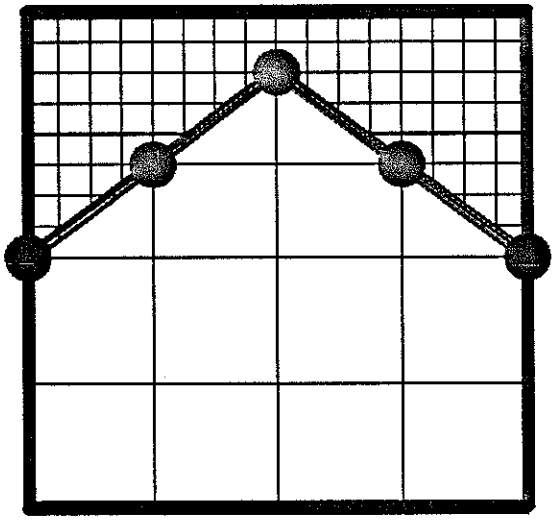
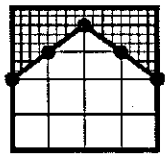
THE HOUSING INDICATORS PROGRAM

EXTENSIVE SURVEY



A JOINT PROGRAM OF THE UNITED NATIONS CENTRE FOR HUMAN SETTLEMENTS AND THE WORLD BANK
ROOM S10-155, INURD, THE WORLD BANK, 1818 H STREET NW, WASHINGTON DC 20433, USA
TELEPHONE: (011) 202-473-1013 FAX: (011) 202-477-1052



THE HOUSING INDICATORS PROGRAM

THE EXTENSIVE SURVEY

PART 1 -- OVERVIEW

The first part introduces the Extensive Survey and the Housing Indicators Program: it discusses objectives, background, goals, methodology, regional workshops, country seminars, and outputs.

PART 2 -- CONCEPTUAL FRAMEWORK

The second part discusses the conceptual framework of the Program: it sets out and defines the proposed key indicators, suggests the policy-making potential of the indicators through several illustrative relationships, and reports the research results in three cities where the indicators have already been collected.

PART 3 -- INDICATOR MODULES

The third part presents the modules for reporting the key indicators: each module defines the key and complementary indicators, explains their significance, and requests a response.

PART 4 -- REGULATORY AUDIT

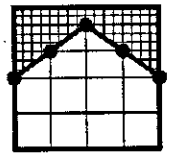
The fourth part presents five modules for reporting on the regulatory and institutional environment of the housing sector.

PART 5 -- WORKSHEETS

The fifth part contains worksheets for the modules: each worksheet suggests appropriate persons who can be consulting the module; discusses data collection strategies; and, where appropriate, provides a methodology for assembling information necessary to calculate an indicator.

PART 5 -- DISKETTE

The fifth part is a floppy diskette that integrates the worksheets and the modules in a Lotus 1-2-3 spreadsheet. Indicators are calculated automatically as data is entered in the worksheets.



THE HOUSING INDICATORS PROGRAM

THE EXTENSIVE SURVEY

PART 1 -- OVERVIEW

This part introduces the Extensive Survey within the context of the Housing Indicators Program: it discusses objectives, background, goals, methodology, regional workshops and country seminars, and outputs.

1. The Problem: Lack of Tools for Managing the Housing Sector as a Whole

Existing tools for managing the housing sector, particularly in developing countries, are almost wholly inadequate for:

a. understanding what a well functioning housing sector is and monitoring its performance;

b. understanding the relationship between policies and sectoral outcomes; or

c. understanding the relationships between the performance of the housing sector and broader social and economic development outcomes.

Deficiencies in data and lack of serious quantative analysis considerably hamper the ability of governments to make informed choices concerning desirable housing sector policies, and other policies which have major impacts on the housing sector. There is often no clear sense of the norms in a well functioning housing sector, or of how best to bring about or move toward those norms. As a result, costly policy failures occur, inhibiting the development of the housing sector and frustrating broader development objectives.

2. The Objective: Creating Tools for Managing the Housing Sector

The global objective of the Housing indicators Program in general, and the Extensive Survey in particular, is to develop conceptual, analytical and institutional frameworks for managing the housing sector as a whole. More specifically, the program has three aims:

a. Providing a comprehensive conceptual and analytical framework for monitoring the performance of the housing sector;

b. Providing important new empirical information on the high stakes of policy making in the housing sector for societies and economies; and

c. Initiating new institutional frameworks that will be more appropriate for formulating and implementing future housing policies, in the

light of new research findings.

3. The Housing Indicators Solution: Implementing the Global Shelter Strategy

For any realistic turn towards effective being able to manage the housing sector as a whole to occur, deficiencies in data availability and applicability must be corrected. Towards this end, the Housing Indicators Program was initiated jointly by the World Bank and the United Nations Centre for Human Settlements (Habitat) in October, 1990, and is expected to continue through 1991 and beyond. It is an outgrowth, and indeed an essential step, in the implementation of the Global Shelter Strategy for the Year 2000 endorsed by the UN General Assembly in 1988.

The Global Shelter Strategy calls for a fundamental shift in governments' role in housing - from attempting to provide housing directly, a policy which has usually failed, toward an enabling role, one which facilitates, energizes and supports the activities of the private sector - both formal and informal - in housing development. This shift necessarily requires governments to obtain a broader overview of the housing sector as a whole, and to better understand the mechanisms governing housing sector performance. There is a widespread recognition among governments that this requires better data and better, policy-oriented analysis of such data.

Now that the focus of government attention must shift to the housing sector as a whole, and away from government-centered housing delivery, there is a need for operational tools for measuring sector performance and for comparing it across time and space. Such tools are now necessary for seeing housing policy in a more global, comparative perspective where lessons learned in one country can become more relevant to another. And it is this comparative perspective which may be invaluable for countries in charting their paths, in formulating development objectives, and in measuring their attainment vis-a-vis expected norms.

To date, the Program has received broad international support as well as financial support from a number of development agencies. So far, in addition to support provided by the co-sponsors of this program, resources have been provided or pledged by the UN Development Programme, the US Agency for International Development, Finnida - the Finnish Development Agency, and the US National Association of Realtors.

