

The Causes and Consequences of Urban Expansion
The Urban Growth Management Initiative

City Survey Protocol

City:	
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Information about the Field Researcher:			
First Name:		Family Name:	
Address:			
City Name:		Zip Code:	
Country Name:		Email Address:	
Telephone:		Fax Number:	

INTRODUCTION:

The information that is to be collected is required to understand the causes and consequences of global urban expansion. Each data item will be used to construct econometric models that can explain these causes and consequences in a rigorous manner. It is therefore imperative that the data be collected with great care and be of the highest quality.

Please use this form to collect and record the data for the survey of your city or metropolitan area. Instructions and definitions that are needed for collecting the data are provided separately in the Appendix to this Protocol. Any comments or questions you may have should be communicated separately in a form included in the Appendix. Any questions not answered must be addressed in this way, with an explanation indicating why the information could not be obtained. Other relevant comments concerning the reliability of the information or its source should also be noted.

The Survey protocol is organized as a set of visits:

- Visit 1: Census Office;
- Visit 2: Municipal Planning Offices;
- Visit 3: Real Estate Agency;
- Visit 4: An Informal Settlement;
- Visit 5: Drive to Four Ground-Truth Locations; and
- Visit 6: Financial Institutions that Provide Mortgage Loans.

On average, the six visits are expected to require a full day of work each. With the time required to prepare and arrange for interviews, it is estimated that assembling the data will require 7 full working days.

VISIT 1: CENSUS OFFICE

Please obtain the following information for the city/metropolitan area from latest census:

A. Information Obtained From Latest Census for the Metropolitan Area as a Whole	Value or %
1A(1) Total population	
1A(2) Total number of households	
1A(3) Total number of dwellings	
1A(4) Percent of total number of dwellings that are:	
1A(5) Unoccupied (%)	
1A(6) Multi-unit (%)	
1A(7) Single-family units (%)	
1A(8) Owner-occupied (%)	
1A(9) Rented (%)	
1A(10) With more than 2 persons per room (%)	
1A(11) With more than 3 persons per room (%)	
1A(12) With non-permanent roof materials (%)	
1A(13) With non-permanent wall materials (%)	
1A(14) With non-permanent floor materials (%)	
1A(15) With improved water supply (%)	
1A(16) With improved sanitation (%)	
1A(17) With electricity (%)	

Note: Please obtain copies of census tables from which the above values were calculated. Definitions can be found in the Survey Instructions.

B. Price/wage Information Obtained From Direct Inspection or Contacts in City	Value or %
1B(1) Price of standard grade gasoline, average from three local retail stations.	
1B(2) Weekly earnings before tax of male construction worker with 5 years experience	
1B(3) Weekly earnings before tax of male school teacher with 5 years experience	
1B(4) Weekly earnings before tax of female school teacher with 5 years experience	
1B(5) Weekly earnings before tax of male physician (non-specialist) with 5 years experience	

Note: Definitions can be found in the Survey Instructions.

VISIT 2: MUNICIPAL PLANNING OFFICES

Please obtain the following information from the offices of the main municipality in the metropolitan area.

Please note: In case there is more than one municipality in the metropolitan area and there is no metropolitan planning agency, we would like you to visit two municipalities—one in the central city and one on the metropolitan fringe—to obtain the information below. Please alert the research team if this is the case in your city as soon as possible.

