concessions, when the government puts them on the market, and to learn to operate their routes as one larger business enterprise.

4.12 With respect to physical infrastructure such as bus stops and terminals, Panamá City is significantly better off than other cities in the region. The Renardet study (1999) recommends the following improvements: (a) upgrading of existing terminals and creation of new terminals on the periphery to serve as transfer points for passengers from suburban to city buses, primarily to help reduce the number of buses going through the city center; (b) moving toward a uniform design of bus stops and bus shelters; and (c) introduction of a modern information system, especially at bus stops, to assist users in planning and completing their trips. Renardet recommends that the new terminals be financed, built and operated by the private sector under concession from the government. Regarding bus-stop improvements, Renardet suggests that they can be either managed entirely by the government or contracted out to the private sector.

4.13 The Renardet study also strongly recommends the creation of exclusive or dedicated lanes for public transportation and the February 1999 draft report develops, in detail, the idea, design, and options for piloting the concept of dedicated lanes in one major transport corridor in the city. The government is considering the proposal, along with results from the study on mass transit options for the city.

4.14 The on-going mass transit study, financed by the French Government and managed by the MOP, has five phases. In May 2000, the study was in the first phase which focuses on corridor selection. Two corridors had been identified and the next phase, focusing on alternative technologies, was commencing. The study team envisages a system of street cars with low platforms, running on dedicated lanes in major corridors and supported by a system of feeder bus services. The idea is to grant a concession to a private operator who can charge tariffs designed to cover costs, recognizing that for certain sections the government may need to step in with subsidies.

4.15 The fare for regular bus service is established by the government and the standard fare is \$0.15 per passenger per trip. Students, children (8 years or less), and senior citizens pay a discounted fare of \$0.10 per trip. Fares are higher for express, suburban and luxury bus services (\$0.40-0.75 for certain suburban routes, \$0.60-70 for air-conditioned buses, \$1.50-1.80 on the two toll roads etc.). For regular city bus service, the tariff does not vary with distance and is not based on actual operating costs. Bus owners point out that the fare has not been revised for several years but their costs have been rising over the same period. According to the bus owners, a key problem is their lack of access to finance at reasonable costs; they claim to be paying interest rates of 15-24%.

Annex 1

Survey methodology

The study combines three sources of information: (i) a specialized household survey tailored for this study; (ii) interviews with selected agencies, communities, and enterprises related to the issues under study; and (iii) a review of the existing bibliography. This annex summarizes the survey methodology.

A. Household survey

The household survey was designed specifically for this study and was applied in Tegucigalpa (1,200 households) and Metropolitan San Salvador (1,426 households) in October – November 1999. Two earthquakes hit El Salvador in January and February 2000, but due to the timing of the survey, the effects of these disasters were not captured. The survey was carried out by the Costa Rican firm Unimer. Interviewers working in Metro San Salvador and in Tegucigalpa were trained at Unimer's office in San Salvador to ensure consistency in the way of selecting households, asking questions, and coding answers. Pilot surveys were carried out in San Salvador in late September/2000. Field work took place concurrently in the two cities.

The questionnaire, designed by team members and counterparts, has 10 modules: identification of the household and the interviewee, housing/street observations, neighborhood conditions, housing conditions, water, sanitation and drainage, solid waste collection, electricity, transport, characteristics of household members, and expenses and consumption (refer to Annex 2).

The surveys are based on stratified, multistage probability samples of households. Census segments served as the primary sampling unit. Each census segment is classified by socio-economic level: *bajo marginal*, *medio bajo*, *medio*, and *medio alto*. These socio-economic levels constitute the strata. In a first stage all the census segments were grouped by their corresponding socio-economic stratum. Within each stratum census segments are selected in proportion to their size, making sure that the number of households that they represent correspond to the proportional share of each stratum in the city (see table below). In a second stage, households were selected at random within each primary sampling unit. Data weighting compensates for discrepancies between the proportional mix of the strata actually surveyed and their estimated share of each city's population. In each household selected, only adults with ages 18 years and above, and with good knowledge of household issues, were interviewed.

One limitation of the San Salvador and Tegucigalpa surveys is that they included only those areas defined as "urban" by statistical agencies in the respective countries. This means that most of the neighborhoods visited are consolidated and relatively well connected to the city's mainstream institutions and infrastructure. Households located in the peri-urban areas were not included in the sample, and therefore their characteristics cannot be inferred here. Presumably peri-urban areas disproportionately contain migrants involved in agricultural activities and whose connection to the city is precarious. To be consistent, in the case of Panama, the selected sample was refined to include only urban areas.

In the case of Panama City we used data from the 1997 ENV. The ENV covers the entire country and is representative in several areas, including the urban zones of Panama City (Distrito 9) and San Miguelito (Distrito 7), corresponding to the Panama Province. There are 1,411 observations with complete data. It is important to keep in mind that the Panama survey has a different structure and that interviewers went through a different training, making strict comparisons impossible. Plus there is the difference in time. Nevertheless some trends can be easily identified and compared to their equivalents in Metro San Salvador and Tegucigalpa.

**Table 1. Household survey: sample distribution
San Salvador and Tegucigalpa**

Household socio-economic classification	% households in last census	Households in sample
San Salvador (census 1992)		
Middle/high	15%	183 (12.8%)
Middle	37%	438 (30.7%)
Middle low	40%	503 (35.3%)
Very low	8%	302 (21.2%)
Total San Salvador		1,426
Tegucigalpa 1/		
Middle/high	27.4%	320 (27%)
Middle	20.6%	350 (29%)
Middle/low	37%	350 (29%)
Very low	15%	180 (15%)
Total Tegucigalpa		1,200

Source: Author's compilation, 2001.

1/ Estimations using census 1986 and household surveys 1997

B. Welfare measure

To analyze the poor's access to urban services, it is first necessary to establish who are the poor. To that end, a welfare measure was constructed. There is no perfect figure to measure welfare, but the World Bank uses either income or aggregate consumption. For this study it was decided to use aggregate consumption as the overall measure of welfare considering that: (i) household heads consider income a more private item and do not feel at ease sharing this information; (ii) high income households deliberately underestimate their income figures; (iii) where there is a large informal sector, as is the case here, household heads have a hard time distinguishing the household income versus the business income; and (iv) consumption provides a more continuous measure of welfare than does income, because consumption is not subject to abrupt changes in the short run.

The measurement of poverty per se was not the objective of this study. Rather, the goal was to analyze the relationship between poverty and access to basic services. Thus, the consumption aggregate is a very simplified version of LSMS's consumption aggregates. We did not attempt to determine poverty lines based on food baskets, but simply ranked households according to their welfare levels. In that spirit, the results are presented by consumption quintiles, rather than by poverty groups. Only for reference did we include the poverty lines used by each country's statistical agency, in each case explaining the poverty line that they use.

C. Construction of the consumption aggregate

The specific components of the consumption aggregate are:

Housing consumption value

• Value of the house use

Monthly rents (q iv.3.) were used directly for people renting. In all other cases (property owners, informal tenants, and people under leasehold), rents were imputed. To do this, a multiple regression was estimated using the renters' data (q iv.2 =1). The results of the regressions in AMSS and Tegucigalpa are shown below.

- AMSS:

$$\ln(\text{Rent}) = 4.4 + 0.009Y + 0.663\text{NSE} + 0.04\text{OJ} + 0.133\text{HE} + 0.139\text{CC}$$

Std errors: (0.014) (0.048) (0.017) (0.039) (0.061)

N=583 F= 189.66 Adj R²= 0.618

Where:

Rent= Monthly rent as reported by renters

Y= Reported monthly income

NSE= Socio-economic level of census block where house is located

OJ= Household head occupation

HE= Number of bedrooms used exclusively for sleeping

CC= Combination of the following variables: type of street, street surface, and house external materials

- Tegucigalpa:

$$\begin{aligned} \text{Ln (Rent)} = & 4.6 + 0.124Y + 0.227\text{NSE} - 0.058\text{AJV} + 0.297\text{D} + 0.587\text{T} + 0.573\text{TV} + 0.288\text{LV} \\ \text{Std errors : } & (0.24) (0.028) (0.057) (0.008) (0.094) (0.168) (0.198) (0.113) \\ & + 0.075\text{YT} \\ & (0.016) \end{aligned}$$

N= 297 F= 49.7 Adj R²= 0.568

Where:

AJV= Years that the household has lived in the house

D= Place where family members shower

T= Number of telephones

TV= Ownership of a television

LV= Ownership of a laundry machine

YT= Income * Number of telephones

• *Housing services*

Includes monthly payment for: water consumption (q v.3 and q v.4), garbage disposal fee (q vi.1), electricity (q vii.10), and other services (q vii.13). Monthly rents and housing services are added up and transformed into annual per capita values.