4. The Research Agenda: Developing Indicators for Policy-Making

The Housing Indicator Program seeks to answer three fundamental questions:

(1) Can informative, robust, reliable and cost-effective techniques be developed to:

   (a) measure key aspects of housing sector performance;

   (b) establish the linkages between the socio-economic and policy environment and key housing sector outcomes; and

(c) establish the linkages between housing sector outcomes and broad social and macro-economic performance?

(2) How should the use of key indicators of housing sector performance be integrated into the formulation of national shelter strategies and international development assistance to the housing sector? and

(3) What institutional developments can be initiated to ensure that housing indicators will be used effectively in informing housing sector policy?

5. The Program Structure

To explore these questions, the Housing Indicators Program has three major components:

(1) Existing Data Analysis: Household survey and associated socio-economic data already exists for 10-12 countries that have been studied earlier by the World Bank. These data provide information on housing supply and demand parameters and on housing quality and quantity for cities of different sizes and at different levels of economic development. This information is presently being used to formulate hypotheses on bivariate and multivariate relationships among housing indicators. These hypotheses will be tested in the cross-country comparison which will be made possible with the results of the Extensive Survey;

(2) Intensive Surveys of the Housing Sector: Intensive surveys have now been initiated in two countries (Hungary and the Philippines), and may be extended to a third country (Ghana) later this year. These Intensive Surveys, which include a Household Survey as well, aim at obtaining values for a comprehensive set of approximately 150 housing indicators. The objectives of these surveys are:

(a) to assist on-going efforts at formulating and implementing National Shelter Strategies;

(b) to establish monitoring criteria for housing sector performance; and

(c) to evaluate the validity and cost-effectiveness of specific indicators;

(d) to determine how best to integrate information on housing indicators into the process and the institutional framework for housing policy formulation and implementation; and

(3) Extensive Surveys of the Housing Sector: The Extensive Survey will be conducted in one major city in each of 35-40 countries in all five continents. Each survey will aim at obtaining values for 25 key indicators of housing sector performance, an equivalent number of

alternate indicators, and 10 indicators of broad socio-economic performance which appear to be related to housing sector outcomes.

6. The Extensive Survey

The specific component of the Program for which international cooperation among in-country experts is being sought is the Extensive Survey of Housing Sector Performance in 40 countries in all five continents.

The objectives of this Extensive Survey are:

(1) to create a basic set of 20-30 key indicators for the housing sector;

(2) to obtain current estimates for these indicators in 35-40 countries; and

(3) to establish key relationships among these indicators, and between them and key indicators of social and economic development, using cross-sectional data from the extensive surveys in these countries.

The more practical aims of the Extensive Survey are:

(1) to provide an analytical tool for governments for measuring the performance of the housing sector in a comparative, consistent, and policy-oriented perspective;

(2) to establish base-line data in participating countries for new national shelter strategies and new housing sector loans;

(3) to create a framework for comparing housing sector performance between cities and countries, as well as between different time periods;

(4) to contribute toward establishing a new institutional framework within countries for formulating and implementing sector-wide housing policies; and

(5) to work toward the creation of an international network of experts and institutions capable of overseeing the development of the housing sector.

7. Outputs: Institution Building and Research Reports

a. Regional Workshops and Country Seminars

(1) Regional Workshops. To ensure the reliability and comparability of data, and to begin to form the international network of experts and institutions engaged in housing sector monitoring, a series of Regional Workshops will be conducted in Asia, Anglophone Africa, Francophone Africa, Europe and the Middle East, and Latin America and the Caribbean.

The workshop in each region will discuss the findings in each country in a comparative regional framework, and follow-up activities within each country and at the international level will be planned. Program staff as well as regional World Bank staff will participate in the regional workshops.

(2) In-Country Seminars. Following the regional workshops and a preliminary compilation of the indicator data from all participating countries, the results will be communicated to the Expert-Coordinators in each country. Each Expert-Coordinator will be then be expected to conduct an In-Country Seminar. The objectives of the In-Country Seminars are:

(a) to present the comparative findings of the Extensive Survey;

(b) to examine the policy implications of the findings; and

(c) to assess the practical implications of the survey for further, more intensive data collection and analysis in support of new housing policy initiatives.

Funding for these In-Country Seminars is beyond the scope of the Extensive Survey itself, but will be sought at a later stage - either as part of a dissemination phase of the Housing Indicators Program or as part of the technical cooperation activities of UNCHS and UNDP.

b. Research Outputs

Alongside the institution building outputs discussed above, the Program has four major kinds of research outputs:

(1) Tables showing indicator values for a set of 25 indicators, as well as other alternate and socio-economic impact indicators, for 40 cities in selected countries;

(2) a set of tested hypotheses, described both graphically and verbally using cross-country comparisons, concerning the relationships among these indicators; and

(3) a monograph, provisionally entitled Housing Indicators for Policy Making. The monograph will have two main parts. The first part introduces the conceptual framework for using housing sector indicators to measure sector performance and to guide policy, and discusses key indicators and the relationships among them. The second part discusses methods for data collection, data processing and analysis, institutional arrangements for creating and using indicators, and comparative costs of alternative approaches. Needless to say, all contributors to the Program will be credited in the monograph.

(4) In-Country research papers by Expert-Coordinators and their associates, using comparative international data on the indicators to discuss national housing policy and future monitoring of the

housing sector. (This is not seen as a requirement of the program, but as an opportunity for those participating in it).

8. Expenses; Level of Effort.

The Housing Indicators Program will cover travel and per-diem expenses for the participation of Country-Based Consultants in the Regional Workshops, as well as make available to consultants US$ 5000 for in-country data collection expenses. It is estimated that the coordination and data collection effort will require 4 working weeks, and that each Regional Workshop will be conducted over three working days.

9. Schedule.

Following the receipt of these materials, preliminary data collection for the indicators can commence. The preliminary communication of results will take place via telecommunication in June, 1991. The regional workshops, are scheduled for July and early August, 1991. It is expected that the preliminary compilation of results from the Extensive Survey will be available by the end of November 1991. In-Country Seminars can therefore be planned for late 1991 or early 1992.

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PART 2 -- CONCEPTUAL FRAMEWORK

This part discusses the conceptual framework of the Program: it defines the proposed key indicators, suggests their policy-making potential indicators through several illustrative relationships, and reports the research results in four cities where the indicators have already been collected.