2A. The status of metropolitan area planning and conditions:	Value
2A(1) Are municipal governments in the metropolitan area elected or appointed (Elected/Appointed)?	
2A(2) Are there built-up areas in the metropolitan area that are not under the jurisdiction of any municipality (Yes/No)?	
2A(3) How many different municipalities are there in the metropolitan area?	
2A(4) Do these municipalities set independent land use planning policies or cooperate in forming regional policy (independent/cooperate)?	
2A(5) Is there an agency empowered to prepare zoning and transportation plans for the metropolitan area as a whole (Yes/No)?	
2A(6) When was it established (Year)?	
2A(7) Is its governing board elected or appointed by a higher level of government (Elected/Appointed)?	
2A(8) Are all municipalities represented on its governing board (Yes/No)?	
2A(9) What is its annual budget (in local currency)?	
2A(10) Does it have police powers to enforce its policies and plans (Yes/No)?	
2A(11) Is there a zoning and transportation plan for the metropolitan area (Yes/No)?	
2A(12) Does it have formal and binding legal status (Yes/No)?	
2A(13) Are all central-government agencies obliged to follow the plan? (Yes/No)	
2A(14) Are all municipalities in the area obliged to follow the plan? (Yes/No)	
2A(15) In what year was the plan originally approved (Year)?	
2A(16) In what year was the plan last officially revised (Year)?	
2A(17) Does it specify the permissible land use for each land parcel (Yes/No)?	
Please obtain a map with designated scale showing details of the current plan, including areas where development is forbidden, greenbelt areas, and any urban growth boundary. If such a map is not available, then determine:	
2A(18) What is the land area covered by the current plan (Km ²)?	
2A(19) Percent of land area covered by the plan on which development is forbidden(%)	
2A(20) If there is a greenbelt, the area it encloses (km ²)	
2A(21) If there is a growth boundary, the area it encloses (km ²)	
2A(22) Height of the tallest building in the city (number of floors)	
2A(23) Is there a rail transit network in the metropolitan area (Yes/no)?	
2A(24) If so, how many stations are there in the metropolitan area?	

Note: Please obtain copies of (a) the latest metropolitan master plan, (b) map showing boundaries of all municipalities and (c) map of metropolitan rail network if available. Definitions can be found in the Survey Instructions.

B. The Status of Zoning and Land Subdivision Regulations:	Value
2B(1) Typical time it takes to obtain all permits to convert land from rural to urban use (months)	
2B(2) Typical time it takes to obtain all permits for a medium-size residential subdivision on the urban fringe (months)	
2B(3) The tax rate as percent of real market value on vacant land located at the urban fringe at a location where urban development is NOT approved (%)	
2B(4) The tax rate as percent of real market value on vacant land located at the urban fringe at a location where urban development IS approved (%)	
2B(5) Maximum slope on which building is allowed (%)	
2B(6) Maximum elevation on which building is allowed (meters)	
2B(7) Is drilling for water for use in new residential building allowed (yes/no)?	
2B(8) If drilling is allowed, estimated percentage of new land development where water is obtained from drilled wells (%)?	
2B(9) Maximum Floor Area Ratio (FAR) on the urban fringe	
2B(10) Maximum building height (specify meters or number of stories) on urban fringe	
2B(11) Maximum density (residential units per land area) on urban fringe	
2B(12) Minimum lot size in new legal subdivision on the urban fringe	
2B(13) Minimum road width in new legal subdivision on the urban fringe	
2B(14) Maximum net land area allowed as plots in new legal subdivision on fringe (percent left for sale after set asides for roads, open space, public facilities etc.)?	
2B(15) Estimated percent of land parcels with proper land registration (%)	
2B(16) Are residence permits necessary to live in the metropolitan area (Yes/No)?	
2B(17) If so, estimated percent of urban population without residence permits (%)	

Note: Please obtain a copy of the latest versions of (a) zoning regulations; and (b) land subdivision regulations. Definitions can be found in the Survey Instructions.

C. The Status of Zoning and Land Subdivision Enforcement:	Value
2C(1) Is there an approved zoning plan showing allowable land uses for every land parcel in the municipal area? (Yes/No)	
2C(2) Estimated percent of annual requests for permits to change zoning from non-urban to urban use that are allowed (%)	
2C(3) Estimated percent of annual requests for permits to change zoning from non-urban to urban use that are denied (%)	
2C(4) Number of times last year in which a stop order was issued for construction or land preparation in areas not zoned for urban use	
2C(5) Number of times last year in which construction or land preparation works were demolished because they took place in areas not zoned for urban use	
2C(6) Estimated share of housing stock in the municipal area without formal land subdivision and/or without building permits	
2C(7) Estimated share of squatter housing in municipal area housing stock	
2C(8) Number of full-time persons engaged in enforcement of zoning/subdivision	
2C(9) Average salary of inspector engaged in zoning/subdivision enforcement	

VISIT 3: REAL ESTATE AGENCY

Please obtain the following information from one or more real estate agencies in the metropolitan area. Note that all prices and incomes should be expressed in terms of the local currency.