Health

Includes monthly payment for health care (q ix.4) and sporadic hospitalization expenditures (q x.2c.13). Each figure is transformed separately into annual per capita values.

Education

Includes: payment of monthly school tuition fees (q x.2b.9), uniforms, shoes, books and other items needed for school (q x.2b.10) and annual school tuition fees (q x.2c.12). Each figure is transformed separately into annual per capita values.

Transport

Includes maintenance of vehicles (q viii.2b) and expenses in mass transit tickets (q v.5.e). The latter value needs to be multiplied by two to include a round trip and by the weekly frequency of the trip (q v.5f). School related trips are adjusted to account for only 8.5 months per year. Each figure is transformed separately into annual per capita values.

Durable goods

For each article (i.e. Phones), the average age is determined using all the households (q x.1.1d). The average age is multiplied by two to get an estimate of the expected life span of the item (ExpLife).

Then, for each item in each household, the reported article age (q x.1.1d) is subtracted from the expected life span (ExpLife) to get the expected remaining life (RemLife). Finally the estimated value of each item in each household (q x.1.1c) is divided by the expected remaining life (RemLife) to get the one year use value estimate for each item in each household. The final steps are to add the one year use value of all durable goods and to divide the result by the number of household members.

Food consumption

Includes food consumed outside the house, in restaurants and cafeterias (q x.2a.1) and food acquired in markets and consumed inside the house (q x.2a.2). Weekly expenses are transformed into yearly expenses and then divided by the number of household members.

Other

The rest of the variables for the welfare measure are in q x.2a.3, questions one to eight in q x.2b, and questions one to eleven in q x.2c. Each figure is transformed separately into annual per capita values.

The welfare measure is the sum of all the categories described above. Since the data was collected in a short period of time and in a limited geographical area, no adjustments for geographical price differential or change in the purchasing power over time were made.

D. Data reliability

Graphs, cross-tabulations, correlations, linear regressions, and logistic regressions yielded results that consistently conformed to the hypothesized relations among variables. Obvious data errors were rare (e.g., two or three children listed as household heads) and were corrected by Unimer.

The relationship between the per capita consumption-welfare measure and declared household income (variable "PR") was positive-curvilinear for both San Salvador and Tegucigalpa. So, too, was the relationship between the same welfare measure and the sample-stratifying variable "anticipated socioeconomic level" ("NSE_A").

Using Stata, ten random 50% split-samples were taken to assess the reliability of the per capita-welfare measure for both the San Salvador and Tegucigalpa samples. The results were deemed quite acceptable. Also using Stata for both the San Salvador and Tegucigalpa samples, bootstrap samples of 2000 repetitions were computed for the mean of the per capita consumption-welfare measure, as well as for the measure controlling for each of the four stratifying socioeconomic levels. The reported bias for the grand mean of the welfare measure in each sample (i.e. the difference between the observed mean and the bootstrapped mean) never exceed 0.9 or -0.9; the bootstrapped standard errors were always slightly less than the observed standard error. For the welfare-measure controlling for the stratifying variable's four levels, only in the case of the smallest subsample, the *medio alto* households, did the bias exceed -1.0 (-2.8 for San Salvador, -1.3 for Tegucigalpa). For these subsamples, the difference between the observed and bootstrapped standard errors never exceeded -.55 or .55. The bootstrap results would seem to indicate that the data are quite reliable.

E. Summary statistics

Here are summary statistics of the welfare measure that we used in the three cities under study. These measures are in dollars and have not been corrected by purchasing power parity indices.

Table 2. Welfare measure in the three cities

Total consumption per capita per year in dollars	Metro San Salvador	Tegucigalpa	PCSM
Minimum	135	120	223
Maximum	9,342	7,478	23,324
Mean	2,085	1,919	3,547

Sources: World Bank, 2001 and Panamá ENV, 1997.

Table 3. Percentage households under different levels of consumption

Indicator	Metro San Salvador	Tegucigalpa	PCSM
Under 1 dollar/capita/day	2.4	4.4	0.7
Under 2 dollars/capita/day	14.1	23.5	4.4
Under 3 dollars/capita/day	28.6	40.8	13.8

Sources: World Bank, 2001 and Panama ENV 1997.

Table 4. Consumption patterns by household consumption quintiles in AMSS, 2000

Consumption item	Q1	Q2	Q3	Q4	Q5	Total
House payment and housing services (% of total)	26	25	27	28	27	27
Health (% of total)	4	5	5	6	8	6
Education (% of total)	5	5	5	5	5	5
Transport (% of total)	6	6	7	7	7	7
Consumer durables (% of total)	3	3	5	5	6	5
Food (% of total)	48	46	42	36	30	36
Other (% of total)	9	9	10	12	17	13

Source: World Bank, 2001.

Table 5. Consumption patterns by household consumption quintiles in Tegucigalpa, 2000

Consumption item	Q1	Q2	Q3	Q4	Q5	Total
House payment and housing services (% of total)	19	18	20	20	16	18
Health (% of total)	5	6	6	6	12	8
Education (% of total)	3	4	6	7	6	6
Transport (% of total)	6	5	7	9	11	9
Consumer durables (% of total)	6	7	8	8	7	7
Food (% of total)	53	49	40	37	34	38
Other (% of total)	9	11	13	14	14	13

Source: World Bank, 2001.

Table 6. Consumption patterns by household consumption quintiles in PCSM, 1997

Consumption item	Q1	Q2	Q3	Q4	Q5	Total
House payment and housing services (% of total)	21	24	25	28	37	31
Health (% of total)	1	2	3	4	5	4
Education (% of total)	6	6	6	6	5	6
Transport (% of total)	6	6	8	8	8	7
Consumer durables (% of total)	2	3	3	4	5	4
Food (% of total)	48	43	36	31	24	30
Other (% of total)	16	16	19	19	16	18

Source: Panama ENV 1997.

For comparison, similar statistics for Managua, Nicaragua are presented:

Table 6. Consumption patterns by household consumption quintiles in Managua, 1998

Consumption item	Q1	Q2	Q3	Q4	Q5	Total
House payment and housing services (% of total)	21	20	19	20	28	24
Health (% of total)	3	3	3	3	5	4
Education (% of total)	5	5	5	6	6	6
Transport (% of total)	4	4	5	5	7	6
Consumer durables (% of total)	2	3	2	4	7	5
Food (% of total)	57	55	55	51	28	40
Other (% of total)	8	10	11	11	19	15

Source: Nicaragua LSMS, 1998

Estudio Urbano de América Central
Area Metropolitana de San Salvador, El Salvador

IDENTIFICACION

Nombre del entrevistado:		NSE
Departamento:	Municipio:	Zona:
Segmento:	Vivienda:	Teléfono:
Dirección:		

Buenos días (tardes/noches). Mi nombre es _____ y represento a Unimer RI, una empresa dedicada a la investigación de mercados. Estamos haciendo una encuesta, para el Banco Mundial, sobre condiciones económicas y servicios públicos en varias ciudades de Centroamérica. Los resultados del estudio serán utilizados para definir mejores políticas urbanas en cada ciudad.

A.- SCREENER

A.1 ¿Es usted parte de esta familia y vive usted en esta casa?	Sí 1. No 2	☞ solicite hablar con alguien de la familia
A.2 En esta ocasión necesito hablar con el jefe/jefa o encargado(a) de este hogar, ¿Es usted el jefe/jefa o encargado(a) de este hogar?	Sí 1. No 2	☞ solicite hablar con el jefe/jefa o encargado(a) del hogar
DE NO ESTAR EL JEFE/JEFA O ENCARGADO(A) DEL HOGAR ANOTE EN CUADRO DE CONTACTOS COMO PENDIENTE		

SI NO ESTA EL JEFE/JEFA O ENCARGADO (A) DEL HOGAR, HAGA UNA CITA PARA REGRESAR:		
1. FECHA: _____	HORA: _____	RESULTADO :

2. FECHA: _____	HORA: _____	RESULTADO :

Entrevista efectiva:	1.Si	2. No ☞SUSTITUCION

Su hogar ha sido seleccionado por sorteo para hacer una entrevista. Quisiéramos pedirle que colabore con nosotros dándonos sus respuestas. La encuesta tomará aproximadamente 45 minutos. La información que usted nos dé y su nombre son absolutamente confidenciales, en cambio, los resultados de la encuesta serán de *acceso público*.