1. Modelling the Housing Sector as a Market

The proposed research views the housing sector as a market, and applies a set of norms concerning what constitutes a well functioning housing market from the point of view of different actors such as consumers, producers, providers of finance, construction workers, and all levels of government. The norms of a well functioning market are a list of desired outcomes from the point of view of each of these actors. The indicators are designed to elicit information on the performance of the sector with respect to these norms.

2. The Key Indicators

The Program has developed a conceptual framework based on the provisional list of 25 key **housing indicators** and 10 **socio-economic impact indicators**. These indicators were distilled from a comprehensive list of 160 indicators developed at a HABITAT workshop in Nairobi in October 1989 and can be divided into four major groups:

(1) Housing **Demand** Indicators;
(2) Housing **Supply** indicators;
(3) Housing **Output** Indicators; and
(4) Socio-Economic **Impact** Indicators.

Some of these indicators measure the performance of the housing sector in and of itself (e.g. rent as a percentage of household income), both between different time periods and between cities and countries; others measure the impacts and effects of policies, of policies affecting supply and demand on housing sector activity, and of sector activity on the economy as a whole. In addition, some housing policies which affect supply and demand also adversely affect the economy as a whole. In graphic terms, the causal relationships among the four major groups of indicators can be described in a simple diagram (see Figure 2 below).

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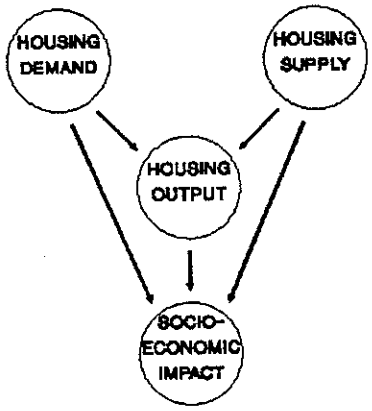


Figure 2

A provisional list of the 25 key housing indicators and their associated definitions appears below.

Indicator 1: Households Per Dwelling Unit
defined as the ratio between the total number of households and the total number of dwelling units of all types in the urban area during the current year.

Indicator 2: Homelessness
defined as the number of people per thousand of the city population which sleep outside dwelling units, on streets, in parks and railroad stations, under bridges or in temporary shelter in charitable institutions.

Indicator 3: Housing Production
defined as the estimated total number of units (in all sectors) produced annually per 1000 population.

Indicator 4: Housing Investment
defined as the total annual investment in housing (not including land) as a percentage of GDP.

Price Indicators:

Indicator 5: The House-Price-to-Income Ratio
defined as the ratio of the median free-market price of a dwelling unit and the median annual household income.

Indicator 6: The Rent-to-Income Ratio
defined as the ratio of the median annual rent of a dwelling unit and the median annual household income.

Indicator 7: The Housing Price Index

defined as the annual rate of change of the housing component of the Consumer Price Index, measured for the most recent year.

6. Housing Quality Indicators

Structure and Density:

Indicator 8: Floor Area Per Person
defined as the median enclosed usable floor area per person within the housing unit.

Indicator 9: Permanent Structures
defined as the percentage of structures of permanent and semi-permanent materials.

Infrastructure Services:

Indicator 10: Water Connection
defined as the percentage of dwelling units with their own water connections.

Indicator 11: Journey to Work
defined as the median number of minutes of the journey- to-work for commuters in public transport in the city.

Tenure:

Indicator 12: Unauthorized Housing
defined as the percentage of the total housing stock in the city which was built without permission.

Choice:

Indicator 13: Residential mobility
defined as the percentage of all households who moved their residence last year (including newly formed households).

Indicator 14: The Vacancy Rate
defined as the percentage of the total number of completed dwelling units which are presently unoccupied.

Indicator 15: Owner-Occupancy
defined as the percentage of all units which are owner- occupied, and where the owner owns the housing unit and the land which belongs to this unit.

7. Housing Demand-Side Indicators

Financial Indicators:

Indicator 16: The Housing Credit Portfolio
defined as the ratio of outstanding mortgage loans to all outstanding credit in both commercial and government banks.

Indicator 17: The Credit-to-Value Ratio
defined as the ratio of total annual loans for housing to total estimated annual investment in housing (both formal and informal) in the urban area.

Fiscal Indicators:

Indicator 18: Housing Subsidies
defined as housing subsidies as a percentage of the government budget last year.

Indicator 19: Targeted Subsidies
defined as the percentage of housing subsidies reaching below-median-income households

8. Housing Supply Indicators

Inputs:

Indicator 20: The Land Development Multiplier
defined as the average ratio between the price of a square meter of a developed plot and a square meter of undeveloped land on the urban fringe last year.

Indicator 21: Infrastructure Expenditures Per Capita
defined as the ratio of the total expenditures by all levels of government on infrastructure services (roads, sewerage, drainage, water supply, electricity and garbage collection) during the current year and the urban population.

Indicator 22: Construction Cost
defined as the present replacement cost (labor, materials, on-site infrastructure, management and contractor profits) per square meter of a median-priced housing unit.

Indicator 23: Import Share in Construction
defined as the percentage of the total cost of construction of a newly-built median-priced house attributable to direct (material) and indirect (equipment, transport etc.) imports.

Labor and Management:

Indicator 24: Industrial Concentration
defined as the percentage of new formal-sector housing units constructed by the five largest developers (either private or public) in the urban area last year;

Indicator 25: The Skill Ratio
defined as the ratio between the average wage of a skilled construction worker (with a given number of years of experience in a set of defined trades), and an unskilled construction worker.

In addition to these 25 indicators data would also be collected in the extensive surveys concerning **complementary indicators.** Population growth rates as well as household formation rates, the urban minimum wage as well as median income, and several financial variables such as the spread between mortgage lending rates and deposit or prime rates will also be collected.

To facilitate the collection of indicator data, 12 data collection modules have been developed, each requiring a particular field of expertise. A housing sector Country-Based Consultants has been identified in each country included in the survey to coordinate the collection of data from specialists.

3. Regulatory Audit

In addition to the modules described above, there is a Regulatory Audit which contains five modules:

(1) The Financial Regulations Module;

(2) The Tenure Regulations Module;

(3) The Local Government Regulations Module;

(4) The Building Regulations Module; and

(5) The Land Regulations Module.