Hora de inicio: _____

II. OBSERVACIONES DE LA VIVIENDA SELECCIONADA
(deben ser completadas por el encuestador sin necesidad de preguntar al encuestado)

1. Tipo de calle:

Camino o vereda/pasaje/donde no pasan vehículos	1
Vía con acceso vehicular	2

2. Superficie de la calle:

Tierra	1
Pavimentada (asfalto, cemento, adoquinado o similar)	2

3. Tipo de material de lo que es la mayor parte de las paredes exteriores de la vivienda:

Permanente (bloque, ladrillo, concreto, adobe)	1
No permanente (caña, lámina, de zinc o cartón)	2

III. CONDICIONES DE VIDA EN LA COLONIA

1. ¿En dónde se formó su hogar actual? *(LEER) (RESPUESTA UNICA)*

Este municipio	01
Municipio del AMSS, cuál? _____	02
En otro municipio (anote también el departamento): _____	03
Otro país: (Espec.) _____	08

2. ¿Cuántos años tiene el/la jefe de hogar de vivir en esta colonia?

3. ¿Porqué se instaló su hogar en esta colonia? *(RESPUESTA MULTIPLE)*

Vivían aquí familiares/amigos suyos	01
Está bien ubicada	02
Disponibilidad de vivienda o terreno a precio favorable	03

Otro: (Especif) _____	08
NS/NR	99

4. En esta colonia, cuál es el principal problema? (NO LEA) (RESPUESTA ÚNICA)

Inseguridad/violencia	01
Condiciones económicas/ Desempleo	02
Falta de confianza entre vecinos	03
Agua	04
Aguas Servidas	05
Recolección de basuras	06
Electricidad	07
Transporte	08
Inseguridad en la tenencia de la tierra	09
Acceso	10
Escuelas (falta de o baja calidad)	11
Servicio de salud precario	12
Inundaciones, derrumbes	13
Falta de zonas recreativas	14
Falta de mercados	15
Otro: (Especif) _____	08
No sabe/No responde	99

5a. Primero, por favor dígame si los siguientes grupos que le leeré operan en su colonia? (Anote en Pr.5a)

5b. (Para las organizaciones que el entrevistado dice que operan en esa colonia en Pr.5a pregunte) Y de las organizaciones que usted dice que operan en su colonia, ¿participa ud. o alguien de este hogar en las actividades de estas organizaciones? (Lea las opciones y anote en Pr.5b)

5c. ¿Y estos grupos han ayudado a resolver problemas de su comunidad? (Lea las opciones y anote en Pr.5c)

No. Circule las que mencione	Organización	5A	5B	5C
		La organización opera en esta colonia Si 1 No 2 NS/NR 9 [Si 1 siga con esta tabla, sino pase a la pregunta # 6]	Participa alguien de este hogar? Nunca 1 Casi nunca 2 A veces 3 Con frecuencia 4 No sabe 9	Han ayudado estas organizaciones a resolver problemas de su comunidad? Nada 1 Poco 2 Mucho 3 Muchísimo 4 No sabe 9
01	Iglesia católica			
02	Otra iglesia			
03	Un grupo de padres de familia de la escuela			
04	Un comité o junta de mejoras para la comunidad			
05	Un grupo deportivo o cultural			
06	Una cooperativa			
07	ONG's (organizaciones <u>no</u> del gobierno que apoyan todo tipo de programas)			
08	Otra, cual?: _____			

6. Tiene su familia planes concretos para irse a otra colonia en el próximo año? (encuestador: asegúrese de que tengan planes concretos)

Si	1
No	2
No Sabe/No responde	9

⇒ Pase a Sección IV
⇒ Pase a Sección IV

7. ¿Cuál es la principal razón por la cual, su hogar, piensa irse a otra colonia? (NO LEER. RESPUESTA UNICA)

Las condiciones de vida en esta colonia son malas	01
Por razones de trabajo	02
Para estar más cerca de familiares y amigos	03
Otro, cuál?	08

IV. CONDICIONES DE LA VIVIENDA

1. La vivienda ocupada por este hogar es:

De uso exclusivo de un hogar/familia	1
Compartida por varios hogares	2

2. La vivienda ocupada por este hogar es: (RESPUESTA UNICA)

Alquilada	01	⇒ Pase a Pr.3 y luego a Pr.12 de misma sección
Con promesa de venta/ Pagando a plazo	02	⇒ Pase a Pr.3 y luego a Pr.12 de misma sección
Propia con hipoteca	03	
Propia y totalmente pagada	04	⇒ Pase a Pr.4 y continúe
Tenencia informal	05	
Otro, cuál? _____	06	
NS/NR	09	

3. ¿Cuánto paga mensualmente?

Pago mensual	_____
No paga en forma monetaria	02
NS/NR	99

⇒ ENTREVISTADOR: SI EL LA PR.2 MENCIONA LOS CODIGOS 1 Y 2 PASE A PR.12

4. ¿En los últimos cinco años ha subdivido su lote?

Si	1	
No	2	⇒ Pase a Pr. 6
NS/NR	9	⇒ Pase a Pr. 6

5. ¿Cuál es la razón principal por la cual subdividió el lote? (NO LEER. RESPUESTA UNICA)

Para darle un terreno a un hijo o familiar	01
Para arrendar o venderle a otra familia	02
Otro, cuál?: _____	08
NS/NR	99

6. ¿Qué tipos de documentos de propiedad tiene de la vivienda? (Lea todas las opciones. Puede escoger más de uno)

Título o escritura registrado	01	⇒ Pase a Pr.8
Escritura o título sin registrar	02	⇒ Pase a Pr.8
Arrendamiento con promesa de venta	03	⇒ Pase a Pr.8
Recibo de impuestos a la propiedad	04	⇒ Continúe con Pr.7 y luego pase a Pr.9
Recibos de servicios	05	⇒ Continúe con Pr.7 y luego pase a Pr.9
Ninguno	06	⇒ Continúe con Pr.7 y luego pase a Pr.9
Otro, cuál? _____	08	⇒ Continúe con Pr.7 y luego pase a Pr.9
NS/NR	99	

7. ¿Por qué no tiene documento de propiedad? (NO LEER. RESPUESTA MULTIPLE)

No tiene dinero para comprar la propiedad	01
Todavía está pagando a plazos	02
Los trámites son difíciles, costosos o toman tiempo	03
No hace falta tener documento de propiedad	04
Otra, cuál? _____	08
No sabe/No responde	99

} PASE A Pr.9

8. ¿A nombre de quién está registrado el título de propiedad de esta vivienda o el contrato de arrendamiento/alquiler con promesa de venta? (NO LEER, RESPUESTA UNICA)

Ambos cónyuges	01
Jefe de hogar mujer	02
Jefe de hogar hombre	03
Otro miembro del hogar, cuál? _____	08
NS/NR	99

9. ¿Por cuánto cree que podría arrendar su propiedad si decidiera arrendarla a otros? (Encuestador: verificar arriendo con otros vecinos)

10. Para venirse a vivir acá, ustedes construyeron la casa o ya estaba construída?

La construyó	1
Ya estaba construída	2
NS/NR	9

⇒ PASE P12 DE LA MISMA SECCION

11. ¿Cómo ha sido construída esta vivienda? (LEA LAS OPCIONES)

Toda en un año	1	Hace cuántos años? _____
Construída parcialmente por varios años	2	Años que tardó la construcción: _____

12. ¿Cuántos años seguidos tiene el jefe de su hogar de vivir en esta vivienda? _____ años

13. ¿Cuántas habitaciones son utilizadas exclusivamente para dormir en esta vivienda?

14. ¿En los últimos cinco años, cuál es la principal mejora o adición que hicieron a esta vivienda? (NO LEER)

Ampliar área construída	01
Mejoras al interior de la vivienda	02
Mejoras al exterior de la vivienda	03
Mejoras al servicio sanitario	04
Otra, cual? _____	05
Ninguna	00
NS/NR	99

⇒ Pase a la Sección V

⇒ Pase a la Sección V

15. ¿Cuánto gastaron en las mejoras o adiciones?

Gastó: _____	01
No sabe/No responde	99

16. ¿De dónde obtuvieron el dinero para hacer la mejora o adición a la vivienda? (PUEDE ESCOGER MÁS DE UNO)

		¿Cuánto dinero?
Ahorros/recursos propios	01	_____
Préstamo de institución pública	02	_____
Préstamo de un banco privado	03	_____

Ayuda de familiares y/o amigos	04	
Préstamo o ayuda de patrón	05	
Otro, cuál? _____	08	
NS/NR	99	

V. AGUA, SANEAMIENTO Y DRENAJE

1. ¿Podría mencionarme las principales fuentes que tienen en este hogar para proveerse de agua?.

Circule los códigos que mencione	Fuente de agua (Lea cada categoría)	1A	1B	1C	1D	1E
		Tiempo total que su hogar gasta en traer el agua a la casa cada día (para los códigos 3 a 9)	Horas de servicio al día (para los códigos 1 y 2) o número de barriles, botellas/semana (para los códigos 3 a 9)	¿Toma ud de esta fuente para beber? (LEER RESPUESTAS) Si, sin hervir 1 Si, pero la hierve antes 2 Si, pero la purifica antes 3 No 4	¿Lava usted con el agua de esta fuente? Si 1 No 2 NS/NR 9	¿Cocina usted con esta agua? Si 1 No 2 NS/NR 9
01	Agua por tubería (servicio público)					
02	Agua por tubería (Acueducto privado o comunitario)					
03	Carro cisterna Público					
04	Carro cisterna privado					
05	Agua en botella/bolsa (no purificada)					
06	Pozo privado o compartido					
07	Pila o llave pública					
08	Agua embotellada purificada o de manantial					
09	Otro, cuál?: _____					

2. Si recibe el agua de las fuentes 1 o 2, puede mostrarme el recibo del mes pasado (o del período más reciente)?

Mostró el recibo	1
No mostró el recibo	2

Encuestador: si el encuestado mostró el recibo, apunte la siguiente información con detalle. Sino, pídale únicamente un estimado por mes de la cantidad a pagar.

3. Datos del servicio de agua

	Fuente	Fuente
Número de cuenta:		
Cantidad a pagar		
Cantidad consumida		
Periodo cubierto por el recibo (meses)		
No tiene medidor	00	00

4. Si recibe el agua de las fuentes 3 a 9, ¿podría decirme cuánto gasta por mes?

	Fuente	Fuente
Número de unidades consumidas en un mes (botellas, cilindros/barriles, otro):		
Litros contenidos en cada unidad:		
Costo por unidad:		

5. (Entrevistador: Pase la información de Pr. 1 de esta sección para realizar las siguientes preguntas) Ahora le voy a hacer unas preguntas sobre cómo obtuvieron el servicio de agua. (LEA CADA PREGUNTA Y LAS RESPUESTAS)

Circule los códigos que mencionó en Pr.1	Fuente de agua (LEA CADA FUENTE MENCIONADA EN PR.1A)	5A	5B	5C	5D
		¿Desde hace cuánto cuenta su hogar con este servicio?	Desde que viven acá, ¿cuánto tiempo transcurrió antes de que tuvieran este servicio? (años)	¿Cómo se logró el servicio? (LEER) (VARIAS RESPUESTAS)	¿Cuánto tuvo que pagar por la instalación?
		- Menos de un año 1 - Entre 1 y 5 años 2 - Entre 6 y 10 años 3 - 10 años o más 4 - El servicio ya existía cuando ud. se mudó a esta colonia 5 - NS/NR 9		Acción personal 01 Acción comunal 02 Acción gubernamental 03 Urbanizador 04 Otro privado 05 Otro, cuál? 08 NS/NR 99	
01	Agua por tubería (servicio público)				
02	Agua por tubería (Acueducto privado o comunitario)				
03	Carro cisterna público				
04	Carro cisterna privado				
05	Agua en botella/bolsa (no purificada)				

06	Pozo privado o compartido				
07	Pila o llave pública				
08	Agua embotellada o en bolsa Purificada o de Manantial				
09	Otro, cuál?				

6. Ahora quisiera hacerle unas preguntas sobre actividades diarias que requieren el uso del agua (LEER)

	Actividad	6A	6B
		¿Dónde lleva a cabo la actividad?	¿Cómo dispone de las aguas servidas resultantes de la actividad?
		Dentro de la vivienda...1 En el patio..... 2 Fuera de la vivienda 3	Tubería conectada al alcantarillado municipal 01 Tubería conectada al alcantarillado privado o comunitario 02 Tubería conectada a pozo séptico 03 Patio 04 Calle 05 Rio/lago 06 Otro, cuál? 08 NS/NR 99
1	Ducharse		
2	Lavar ropa		
3	Cocinar		

7. Quisiera saber dónde hace usted sus necesidades: (LEER)

Sanitario dentro de la vivienda	1
Sanitario o letrina en el patio	2
Fuera de la propiedad	3

8. ¿Cómo dispone de las aguas servidas resultantes de hacer sus necesidades? (LEER) (RESPUESTA MULTIPLE)

Sanitario comunal conectado con alcantarillado municipal	01
Sanitario comunal conectado con alcantarillado privado o comunitario	02
Sanitario comunal conectado con pozo séptico	03
Letrina	04
Patio	05
Calle	06
Rio/Lago	07
Otro, cuál? _____	08

9. ¿Comparten algunos de los servicios de su hogar con vecinos? (*LEA LAS RESPUESTAS*)

No	Servicio	¿Comparten el servicio con vecinos?	
		Nunca	1
		A veces	2
		Siempre	3
1	Regadera		
2	Sanitario		
3	Cocina		
4	Lavadero		

10. (*Si tiene sistema de saneamiento, ver Pr.8 códigos 01 a 04 continúe y lea todas las opciones, sino pase a Pr. 11*): Con respecto a su sistema de saneamiento quisiera saber:

Circule el código que corresponde	Sistema	10A	10B	10C	10D
		Año en que fue adquirido	Costo de adquisición	¿Cómo consiguieron el servicio? (<i>RESPUESTA MULTIPLE</i>)	¿Tiene ud los siguientes problemas? (<i>RESPUESTA MULTIPLE</i>)
		NS/NR 9	NS/NR 9	Acción personal 01 Acción comunal ... 02 Acción gubernamental 03 Urbanizador 04 Otro privado 05 Otro, cuál? 08 NS/NR 99	Mal olor 01 Derrame de aguas servidas 02 Moscas 03 Otro, cuál? 08 Ninguno 00
1.	Sanitario individual conectado con alcantarillado municipal				
2	Sanitario individual conectado con alcantarillado privado o comunitario				
3	Sanitario individual conectado con pozo septico				
4	Sanitario comunal conectado con alcantarillado municipal				
5	Sanitario comunal conectado con alcantarillado local				
6	Sanitario comunal conectado con pozo séptico				
7	Letrina				
8	Otro, cuál ?				

11. Durante el último año, su vivienda ha sufrido inundaciones?

Regularmente cuando llueve	1
Solo cuando hay lluvias fuertes	2
No	3
No sabe	9

12. En esta colonia, durante los últimos cinco años ha habido daños serios a viviendas como resultado de:

	SI	NO	NS/NR
Inundaciones?	1	2	9
Derrumbes o deslaves?	1	2	9

VI. DESHECHOS SOLIDOS

1. ¿Cómo elimina este hogar la mayor parte de la basura? (NO LEER) (RESPUESTA MULTIPLE)

Servicio municipal que pasa por la casa (incluido servicio privado contratado por el municipio)	01	Pago mensual: _____
Servicio municipal que recoge la basura en un botadero comunal	02	Pago mensual: _____
Pagan a otras personas por botarla en otros sitios	03	Pago mensual: _____
La botan en otros lotes o en rios/quebradas	04	
La botan al patio	05	
La queman y/o entierran	06	
Otro, cuál? _____	08	

2. ¿Con qué frecuencia se elimina la basura de su vivienda con el método escogido arriba? (NO LEER RESPUESTAS)

Mas de una vez por semana	1
Una vez por semana	2
Una vez cada 2 o 3 semanas	3
Una vez por mes	4
Menos de una vez por mes	5
NS/NR	9

3. Por favor indíqueme si su comunidad tiene los siguientes problemas. (LEER. Puede escoger más de una respuesta.)

Montañas de basura sin recoger	01
Malos olores	02
Moscas	03
Ratas	04
Alto costo	05
Otro, cuál? _____	08
Ninguno	00

VII. ELECTRICIDAD

1. ¿Hay alumbrado público en la colonia?