4. Research Hypotheses

The key indicators offer tantalizing suggestions of their analytic power for policy-making in the housing sector. Yet few of the apparent interconnections have ever been tested empirically. One relationship that has been touched on in earlier research is the relationship between the House-Price-to-Income Ratio and a generalized Index of Macro-Economic Regulatory Stringency known as the Agarwala Index (see Figure 3).

As can be seen, there is a clear positive relationship between these two indicators: the more distorted the economy, as a result of inappropriate regulations, the higher house prices are in relation to incomes. The proposed research aims at constructing one or more indices of regulatory stringency specific to the housing sector.

Housing Prices and Economic Distortions

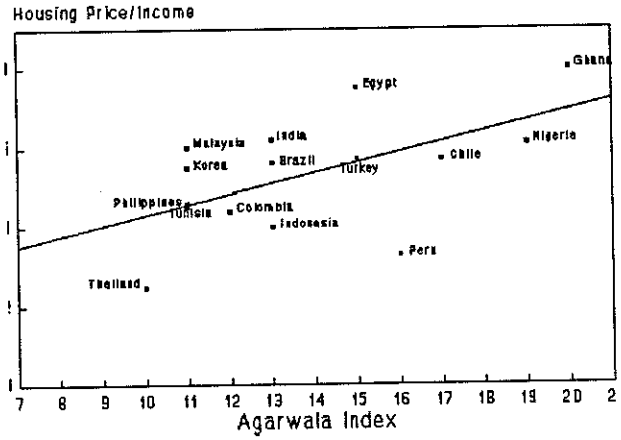


Figure 3

Another example of a bivariate relationship is the inverse relationship between Persons-Per-Room and GNP per Capita: (see Figure 4). This relationship is self-explanatory: higher income countries have less overcrowding. It is important to note, however, that countries with highly regulated housing sectors such as Malaysia and Korea have more overcrowding than that expected by their level of incomes. With data for a large number of countries, it is possible, therefore, to see not only the relationships between variables but to identify countries with higher or lower expected values and to seek to explain these variations. Unfortunately, even data for this simple relationship have not been compiled for most developing countries in the years beyond 1971.

Persons per Room and Income

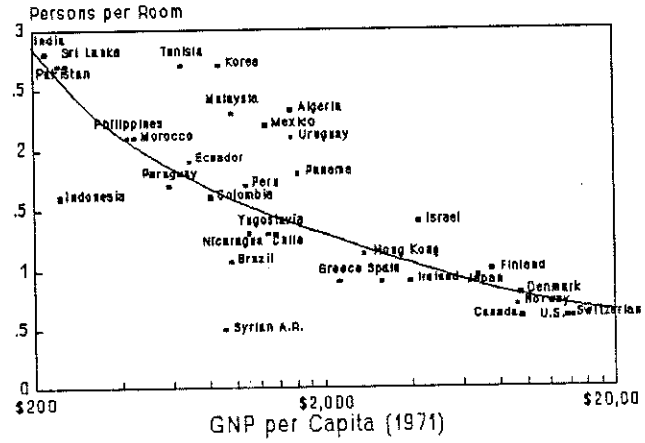
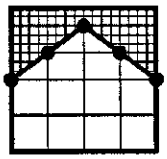


Figure 4

5. Key Indicator Data Sets Completed to Date

Attached is a sheet reporting the key indicators for the four cities to have completed the extensive survey so far: Manila, Kingston, Bangkok, and Washington DC. (to be completed during field testing of extensive survey in Feb. 1991)

Key Indicators	Manila	Kingston	DC	
1: Households Per Dwelling Unit				
2: Homelessness				
3: Housing Production				
4: Housing Investment				
5: The House-Price-to-Income Ratio				
6: The Rent-to-Income Ratio				
7: The Housing Price Index				
8: Floor Area Per Person				
9: Permanent Structures				
10: Water Connection				
11: Journey to Work				
12: Unauthorized Housing				
13: Residential mobility				
14: The Vacancy Rate				
15: Owner-Occupancy				
16: The Housing Credit Portfolio				
17: The Credit-to-Value Ratio				
18: Housing Subsidies				
19: Targeted Subsidies				
20: The Land Development Multiplier				
21: Infrastructure Expenditures Per Capita				
22: Construction Cost				
23: Import Share in Construction				
24: Industrial Concentration				
25: The Skill Ratio				



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PART 3 -- MODULES

This part presents the modules for reporting the key indicators; each module defines the key and alternate indicators, explains their significance, and requests a response.

The eleven modules are listed below:

(1) Coordinator Module;

(2) Demographic Module;

(3) Financial Module;

(4) Government Budget Module;

(5) Housing Quality Module;

(6) Local Government Module;

(7) Building Regulations Module;

(8) Transportation Module;

(9) Real Estate Development Module;

(10) Construction Industry Module; and

(11) Economic Statistics Module;

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TELEPHONE: (011) 202-473-1013 FAX: (011) 202-477-1052

Significance of the House-Price and Rent to Income Indicators:

In a well functioning housing market, housing expenditures should not take up an undue portion of income and house values should be fairly stable. If these conditions do not hold, it is an indication of an underlying problem which is restricting or causing instability in the supply of housing.

The **House-Price to Income** and **Rent to Income** indicators are designed to measure these aspects of the housing market. These are robust indicators which quantify a wide range of supply and demand distortions, on both the real and the regulatory side.

Key Indicators:

Indicator 5: House Price to Income Ratio. 5. ☐

Defined as the ratio of the median free-market price of a dwelling unit and the median household income.

Indicator 6: Rent to Income Ratio. 6. ☐

Defined as the ratio of the median annual rent of a dwelling unit and the median household income of renters.

Alternate Indicators:

Indicator 5a: Rent to house price ratio. 5a. ☐

Defined as the ratio of the median annual rent of a dwelling unit and the median free market price of a dwelling unit.

THE DEMOGRAPHIC MODULE

Significance of the demographic indicators:

Demographic pressure, both through migration and natural increase, has steadily increased in many urban areas of the developing world during the last two decades, and shows no sign of abating. Ideally, a housing market should provide a separate dwelling for every household with adequate living space. If it does not, this is an indication that there are underlying supply problems restricting housing production.

The success of the shelter in this respect can be measured directly through the **Household per Dwelling Unit** indicator. Ceteris Parabus, a large value for this indicator points to insufficient flexibility of the shelter sector in meeting rapid household formation.