SI	1
NO	2

⇒ Pase a Pr. 3

2. ¿Desde hace cuántos años tienen alumbrado público en la colonia?

99.NS/NR

3. ¿Cuenta su hogar con electricidad?

SI	1
NO	2

⇒ Pase a Pr.5

⇒ Pase a Pr. 4 y luego a Pr.13 de la misma sección

4. ¿Por qué no? (*NO LEER*)

No existen redes en la colonia	01
Solía tener el servicio pero fue cortado por atraso en el pago	02
Otro, cuál?	08
NS/NR	99

}

**PASE A Pr.13
DE LA MISMA
SECCION**

5. ¿De dónde obtiene la electricidad? (*NO LEER*)

Servicio de la compañía eléctrica	01
Vecinos	02
Conexión informal	03
Otro, cuál?	08
NS/NR	99

6. ¿Más o menos cuántas horas por día tiene electricidad? (*NO LEER*)

Menos de una hora	1
Una a dos horas	2
Tres a seis horas	3
Más de seis horas	4

7. ¿Ha experimentado apagones en los últimos 6 meses?

		FRECUENCIA MENSUAL
Si	01	¿Con qué frecuencia al mes? _____
No	02	
Otro (Especif) _____	08	_____
NS/NR	99	

8. Por favor indíqueme si tiene los siguientes problemas. (Lea cada frase. Puede escoger más de una).

Se le ha dañado algún aparato eléctrico por bajones de voltaje	01
El voltaje es insuficiente para operar ciertos aparatos	02
La intensidad de la luz es variable	03
Otro, cuál? : _____	08
Ninguno	00

9. Puede mostrarme el recibo de electricidad del mes pasado (o del período más reciente)?

Mostró el recibo	1
No mostró el recibo	2

Encuestador: si el encuestado mostró el recibo, apunte la siguiente información con detalle. Sino, pídale únicamente un estimado de la cantidad a pagar.

10. Datos del servicio de electricidad (ANOTE UNICAMENTE EL CARGO POR ELECTRICIDAD)

Número de cuenta: _____	01
Cantidad a pagar: _____	02
Cantidad consumida: _____	03
Periodo cubierto por el recibo: _____	04

11. ¿Qué pasa si no paga la electricidad? (Respuesta múltiple)

Le cortan el servicio	1
Le cobran una multa	2
Nada	3

12. ¿Tiene usted un medidor del consumo de electricidad? [Encuestador: pida verlo]

Si y funciona bien	1
Si, pero no funciona	2
No	3
NS/NR	9

13. Otros gastos mensuales en energía del hogar. (Circule los códigos de los que mencione y complete)

	¿Cuánto?
1....Gastos en gas para cocinar	_____
2...Gastos en otros insumos para cocinar o alumbrar (excluya electricidad y gas), tales como: querosén, baterías, leña, etc	_____
3...Gastos en teléfonos (regular y celular) y beepers	_____
4...Gastos en conexiones de cable (TV) e internet	_____

VIII. TRANSPORTE

1. ¿Alguien en el hogar posee un vehículo (incluidos automóviles, bicicletas, motocicletas, o cualquier otro medio que sirva para transportarse) ?

SI	1
NO	2

⇒ Continúe

⇒ Pase a Pr.3 de esta sección

2. ¿Podría darnos información sobre los vehículos que su familia posee? (Circule en la columna No.1 para los que posea el hogar, y pregunte para cada uno de ellos Pr.2a y Pr.2b)

Col.#1 Circule	Tipo de vehículo	2A # de vehículos que posee	2B Gasto mensual por concepto del vehículo en cuestión (gasolina y mantenimiento)
1	Bicicleta		
2	Vehículo automotor		
3	Motocicleta		
8	Otro, cuál?: _____		

3. ¿Utiliza alguien de su familia el bus público?

SI	1
NO	2

⇒ Pase a Pr. 5

⇒ Continúe

4. ¿Por qué no? Escoja un máximo de 2 respuestas. (NO LEER) (ANOTE LAS PRIMERAS 2 MENCIONES)

No es cómodo	01
Toma mucho tiempo	02
Es muy caro	03
Es inseguro	04
No pasa ninguno cerca de su vivienda	05
Las rutas no le sirven	06
Prefiere usar su vehículo	07
Otro, cuál? _____	08

5. ¿Qué medio de transporte usa su familia para llevar a cabo las siguientes actividades?

(Encuestador: si más de una persona trabaja, tome los datos de dos de estas personas, nada más. Asimismo, si más de una persona estudia, tome los datos de dos de estas personas, nada más.)

	Propósito del viaje	5A Modo primario de transporte (SOLO 1) (SI COMBINA MAS DE 1, ENTONCES PREGUNTE PARA EL PRIMERO) Camina 01 Bicicleta 02 Vehículo Propio 03 Microbus 04 Taxi compartido 05 Taxi 06 Bus regular 07 Otro, cuál 08 NS/NR 99	5B Distancia aproximada al destino en minutos	5C Tiempo que gasta para llegar al sitio de embarque. (Si en Pr.5a menciona los códigos 1, 2, 3 pase a Pr.5E)	5D Tiempo que gasta esperando el vehículo en el sitio de embarque (Si en Pr.5a menciona los códigos 1, 2, 3 pase a Pr.5E)	5E Cuánto gasta en el fiquete (SOLO IDA) (SOLO PARA EL TRANSPORTE PRIMARIO) (Solo para bus, minibus, taxi compartido y taxi)	5F ¿Cuántas veces por semana o mes hace este viaje? (Encuestador: <u>apunte si es por semana o por mes</u>)	5G Modo complementario de transporte (utilizado en combinación con el modo primario) (Respuesta multiple) Camina 01 Bicicleta 02 Vehículo Propio 03 Microbus 04 Taxi compartido 05 Taxi 06 Bus regular 07 Otro, cuál 08 NS/NR 99
1	Trabajo miembro 1 Nombre:							
2	Trabajo- miembro 2: Nombre:							
3	Escuela/ univ- miembro 1 Nombre:							
4	Escuela/univ- miembro 2 Nombre:							
5	Mercado (adonde hace mayor parte de las compras) Nombre:							
6	Servicio de salud Nombre:							

6. (Entregue tarjeta Pr.6) En su opinión cuáles de los siguientes cambios ayudarían más a mejorar el sistema de transporte? Escoja un máximo de 3, en orden.

(Encuestador: anote en orden de importancia: 1 más importante, 2 segundo más importante, 3 tercero más importante, 9 no sabe)

	Anote en orden de importancia
1...Reducir el tiempo de espera de los buses	_____
2...Reducir la cantidad de gente en los buses	_____
3...Agregar nuevas rutas de buses	_____
4...Reducir la tarifa del bus	_____
5...Mejorar la seguridad en los buses	_____
6...Tener buses más nuevos y mejor mantenidos	_____
8...Otro (Espec.) _____	_____

IX. MIEMBROS DEL HOGAR

1. Cuántas personas en total viven en esta vivienda (incluyéndose Ud y las personas que están temporalmente ausentes)?

2. Durante el último año el número de personas que viven en esta vivienda cambió?

Aumentó	1	⇒ Continúe
No cambió	2	⇒ Pase a Pr. 4
Disminuyó	3	⇒ Pase a Pr. 4

3. El crecimiento de su hogar se debe a:

Nació un bebé (o más de uno)	1
Vinieron a vivir en su hogar otras personas	2

4. ¿Ha hecho algún gasto en Salud, durante el último mes para las personas de este hogar?

		¿Cuánto gastó?
SI	1	_____
NO	2	
NS/NR	9	

5. Ahora cuénteme sobre los miembros de su hogar (incluyendo a las personas que están temporalmente ausentes):

[Encuestador: comience con el encuestado. Luego anote las demás personas que conforman el hogar, de mayor a menor edad y pregunte]

No	5A Nombre y Sexo	Relación con el jefe de familia	5C EDAD	5D Estado civil	5E Educación	5F Ocupación principal (una sola)	Para cada persona que trabaja, responda 5G-5K		5H		Está segu
							5G Tipo de trabajo	Es de tiempo completo?	Si	No	
	Hombre 1 Mujer 2	Jefe de familia ... 1 Esposo/a..... 2 Hijo..... 3 Hija..... 4 Hermano..... 5 Hermana..... 6 Abuelo..... 7 Abuela..... 8 Nieto..... 9 Nieta..... 10 Tío..... 11 Tía..... 12 Sobrino..... 13 Sobrina..... 14 Otro familiar..... 15 Ningún parentesco..... 16		Casado/unión libre 1 Viudo 2 Divorciado/ Separado 3 Soltero 4	Ninguna 1 Primaria completa 2 Primaria incompleta 3 Secundaria completa 4 Secundaria incompleta 5 Universitaria incompleta 6 Universitaria completa 7 Postgrado 8	Quehaceres del hogar 1 Estudia 2 Trabaja 3 Jubilado 4 Desempleado 5 Nada 6	Patrono o empleador 1 Empleado asalariado 2 Trabaja por su cuenta 3 Trabajo sin remuneración 4 NS/NR 9	Si 1 No 2 NS/NR 9	Si No NS/NF		
	Comience con el encuestado i										
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

X. GASTO Y CONSUMO

1. ¿Tiene este hogar los siguientes artículos? (SI TIENE MAS DE UN ARTICULO DE CADA ITEM, PREGUNTE POR CADA UNO DE ELLOS EN ORDEN)

No	Artículo	1A		1B	1C	1D
		Posee este artículo		¿Cuántos tiene?	¿Por cuánto cree que podría venderlo hoy si decidiera hacerlo? (Si hay más de 1, pregunte por c/uno)	¿Qué edad tiene el artículo en años? (Si hay más de 1, pregunte por c/uno)
		Si	1			
		No	2			
1	Teléfono					
2	Computador					
3	Televisión					
4	Antena parabólica					
5	Cámara de video					
6	Cámara de fotos					
7	Horno					
8	Horno microondas					
9	Refrigeradora					
10	Lavadora					
11	Aire acondicionado					
12	Máquina de coser					
13	Plancha					
14	Aspiradora					
15	Radio, grabadora					
16	Carro/van/Camioneta					
17	Motocicleta					
18	Lavadora de Trastos					
19	VHS					
20	Otro electrodoméstico, cuál?					

2. ¿Cuánto gastó este hogar en los siguientes rubros?

2A- GASTOS DEL HOGAR DE ULTIMA SEMANA

<u>No</u>	<u>Tipo de gasto</u>	<u>Gasto semanal</u>
1	Alimentos y bebidas consumidos fuera del hogar, incluyendo refrigerios consumidos en el trabajo y centros educativos	
2	Alimentos y bebidas adquiridos en tienda o supermercado y consumidos en el hogar (solo alimentos y bebidas).	
3	Periódicos, teléfono público, correo, envío de fax, y otros gastos para comunicarse.	

2B. GASTOS DEL HOGAR ULTIMO MES

<u>No</u>	<u>Tipo de gasto</u>	<u>Gasto mensual</u>
1	Artículos de aseo y funcionamiento de la casa: detergentes, jabones desinfectantes, cera, Escobas, cepillos, guantes, Fósforos, focos, bombillos	
2	Artículos de baño y aseo personal (pasta dientes, desodorantes, perfumes, Cosméticos etc)	
3	Servicios para la casa: lavandera, chofer, jardinero, Lavado, planchado, sastre, costurero	
4	Libros, periódicos, revistas, suscripciones (no escolares)	
5	Cortes de pelo, manicure, masaje, gimnasio, clubes, etc	
6	Entradas a centros de recreación y diversión como cines, deportes, espectáculos	
7	Biberón, pañales y similar	
8	Rifas y loterías	

<u>No</u>	<u>Tipo de gasto</u>	<u>Gasto mensual</u>
9	Cuota mensual de colegios, y/o institutos académicos	
10	Uniformes, zapatos, útiles y libros escolares	

2C-GASTOS DEL HOGAR ULTIMOS 12 MESES

No	Tipo de gasto	Gasto anual
1	Prendas de vestir o telas (excluyendo uniformes)	
2	Zapatos y reparación de zapatos	
3	Artículos para la casa: vajillas, ollas, trastos de cocina, ropa de cama, cortinas, colchones, manteles, hilo, adornos, floreros etc.	
4	Juguetes, artículos deportivos, joyería, etc.	
5	Muebles y accesorios de comedor, sala, dormitorio	
6	Secadora, afeitadora eléctrica, onduladora	
7	Hoteles, viajes, tours	

No	Tipo de gasto	Gasto anual
8	Servicios profesionales de abogado, notario, y otros servicios legales	
9	Multas, matrícula de vehículo, licencia, seguro de automóvil.	
10	Seguro de accidente, incendio, y similar	
11	Matrimonios, funerales, fiestas y regalos	
12	Matrículas escolares y cuotas anuales por educación	
13	Hospitalización	

Preguntas	Códigos
P.A. Sexo	1...Masculino 2...Femenino
P.D Y, ¿cuál es su ocupación ... qué clase de trabajo desempeña para vivir?	
P.H Y, ¿cuál es la ocupación de la persona jefe de este hogar ... es decir qué clase de trabajo desempeña para vivir?	
P.J. Cuentas con servicio doméstico en esta casa?	1. Sí 0. No 9. NS/NR
P.L En este hogar hay personas que estudian en escuela, colegio o universidad?	1. Sí 0. No PASE A PN 9. NS/NR PASE A PN
P.M Y van a escuela, colegio o universidad pública o privada?	1. Pública 2. Ambas 3. Privada
P.N Acostumbra tomar vacaciones con su familia?	1. Sí 0. No PASE A P.P 9. NS/NR PASE A P.P
P.O Vacaciona dentro o fuera del país?	1. Dentro del país 2. Ambos 3. Fuera del país
P.P. Tiene vehículo propio para el uso de la familia?	1...Si 0...NO Pase a P.R 9...NS/NR Pase a P.R
P.Q De qué año es el vehículo para uso familiar? SI TIENE VARIOS, PREGUNTE POR EL VEHICULO MAS RECIENTE EN CASO DE QUE TENGAN MAS DE UNO	1. Antes de 1990 2. De 1990 a 1995 3. De 1996 en adelante
P.R De acuerdo con esta tarjeta, cuál es el ingreso total mensual de este hogar? MUESTRE LA TARJETA/LEA LA LISTA	1. Menos de ¢2,500 6. ¢7,501 a ¢10,500 2. ¢2,501 a ¢3,500 7. ¢10,501 a ¢13,500 3. ¢3,501 a ¢4,500 8. ¢13,501 a ¢15,000 4. ¢4,501 a ¢5,500 9. Más de ¢15,000 5. ¢5,501 a ¢7,500 0. NS/NR
P.S ¿Cuántas personas viven en este hogar...?	_/_/_/

Fecha de la entrevista:	
Nombre del entrevistador:	Firma:
Supervisor de Campo:	Firma:

HORA DE FINALIZACION: _____

DURACION DE LA ENTREVISTA: _____

Muchísimas gracias por su colaboración;

Annex 3

Basic Service Indicators for Several Cities

The following indicators are presented as a reference point. It must be clear for the reader that these indicators come from different sources and years, and that in many cases their definitions vary, making strict comparisons impossible. In most cases the data available show coverage at city level and rarely is it discriminated by income group. Research by the World Bank shows that coverage of basic services in Latin America, although still deficient, is not the main issue. The most important problem lies in the quality of these services. Thus, many households might be connected to the services but receive it few hours per week.