Key Indicators:

Indicator 1: Household per dwelling unit. 1. [ ]

Defined as the ratio of the total number of households and the total number of dwelling units of all types in the urban area during the current year.

Alternate Indicators:

Indicators 1a and 1b may be used jointly to replace indicator 1.

Indicator 1a: Urban population growth. 1a. [ ]

Defined as the average rate of increase in the urban population in the metropolitan area during the last five years.

Indicator 1b: City population. 1b. [ ]

Defined as the total population in the urban area.

Indicator 1c: Average household size. 1c. [ ]

Defined as the average number of persons per household during the last five years.

THE FINANCIAL MODULE

Significance of the financial indicators:

Financial depth and strength are key elements in a well functioning housing sector. Adequate financing should be available to smooth housing consumption over time for consumers, and to enable efficient land development and construction for producers. From the point of view of housing finance institutions, they should be able to compete for deposits on even terms with other financial institutions, lend on positive real interest rates, be permitted to provide mortgage lending instruments in demand by households, and have their interests protected by an adequate system of property rights and by the existence of public or private institutions which insure against undue mortgage lending risk.

The **Housing Credit Portfolio** indicator is a measure of the size of the housing finance sector and its ability to provide households with the funds necessary to smooth their consumption patterns over time. If this ratio is very small, the institution is possibly facing constraints making it difficult to supply an adequate amount of finance. The ability of consumers and producers to use housing finance optimally is demonstrated through the **Credit to Value Ratio**, which gives the proportion of housing investment made through the use of credit. If this ratio is very small, a large proportion of housing investment is necessitating cash outlays up front, making development, construction, and final purchase of shelter difficult.

Key Indicators:

Indicator 16: Housing Credit Portfolio. 16. [ ]

Defined as the ratio of total mortgage lending to all lending outstanding in both commercial and government banks.

Indicator 17: Credit to value ratio. 17. [ ]

Defined as the ratio of lending for housing last year to total investment in housing (both formal and informal) last year in the urban area.

Alternate Indicators:

Indicator 16a: New housing credit. 16a. [ ]

Defined as the ratio of housing credit made last year to total new lending last year.

Indicator 16b: Mortgage-to-prime difference. 16b. [ ]

Defined as the average difference in percentage points between interest rates on mortgages and the prime interest rate in the commercial banking system.

Indicator 16c: Mortgage-to-deposit difference. 16c. [ ]

Defined as the average difference in percentage points between interest rates on mortgages and one-year deposits in the commercial banking system.

Indicator 16d: Mortgage default rate. 16d. [ ]

Defined as the percentage of mortgage loans more that three months in arrears in both commercial and government banks.

Indicator 16e: Credit to rental housing. 16e. [ ]

Defined as the percentage of overall housing credit lent for rental housing.

THE GOVERNMENT BUDGET MODULE

Significance of the budget indicators:

A well functioning housing sector should not add to the budgetary problems of the government. To the extent that the sector draws from the budget, the beneficiaries should be households who cannot afford minimum housing.

Ideally, the housing sector should be a net contributor to the budget. The extent to which the shelter sector is a drain on government is measured through the **Housing Subsidies** indicator. Large subsidies could imply that the government is being inefficient in its interventions in the housing market, for example through focusing on public housing rather than an enabling strategy. In addition, it is often the case that the actual beneficiaries **Targeted Subsidies** measure the effectiveness of current subsidies in reaching targeted households.

Key Indicators:

Indicator 18: Housing subsidies. 18. [ ] %

Defined as housing subsidies as a percentage of the government budget last year.

Indicator 19: Targeted subsidies. 19. [ ] %

Defined as the percentage of housing subsidies reaching below-median-income households.

THE HOUSING QUALITY MODULE

Significance of the housing indicators:

Housing consumers view their dwelling as providing a bundle of characteristics such as adequate protection from the elements, fire, and natural disaster, adequate living space, infrastructure services and amenities. In addition, they want there to be enough mobility not to restrict changes of employment, and the opportunity to own their own home. Governments are concerned with whether or not the sector provides adequate quality dwellings to ensure public health and safety standards are maintained, as well as fulfilling its obligation to provide infrastructure and services and ensuring that all households are housed.

Floor Area per Person measures whether or not housing is providing adequate living space, while the **Permanent Structures** indicator quantifies the protection provided by the dwelling as well as the level of public health and safety standards. **Residential Mobility** and the **Vacency Rate** give measures of the ability of households to relocate, and the **Water Connection** indicator measures infrastructure provision. **Homelessness** is an obvious measure of the success or failure of the system in providing housing for all households, while the **Unauthorized Housing** indicator measures the proportion of the population housed outside government health and safety standards.

Key Indicators:

Indicator 2. Homelessness: 2. [ ]

Defined as the number of people per thousand of the city population which sleep outside dwelling units, on streets, in parks and railroad stations, under bridges or in temporary shelter in charitable institutions.

Indicator 8. Floor area per person: 8. [ ]

Defined as the median usable living space per person last year.

Indicator 9. Permanent Structures: 9. [ ]

Defined as the percentage of structures of permanent and semi-permanent materials.

Indicator 10. Water Connection: 10. [ ] %

Defined as the percentage of dwelling units with their own water connection.

Indicator 12. Unauthorized Housing: 12. [ ] %

Defined as the percentage of the total housing stock in the city which was built without permission (includes squatters).

Indicator 13. Residential Mobility: 13. [ ] %

Defined as the percentage of households that moved last year.

Indicator 14. The Vacancy Rate: 14. [ ] %

Defined as the percentage of the total number of completed dwelling units which are presently unoccupied.

Indicator 15. Owner-Occupancy: 15. [ ] %

Defined as the percentage of all units which are owner-occupied and where the owner both owns the housing unit and perceives his or her tenure in the underlying land to be securely held.

Alternate Indicators:

Indicator 12a. Squatter Housing: 12a. [ ] %

Defined as the percentage of the total housing stock in the city which is occupying land illegally.

Indicator 12b. New Squatter Housing: 12b. [ ] %

Defined as the percentage of housing built within the last year in the city, which is occupying land illegally.

Indicator 12c. New Unauthorized Housing: 12c. [ ] %

Defined as the percentage of housing built within the last year in the city, which was built without permission (includes squatters).