Cities	Public water connection 1/		Hygiene facility in-house		Connection to public sewerage		Electricity connection (legal or illegal)		Source	Year
	City	Poor 2/	City	Poor	City	Poor	City	Poor		
Cities in the study										
AMSS	92%	82%	86%	67%	88%	73%	99%	99%	World Bank	2000
Tegucigalpa	87%	62%	71%	25%	78%	37%	99%	94%	World Bank	2000
Panama City	97%	88%	74%	38%	70%	40%	98%	93%	World Bank	2000
Reference cities										
Bogota	99%				99%		99%		DANE 3/	1998
Belo Horizonte	99%				85%				IPEA 4/	1999
Buenos Aires 5/	79%				66%				Aguas Argentinas	1999
Cali	100%	100%	85%	73%	99%	99%	100%	100%	World Bank DANE (on sewerage)	1999 1998
Caracas		98%					99%	98%	ESA Consultores	1997
Curitiba	100%						60%		IPEA	1999
Guatemala City	64%	59%					74%	91%	ESA Consultores	1997
La Paz	65%				59%		94%		UNCHS	1996
Quito	94%				93%		100%		UNCHS	1996
Rio de Janeiro	93%				94%				IPEA	1999
Santa Fe	87%				65%				DIPOS- APSF 6/	2000

Sao Paulo	100%				91%				IPEA	1999
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Notes:

1. Includes intermittent water service, exterior connections, and service for less than 24 hours)
2. - The poor are defined as the first quintile of aggregate consumption in the case of AMSS, Tegucigalpa, and Panama City.
 - The poor in Cali correspond to the first income quintile.
 - The poor in Caracas correspond to households in three slum areas: Cotiza, Petare Norte, and La Vega.
 - The poor in Guatemala City correspond to households in two slum areas: Mezquital and El Gran Mirador.
3. DANE= Colombian statistical department.
4. Brazil's Instituto de Pesquisa Economica Aplicada
5. Only includes the coverage of the concession: Aguas Argentinas SA
6. Water concession for the city of Santa Fe, Argentina.

Annex 4
International Aid in El Salvador, Honduras, and Panamá
 (by end of 2001)
Table 1. El Salvador

WORLD BANK PORTFOLIO				
Project Name	Closing Date	Loan Amount US \$	Amount Disbursed as of:	Description
Secondary Education	2003-June 30	\$58.0 M	Feb. 15, 2001: \$12.98 M	The project aims to increase coverage of secondary education and build on the successes and new demands generated by the basic education reform process; and upgrade the quality of entrants to the labor market to increase El Salvador's competitiveness in the global market.
Public Sector Modernization	2001-Aug. 31	\$24.0 M	Feb. 15, 2001: \$10.35 M	The PSM-TAL has four components: (1) Institutional Restructuring (IR) and Debureaucratization; (2) Human Resources and Financial Mgmt.; (3) Privatization and Private Sector Participation in the Provision of Public Services; and (4) Project Coordination.
Land Administration	2001-June 30	\$50.0 M	Feb. 15, 2001: \$22.4 M	The project would finance a six-year, program to (a) consolidate, strengthen, and decentralize the CNR so that it can keep records updated; (b) acquire land data to regularize the national land registry and cadastre; and (c) carry out project administration. The project would cover all 14 departments of El Salvador.
Agricultural Sector Reform & Investment	2001-Dec. 31	\$40.0 M	Oct. 15, 2000: \$16.6 M	The project has two components: (1) reform and institutional development at MAG and CENTA to finance technical assistance, equipment, training, civil works and incremental operating, and (2) agricultural research and extension for small and medium farmers to finance technical assistance, vehicles, equipment, training, civil works rehabilitation, and incremental recurrent expenditures.
Energy Sector Modernization	2001-Dec. 31	\$65.0 M	Feb. 15, 2001: \$21.8 M	This project has 3 parts. Part A: Studies and Technical Assistance, which includes: <i>(a)Energy Sector Restructuring.</i> <i>(b)Power Sector Restructuring.</i> <i>(c)Engineering Studies and Training.</i>

				Part B. Rehabilitation, Modernization and Expansion of Hydroelectric Plants. Part C. Modernization of CEL's Telecommunications and Information Systems.
Competitiveness Enhancement	2001-June 30	\$16.0 M	Feb. 15, 2001: \$9.45 M	The project consists of three components: (i) a Business Environment component with four subcomponents; (ii) a Technological Capabilities component with three subcomponents; (iii) a Public Information component with two subcomponents. A fourth component would strengthen Project Administration. Project physical and cost contingencies comprise the remainder of project financing.
Basic Education Modernization	2001-June 31	\$34.0 M	Feb. 15, 2000 \$33.73 M	The project will: (a) Expand access to Preschool and Basic Education in 135 target municipios, and, (b) Improvement in education quality; and (c) Institutional modernization and strengthening.
Non-lending activities: -Strengthening of OPAMSS - Central America Urban Management Course		\$0.26 M	Sept 2001 \$0	The Cities Alliance grant will be used to help strengthen OPAMSS's capacity to design and implement urban upgrading projects at the metropolitan level. The course is addressed to national and local government officials, NGOs involved in urban development, and academia. The purpose is to provide tools for the comprehensive analysis of urban problems and the design of city development strategies.
WORLD BANK PIPELINE				
Judiciary Reform	FY 02	\$15		
Earthquake Emergency & Basic Health	FY 02	\$150 M		
Local Development	FY 03	\$60 M		
Rural Development	FY 03	\$50 M		
Metropolitan Barrios	FY 03	\$25 M		
INTERAMERICAN DEVELOPMENT BANK PORTFOLIO (*only urban/municipal*)				
Technical Cooperation for the Modernization of the Municipal Govt. of	Under execution	\$330 M		Reorganize the Municipality of San Salvador, (2) Land Titling and improvement of the legal system

San Salvador Technical Cooperation to improve financial systems in the municipality of San Salvador	Under execution	\$150 M		This project has 3 components: (1) Diagnosis and preparation of a plan to improve the financial management system; (2) Formulation of a technical design for accounting models; (3) Diagnosis and preparation of a plan to improve the tax management system.
INTERAMERICAN DEVELOPMENT BANK PIPELINE				
National Housing Program		\$50M		This project has 4 components: (1) Institutional strengthening to improve policy making and management in the housing sector; (2) Promote the development of a secondary mortgage market; (3) Support the FSV Reform; (4) Support FONAVIPO reform program for low income households.

Table 2. Honduras

WORLD BANK PORTFOLIO				
Project Name	Closing Date	Loan Amount US \$	Amount Disbursed as of:	Description
Transport Sector Rehabilitation	2001-March 30	\$85.0 M	Oct. 15, 2000 \$77.4 M	This project has 4 main components: (1) Feeder Roads Rehabilitation, (2) Periodic Maintenance of Paved and Unpaved roads; (3) Bridge Construction and Rehabilitation Program; (4) Runway Rehabilitation/Apron Construction-San Pedro Sula Airport and Technical Assistance, Training and Consultant Services
FHIS IV	2002-Feb. 28	\$67.5 M	Oct. 15, 2000: \$44.0 M	The project provides financing for a wide range of urgent small-scale social and economic infrastructure subprojects particularly in health, education, water and sanitation and economic infrastructure, as well as special programs for disadvantaged and vulnerable population groups including street children, women, the elderly and handicapped, and ethnic minorities.
Rural Land Management	2003-Jan. 31	\$34.0 M	Oct. 15, 2000: \$15.5 M	This project has five main components: (1) Land Administration Modernization Pilot; (2) Land Administration Modernization Expansion; (3) Natural Forest Management; (4) Fund for Upland Producers; and (5) Biodiversity Conservation.
Public Sector Modernization TAC	2000-June 30	\$9.6 M	\$6.4 M	The project has three components: (1) Private Sector Participation in Public Services (telecoms, civil aviation, ports); (2) Administrative Reform including Reform of Public Management; and (3) Project Coordination.
Public Sector Modernization SAC	2001-June 30	\$115.7 M	Oct. 15, 2000: \$83.2 M	The project has 4 components: (1) Private Sector Participation in Public Services (Telecommunications, Civil Aviation, Electric Power) (2) Institutional Restructuring Employment and Salary Regimes Rationalization in the Civil Service and Decentralized Institutions; (3) Reform of Public Management (Comprehensive Public Sector Human Resource Management and