THE LOCAL GOVERNMENT MODULE

Significance of the Local Government Indicators:

Overregulation or inappropriate regulation by local government can powerfully distort the performance of the housing sector. For example, inflexible rent control systems often lead to reduced housing quality and lower housing production.

Alternate Indicators:

Indicator a: Rent controls. a. [ ] %

Defined as the percentage of the total rental stock under rent control.

Indicator b: Property Tax Receipts. b. [ ] %

Defined as the percentage of property tax receipts in local revenue.

Indicator c: Property Tax Rate. c. [ ] %

Defined as the percentage of property tax receipts to the total asset value, including both land and structure, of the housing stock.

THE BUILDING REGULATIONS MODULE

Significance of the Land Indicators:

Inappropriate or inefficient land development regulations increase the cost of formal housing production. Lengthy permits delay, overly strict land subdivision controls, and large minimum plot sizes will be correlated with a more prevalent informal housing sector and a higher house-price-to-income ratio.

Alternate Indicators:

Indicator a: Permits Delay. a. [months]

Defined as the average number of months required to obtain permits, zoning approvals, and titling for land subdivision and house construction in residential developments.

Indicator b: Land Subdivision Controls. b. [%]

Defined as the maximum salable residential land as a percentage of total land in a typical formal sector residential development.

Indicator c: Minimum Plot Size. c. [m2]

Defined as the minimum allowable plot size in square meters in residential subdivisions.

THE TRANSPORTATION MODULE

Significance of the transportation indicator:

In a well functioning housing market, households want dwellings in locations which provide good access to employment opportunities.

The Journey to Work measures how well housing is located relative to employment opportunities.

Key Indicator:

Indicator 11: Journey to work. 11. **minutes**

Defined as the median length in minutes of one-way commute in the urban area not including home-based workers.

THE REAL ESTATE DEVELOPMENT MODULE

Significance of the Real Estate Indicators:

As mentioned above, one measure of the success of a shelter sector is whether housing is supplied at a quantity and price adequate to meet demand pressures. Competitiveness of the market is important in meeting these goals, as is ease of entry into the construction field. In addition, both consumers and producers are concerned that infrastructure is adequately provided at a price which reflects its cost of provision.

The **Housing Production** and **Housing Investment** indicators provide measures of the ability of supply to react to changes in demand. Competitiveness of, and ease of entry into, the construction industry is reflected in the **Industrial Concentration** indicator. The **Land Development Multiplier** and **Infrastructure Expenditure per Capita** quantify the price and quantity of infrastructure provision respectively.

Key Indicators:

Indicator 3: Housing production. 3. /1000 pop.

Defined as the total number of units (in all sectors) produced last year per 1000 population.

Indicator 4: Housing investment. 4. %

Defined as the total investment in housing as a percentage of gross domestic product (GDP).

Indicator 7: The housing price index. 7. %

Defined as the annual rate of change of the housing component of the consumer price index, measured for the most recent year.

Indicator 20: The land development multiplier. 20.

Defined as the ratio between the median price of net salable serviced, subdivided land to the median price of undeveloped land in an area currently capable of being developed at the urban fringe.

Indicator 21: Infrastructure expenditure per capita. 21.

Defined as the ratio of total expenditures by all levels of government on infrastructure services (roads, sewerage, drainage, water supply, electricity, and garbage collection) during the current year and the urban population.

Indicator 24: Industrial concentration. 24. %

Defined as the percentage of new formal-sector housing units constructed by the five largest developers (either private or public) in the urban area last year.

Indicator 7a: House Price Appreciation. 7a. [ ]

Defined as the estimated average annual percentage increase in housing prices over the past five years.

THE CONSTRUCTION INDUSTRY MODULE

Introduction:

Producers of housing are concerned that there is an adequate supply of inputs to the construction process (building materials and equipment, infrastructure, management and contractor profits) at reasonable prices. Construction industry workers wish to ensure a regular stream of employment at an adequate wage, as well as opportunities for upward mobility.

The **Construction Cost** and **Skill Ratio** indicators provide measures of cost and availability of inputs. The **Skill Ratio** also measures the cost of skilled labor, which in turn is an indicator of constraints in training workers, and therefore advancement opportunities in the construction industry. **Import Share of Construction** measures the dependence of the industry on imports and scarce foreign exchange.

Key Indicators:

Indicator 22: Construction cost. 22. [ ]

Defined as the present replacement cost (labor, materials, on-site infrastructure, management and contractor profits) per square meter of a median priced housing unit.

Indicator 23: Import share of construction. 23. [ ]

Defined as the percentage of the total cost of construction of a newly built median-priced house attributable to direct (material) and indirect (equipment, transport, etc.) imports.

Indicator 25: The Skill Ratio. 25. [ ]

Defined as the ratio between the median wage of a construction worker with at least five years of experience in a skilled trade, such as carpentry or masonry, and median wage of an unskilled construction laborer.

Alternate Indicators:

Indicator 22 is a composite indicator of 22a - 22e. Each of the component parts of 22 also can be used as an indicator.

Indicator 22a: Building Materials cost. 22a. [ ]

Defined as the cost of materials for building the standardized housing unit.

Indicator 22b: Labor cost. 22b. [ ]

Defined as the cost of labor for building the standardized housing unit.

Indicator 22c: Raw land cost. 22c. [ ]

Defined as the cost of raw land for building the standardized housing unit in an area on the urban fringe currently undergoing subdivision.

Indicator 22d: On-site infrastructure cost. 22d. [ ]

Defined as the on-site cost of servicing the plot of land for building the standardized housing unit, with an individual water connection, septic tank, and electricity.

Indicator 22e: Management cost. 22e. [ ]

Defined as the cost associated with management of construction of a standardized housing unit, including overhead and profits.

Indicator 22f: Import Share of Construction. 22f. [ ]

Defined as the percentage share of inputs into the construction industry which are imported.

THE ECONOMIC STATISTICS MODULE

Significance of the socio-economic impact indicators: In addition to the 25 housing indicators, there are eight indicators which measure the impact of the housing sector on the economy and on society as a whole. Data on these indicators is available from non-housing sources, and need not be collected for this study.

These indicators differ from those in other modules in that they are intended to measure the importance rather than the performance of the housing sector. Housing investment, employment and other variables are large components of their respective national counterparts, and can be expected to have large multiplier effects.

These indicators are not housing indicators per se, but are included in the conceptual framework with the aim of demonstrating the connection between housing sector performance and socio-economic performance.

Socio-economic Indicators:

Indicator I-1. The Under-Five Mortality Rate: I-1. [ ]

Defined as the number of children per thousand population who die before reaching five years of age within the city.

Indicator I-2. The Household Savings Rate: I-2. [ ] %

Defined as the annual percentage of household income which is saved.

Indicator I-3. Manufacturing Wage Growth: I-3. [ ] %

Defined as the annual percentage growth of wages in the manufacturing sector.

Indicator I-4. Manufacturing Productivity: I-4. [ ]

Defined as the total annual manufacturing output per person employed in manufacturing during the current year.

Indicator I-5. The Rate of Inflation: I-5. [ ] %

Defined as the annual percentage increase in the consumer price index of the commonly agreed upon basket of goods in use for the city studied.

Indicator I-6. Capital Formation: I-6. [ ] %

Defined as the ratio of gross fixed capital formation to GDP during the current year.

Indicator I-7. Balance of Payments Deficit: I-7. [ ]

As defined in International Financial Statistics.

Indicator I-8. GNP: I-8. [ ]

As defined in the national income accounts.

Indicator I-9: The Government Deficit: I-9. [ ] %

Defined as the deficit as a percentage of the total annual government budget.

Indicator I-10: National financial depth: I-10. [ ]

Defined as the ratio of the "broad money supply" (M2) to GDP in the national income accounts.

THE REGULATORY AUDIT

The regulatory environment in most developing countries is complex and institution specific in the sense that it is based on historical, social and political considerations rather than on the efficient attainment of social and economic objectives. Yet it is a major determinant of performance, and a particularly important determinant of the perfomance of the housing sector.

To obtain a comprehensive profile of the regulatory environment of the housing sector, we have consrtucted a number of simple questionnaires dealing with various regulatory, institutional and policy questions. Most of these questions are in the form of yes/no questions, and deal with well-known and well-understood aspects of the regulatory environment. However, since they do deal with different aspects of the regulatory environment, we have divided them into five modules, each module corresponding to a particular set of questions. The modules are:

(1) the financial regulations module;

(2) the tenure regulations module;

(3) the local government regulations module;

(4) the building regulations module; and

(5) the land regulations module.

The answers to these questions will be used to construct a series of regulatory indices corresponsing to the modules, e.g. a **Financial Regulations Index** corresponsing to the Financial Regulations Module. In addition, an overall Index of Regulatory Stringency will be constructed from the separate indices, to provide an overall measure of the appropriateness of the regulatory environment.

The questions listed below are **provisional**, and the list is incomplete. A more complete list will be developed in conjunction with the field testing of the regulatory modules during the pilot surveys.

1. THE FINANCIAL REGULATIONS MODULE

1. Regulatory Practices:

   a. Are deposit interest rates controlled?
   yes _____, no _____.

   b. Are there controls on mortgage loan interest rates for loans originated by private sector instititutions:
   yes _____, no _____.

   c. Are there controls on mortgage loan interest rates for loans originated by public sector institutions?
   yes _____, no _____.

   d. Are housing loans treated differently than other loans by regulators?

yes _____, no _____.

e. Is an earmarked tax fund used to mobilize credit for mortgage lending: yes _____, no _____.

f. If so, what percentage comes from the following tax sources: _____ wages, _____ imports, _____ other.

2. Institutions:

a. Are commercial banks permitted to lend for housing? yes _____, no _____.

b. Are commercial banks required to lend for housing: yes _____, no _____.

c. Can banks lend for rental housing? yes _____, no _____.

d. Is there a mortgage banking or specialized mortgage lending institution: yes _____, no _____.

e. Number of shelter lending branches: _____.

f. Is the mortgage lending institution solvent? yes _____, no _____.

3. Financial Soundness:

a. The required reserve ratio: _____ percent.

b. Percentage of required reserves held as: cash _____ percent, central bank deposits _____ percent, other _____ percent.

c. Capital requirements: _____.

d. Are there audit requirements for banks? yes _____, no _____.

e. Is the auditing agency public_____, private_____.

f. Underwriting Standards:

1. Average payment/income required: _____.
2. Average maximum mortgage/income allowed: _____.
3. Is there a requirement for property appraisal on mortgage loans? yes _____, no _____.
4. Are mortgage loans secured by anything other than the property? yes _____, no _____.

g. Is mortgage insurance required? yes _____, no _____.

h. The insuring institution is public _____, private _____.

4. Lending Volumes:

a. The ratio of total housing credit _____ to asset value of

the housing stock (insert from module ?) _____ : _____.

b. The ratio of the average new housing loan _____ to the median new house price (insert from module ?) _____ : _____.

c. How much housing credit is outstanding from the mortgage lending institution: _____.

d. The percentage of housing loans to total number of loans: _____ percent.

e. The percentage of housing loans to the total portfolio: _____ percent.

5. Credit Terms:

a. The average term to maturity of a fixed rate mortgage is: _____ years.

b. The contribution of the availability of finance to affordability is: [insert Bob's method]

c. Are residential mortgage loans generally non-recourse: yes _____, no _____.

d. Is there a different rate for lending for rental housing than for other housing lending: yes _____, no _____.

e. The average number of months required from application to receipt of mortgage loans is: _____ months.

6. Depth of Housing Finance System:

a. Are variable rate mortgages available?
yes _____, no _____.

b. The variation in variable rate mortgages is usually determined by: (check one) ____ wage index, ____ lender discretion, ____ price-index, ____ interest rate index

c. What percentage of new mortgages have variable rates: _____ percent.

d. What percentage of total mortgages have variable rates: _____ percent.

e. Are other types of financial instruments or different maturities readily available for mortgage finance? yes _____, no _____.

7. Evictions/Foreclosures:

a. Are eviction or foreclosure orders enforced by government agents:

yes _____, no _____.

b. The average number of years to evict mortgage defaulters legally: _____ years

c. The percentage of mortgage loans in default that are foreclosed: _____ percent.