				Effective Control Mechanisms, and (4) Integrated Financial Management and Investment Programming.
Basic Education	2001-June 30	\$30.0 M	Oct. 15, 2000: \$22.1 M	The project has 4 components: (1) Human Resources Strengthening ; (2) Physical Inputs in Infrastructure such as Instructional Materials; (3) Special Programs including a Bilingual Education Pilot and an Education System Evaluation; and (4) Management Strengthening in the Ministry of Education and Establish and support Departmental Districts.
Environmental Development PRODESAM	2001-Jan. 31	\$10.8 M	Oct. 15, 2000: \$8.97 M	The project has 4 components: (1) Environmental Planning and Legislation; (2) Environmental Quality Assessment; (3) Local Government Environment Management; and (4) Administration and Project Coordination.
Health & Nutrition	2000-Dec. 31	\$35.4 M	Oct. 15, 2000: \$8.97 M	The Supplemental credit was approved by the World Bank board on January 28, 1999 and will ensure the successful and effective completion of the previous Project. IDA is currently financing the Supplemental Credit in the amount of US\$10.4 (91% of project cost)
PROFUTURO-Interactive Environmental Learning & Science	2002-Oct. 30	\$8.3 M	Oct. 15, 2000: \$1.7 M	The project consists of three components: (1) Sustainable Development Resources; (2) Capacity Building and Communication; and (3) Project Implementation Unit (PIU).
Natural Disaster Mitigation	2005-Apr. 15	\$10.82 M	N/A	The project would be comprised of the following components: (1) Strengthening of Monitoring, Forecasting, Early Warning and GIS-based Information Management; (2) Strengthening of National Capacity to Support Emergency Response at Municipal Level; and (3) Building up Capacity in Disaster Mitigation at Local Government Level.
Economic & Financial Mgmt. TA	2001-Aug. 30	\$19.0 M	N/A	The project consists of six components: (1) Public Finance Management and Internal Control; (2) Administrative and Technical Restructuring of the Comptroller

				General's Office (CGR); (3) Human Resource Management; (4) Developing Planning and Evaluation Institutional Capacity; (5) Consolidating Reforms to Regulatory Frameworks and Broadening Privatization Efforts; and (6) Public Procurement.
Road Reconstruction and Improvement	2006-Mar. 31	\$66.5 M	N/A	The project is composed of the following components: (1) Road Reconstruction, Rehabilitation and Improvements; (2) Rural Transport Infrastructure (roads and bridges); (3) Road Maintenance Pilot Project; and (4) Consultants/TA/Training/Studies
Access to Land Pilot Project	N/A			The project has two main components: Land Administration Modernization, and Land Fund. (1) Land Administration Modernization component would consist of three subcomponents: (a) Land Information System; (b) Capacity Building of Personnel to manage the system; and (c) Legal and Administrative Institution Building; and (2) Land Fund component has four subcomponents: (a) Land Purchase; (b) Complementary Investments; (c) Technical Assistance and Legal Services; and (d) Administration and Promotion.
WORLD BANK PIPELINE				
Sustainable Coastal Tourism	FY 02	\$5M		
Health	FY 02	\$22M		
INTERAMERICAN DEVELOPMENT BANK PORTFOLIO (*only urban / municipal*)				
Municipal Development in San Pedro Sula and Tegucigalpa	Under execution	\$40M (Tegu) \$30M (SPS)		Project components for SPS and Tegucigalpa: (1) Technical assistance to improve financial administration in the municipalities and improve the capacity of service supervision; (2) Execution of action plans to restructure these services, and (3) Eligible municipal investments for the non/transerable responsibilities of private participants following the restructurization program.

				<p>Project components for SPS: (1) Promote reorganization of the municipality; (2) assist in the modernization of the municipal finance sector; (3) transfer of environmental management to the Municipality; (4) contribute to the business management of the municipality water company; (5) endorse, establish and finance key investments for public transportation and a road network; (6) assist in the contracting of garbage disposal services, (7) support the municipality in the execution of an integrated approach for urban upgrading. Project components for Tegu (1) Modernize Municipal Finances; (2) transfer environmental management of the Municipality; (3) endorse, establish and finance a mechanism to insure the maintenance of roads and public transportation; (4)) assist in the contracting of garbage disposal services, and (5) assist the Municipality to implement an integrated strategy to legalize land ownership, and urban upgrading.</p>
US AGENCY FOR INTERNATIONAL DEVELOPMENT PORTFOLIO (*only urban/regional*)				
Honduras Municipal Development in Secondary Cities		\$500M		The project has 2 components: (1) to institutionalize responsive and effective municipal government through (1) advocacy and legal reform; (2) training and technical assistance in municipal administration, and (3) investments in local infrastructure.

Table 3. Panama

WORLD BANK PORTFOLIO				
Project Name	Closing Date	Loan Amount US \$	Amount Disbursed as of:	Description
Roads Rehabilitation	2002-Mar. 31	\$60.0 M	Sept. 30, 2000: \$48.4 M	The project has 3 components : (1) an urban transport component; (2) an inter-urban roads component, and (3) a policy reform and an institutional strengthening component aimed at: (a) reforming the regulatory policy of the for-hire road transport services; (b) improving overall transport sector planning and policy formulation; (c) training MOP staff to prepare projects for private sector implementation and to manage the contracts; and (d) preparing studies for possible follow-up activities.
Social Investment Fund (FIS)	2001-Dec. 31	\$28.0 M	Sept. 30, 2000 : \$7.1 M	The project includes three components. (1) The infrastructure component and (2) The pilot programs component includes (a) a targeted school-feeding program; (b) a <i>Grupos Vulnerables</i> (GV) program that funds social services via NGOs; and (c) micro-enterprise activities; and (3) The project management component seeks to strengthen the capacity of FIS staff in participatory planning and community maintenance.
Basic Education	2001-Dec. 31	\$35.0 M	Sept. 30, 2000 : \$29.2 M	The project has three components: (1) Improve the quality of basic education; (2) Expansion of Non-Formal Preschool Education and (3) Institutional Strengthening of MOE.
Rural Health	2002-June 30	\$25.0 M	Sept. 30, 2000 : \$11.0 M	The project consists of three components: (1) The Nutrition Component is targeted to the 28 poorest districts; (2). The Rural Water Supply and Sanitation Component is designed to help the Ministry of Health to construct new water supply systems in unserved communities; (3) The Institutional Strengthening Component is designed to strengthen the operations and training programs for

				the staff of a number of institutions by providing funding for studies, participatory research, poverty monitoring, project reviews, staff training and project administration.
Rural Poverty Natural Resources	2002-Jun. 30	\$22.5 M	Sept. 30, 2000 : \$9.2 M	The principal objective of this project is to apply, on a pilot basis, methodologies that would channel financial resources to rural communities to assist them in promoting sustainable productive systems, and thereby reduce rural poverty, the degradation of natural resources and migration.
Health Sector Reform Pilot	2001-Dec. 31	\$4.3 M	Sept. 30, 2000 : \$0.5 M	The piloting of a new model for providing, organizing and financing health services in the SMHR is expected to: (a) increase access and facilitate utilization of health services, particularly of the poor; (b) improve the efficiency of health expenditures; and c) carry out institutional strengthening activities at the MOH central level to implement the pilot in the SMHR, and initiate preparation activities for the scaling up of the reform to other Health Regions.
Basic Education II	2005-June 30	\$35.0 M	N/A	This project has the following components: (i) Provision of textbooks and supplementary reading materials to all students attending public primary and lower secondary schools; (ii) finance about 9000 scholarships to students selected on the basis of poverty criteria; (iii) Pilot Project of Distance Basic Education (Telebásica); (iv) Rehabilitation of Educational Infrastructure; (v) Expansion of the Non-Formal Preschool Education Program; and (vi) Institutional Strengthening of the Education System.
WORLD BANK PIPELINE				
Public Policy Reform TA	FY 02			
Trade Labor	FY 03			
FES II	FY 03			
Canal Watershed	FY 04			
Health	FY 04			

INTERAMERICAN DEVELOPMENT BANK (*only urban/municipal*)				
Panama City Comprehensive Municipal Development Program	Under execution	\$532M		This project has 5 components: (1) Overall diagnostic of the municipality; (2) Service improvement; (3) Marginal Neighborhood improvement; (4) Environmental and Urban Planning; and (5) Dimensioning, structuring and assessing the feasibility of the City's four-year capital investment program.
INTERAMERICAN DEVELOPMENT BANK PIPELINE (*only urban/municipal*)				
Municipal Development and Promotion of Decentralization		\$14M		This project has 3 components: (1) Decentralization and Municipal Development, (2) Modernization of Municipal Government and City Participation, and (3) Local investment.
Support for the Strengthening and Development of the Municipality of Panama		\$70M		This project has 2 components: (1) Establish bilateral mechanisms to promote cooperation between institutions; and (2) Finalize a strategy for intervention.
US AGENCY FOR INTERNATIONAL DEVELOPMENT PORTFOLIO (*only urban/regional*)				
Sustainable Management of the Panama Canal Watershed	Under execution	\$27M		This project has 3 components: (1) Develop and implement integrated Solid Waste management; (2) Strengthen local government and private sector capacity for environmental management, and develop environmental action plans; and (3) improve environmental practices of industries.

inactive

Report No.: 22590 LAC
Type: ER