2. THE TENURE REGULATIONS MODULE

1. Ownership Regulations:

   a. Can private individuals own land? yes _____, no _____.

   b. Can private individuals own homes? yes _____, no _____.

   c. Can women own land or homes? yes _____, no _____.

   d. Can private individuals own rental properties? yes _____, no _____.

   e. Are there restrictions on the maximum amount of land that can be owned by individuals? yes _____, no _____.

2. Pricing Regulations:

   a. Are there statutory or administrative limitations on the sale price of private land? yes _____, no _____.

   b. Are there statutory or administrative limitations on the sale price of private housing? yes _____, no _____.

   c. Are there statutory or administrative limitations on water, electricity or garbage collection rates? yes _____, no _____.

   d. Are there restrictions on private sector involvement in building materials production, for example in access to concrete: yes _____, no _____.

   e. How stringently are ownership regulations enforced: (check one)
   ___ none ___ lax ___ moderate ___ vigorous ___ very vigorous

3. The Rent Control Regulatory System:

a. Coverage

1. The percent of total rental stock, including informal rental housing, under rent control is: _____ percent.

2. Are newly constructed rental units exempt from rent control: yes _____, no _____.

3. Are units above a certain rent level exempt from rent control: yes _____, no _____.

4. What year was rent control initially introduced: (year) _____ .

5. Was rent control initially introduced as a temporary or emergency regulation: yes _____, no _____.

6. The percentage of units under rent control which are vacant: _____ percent.

b. Rent levels

1. Are rent increases indexed and closely tied to inflation: yes _____, no _____.

2. Are upgrading, maintenance, and tax increases fully passed through to tenants: yes _____, no _____.

3. Can rents be reset to market value upon new tenancy: yes _____, no _____.

4. Median rent levels on rent controlled units as a percentage of the median free market rents is: _____ percent.

c. Tenure Security

1. Tenure security is defined as the legal right of a sitting tenant to remain in the unit. Is tenure security determined by private lease agreement: yes _____, no _____.

2. Are normal grounds for eviction, such as non-payment of rent or wilful damage, routinely and expeditiously enforced: yes _____, no _____.

3. The median length in months to evict a tenant on legal grounds is: _____ months.

4. Do landlords typically pay tenants to vacate units: yes _____, no _____.

d. Key Money

1. Key money is defined as a payment by a prospective tenant to the sitting tenant in order to secure the premises. Is key money normally paid: yes _____, no _____.

2. The amount of key money paid, as a multiple of monthly rent, on a typical flat is: _____

3. Is it illegal to pay key money: yes _____, no _____.

e. Enforcement

1. How stringently are rent control regulations enforced: ___ none; ___ lax; ___ moderate; ___ vigorous; ___ very vigorous.

3. THE LOCAL GOVERNMENT REGULATIONS MODULE

1. Local Government Organization:

a. The number of public employees in the city is: (#) _____.

b. The number of city employees in the shelter sector is: (#) _____

2. The Property Tax System

a. Total property taxes collected in the city last year were: _____.

b. Total city revenue last year was: _____.

c. On average, how often are residential housing units reassessed for property tax purposes: _____. years.

d. The official, nominal assessment ratio is: _____.

e. For land, the effective median assessed value as a percent of market value is: _____ percent.

f. For housing, the effective median assessed value as a percent of market value is: _____ percent.

4. THE BUILDING REGULATIONS MODULE

1. Tenure Controls:

   a. Titling

      1. On sale of an average formal sector dwelling unit, the percentage of public sector fees, taxes, and titling expenses to total sales price is: _____ percent.

      2. The average number of months needed to obtain clear title for a typical house sale is: _____ months.

      3. The percentage of land transfers for which title is formally transferred: _____ percent.

      4. The percent of urban land for which there is uncontested title: _____ percent.

      5. The number of land-title issuing offices in the city is: (#) _____.

   b. Tenure Regularization

      1. Is there a tenure regularization program: yes _____, no _____.

      2. The number of units regularized last year was: (#) _____.

   c. Foreclosure

      1. Is there a separate judicial or administrative system solely to handle land disputes: yes _____, no _____.

      2. The average number of months to evict mortgage defaulters legally: _____ months.

   d. Enforcement

      1. How stringently are tenure regulations enforced:
      ___ none ___ lax ___ moderate ___ vigorous ___ very vigorous

5. THE LAND REGULATIONS MODULE

1. Land development controls

   a. Subdivision Regulations

      1. The minimum residential lot size is: _____ sq. meters

      2. The maximum net salable residential land as a percentage of the total subdivision land (total land includes required schools, open space, commercial zones, etc.) is: _____

percent.

3. The percentage of the buildable urban area where residential land use is permitted is: _____ percent.

4. The percent of zoned and buildable residential land which is vacant: _____ percent.

5. The median length in months to get approvals, permits, zoning, and titling for a medium-sized low-cost subdivision at the urban fringe is: _____ months.

6. How stringently are subdivision regulations enforced:
___ none ___ lax ___ moderate ___ vigorous ___ very vigorous

b. Affordability

1. Have building and land subdivision regulations been revised to reflect affordability constraints of low-income groups: yes _____, no _____.

2. Are there special norms and standards for low-income groups in any part of the city such as newly developing areas: yes _____, no _____.

c. Land Availability

1. Are there "greenbelt" regulations to preserve agricultural land around the city: yes _____, no _____.

2. How stringently are greenbelt regulations enforced: (check one)
___ none ___ lax ___ moderate ___ vigorous ___ very vigorous

3. Is there a "land banking" program: yes _____, no _____.

4. Is the banked land reserved for low-cost housing: yes _____, no _____.

2. Development Controls

a. The average number of months required to obtain permits, zoning approvals, and titling for:

1. Small-scale, single unit: _____ months.
2. 10-20 unit residential development: _____ months.
3. 100+ unit residential subdivision: _____ months.
4. Substantial renovation of existing unit: _____ months.
5. Substantial renovation of rental unit: _____ months.

b. Taxes and permits costs as a percentage of total construction costs in an average sized formal-sector residential subdivision:

1. Capital gains taxes on land: _____ percent.
2. Tariffs on building materials

and construction equipment: _____ percent.

3. Valorization or Betterment Charges: _____ percent.
4. Title recording fees: _____ percent.
5. Official development fees: _____ percent.
6. Unofficial payments to individuals for contracts, approvals, etc.: _____ percent.
7. Other (_____): _____ percent.

Total taxes and permits as % of total cost: _____ percent.