A. General Housing and Land Market Information:	From	To
3A(1) Middle range of prices of all formal dwelling units (old and new)		
3A(2) Middle range of prices of new formal dwelling units		
3A(3) Middle range of household incomes of buyers of new formal dwelling units (per month before taxes)		
3A(4) Middle range of rents of all formal dwelling units (old and new)		
3A(5) Middle range of rents of new formal dwelling units		
3A(6) Middle range of household incomes of renters of new formal dwelling units (month before taxes)		
3A(6a) Price and year of highest recorded land transaction in the city		
3A(6b) Number of stories of tallest building in the metropolitan area		
3A(6c) Middle range of land prices on the urban fringe in current agricultural production		
3A(7) Middle range of raw land prices on the urban fringe <i>without permits</i> for land subdivision and development		
3A(8) Middle range of raw land prices on the urban fringe <i>with permits</i> for land subdivision and development		
3A(9) Middle range of plot prices in a typical new land subdivision on the urban fringe (per m ²)		
3A(10) Typical time it takes to obtain all permits to convert rural to urban land (months)		
3A(11) Typical time it takes to obtain all permits for a medium-size residential subdivision on the urban fringe (months)		
3A(12) Estimated percent of new land subdivisions that were built last year without proper zoning and land subdivision permits (%)		
3A(13) On a scale from 1 (lowest) to 5 (highest) to what extent is enforcement of zoning and land subdivision regulations subject to corrupt practices?		
3A(14) Do most high-income families prefer central city locations as against suburban locations (Yes/No)?		
3A(15) Are there dilapidated or abandoned districts in the city center (Yes/No)?		
3A(16) Is there a relatively even mixture of housing for all income groups in the city center (Yes/No)?		
3A(17) Are the majority of people living in the city center considered poor or low-income (Yes/No)?		
3A(18) Are there neighborhoods in the city center that are considered dangerous due to criminal activity (Yes/No)?		
3A(19) Is there a concentration of particular racial or ethnic groups in the city center (Yes/No)?		
3A(20) Has there been a movement of middle- and high-income people back into the city center (Yes/No)?		

Note: Definitions can be found in the Survey Instructions.

Consider the current market value and characteristics of three typical dwelling units available in this market. One is a unit that would be typical for this market, valued near the median for dwellings in the city. Next consider a newly constructed unit, valued near the median for new dwellings in the city. Finally, consider the lowest cost newly built dwelling. For each of these three types (associated with the three columns in the table) obtain the following information:

B. Characteristics of Three Typical Dwelling Units on the Market:	Median-price Dwelling Unit	Median-price New Unit	Lowest-price New Unit
3B(1) Estimated value of dwelling unit			
3B(2) Estimated monthly household income of buyers			
3B(3) Estimated monthly rental, if it were rented			
3B(4) If house, land area of plot (m ²)			
3B(5) If house, land price as percent of total price (%)			
3B(6) If apartment, total number of stories in building			
3B(7) If apartment, is there an elevator? (Yes/no)			
3B(8) Floor area of unit (m ²)			
3B(9) Number of rooms in unit			
3B(10) Wall materials			
3B(11) Roof materials			
3B(12) Floor materials			
3B(13) Toilet inside unit? (Yes/no)			
3B(14) Piped sewerage connection? (Yes/no)			
3B(15) Electrical meter? (Yes/no)			
3B(16) Central heating? (Yes/no)			
3B(17) Air-conditioning? (Yes, no)			
3B(18) Paved road in front of unit? (Yes/no)			
3B(19) Distance to city center (kms.)			
3B(20) Walking time to nearest public bus stop (min.)			
3B(21) Sale includes full legal title? (Yes/no)			
3B(22) Sale includes transfer of some ownership document? (Yes/no)			
3B(23) Mortgage loan available to buyers? (Yes/no)			
3B(24) Unit conforms to building code? (Yes/no)			
3B(25) Subdivision conforms to regulations (Yes/no)			
3B(26) Age of unit, if not new			

Note: Definitions can be found in the Survey Instructions.

VISIT 4: AN INFORMAL SETTLEMENT (AN ILLEGAL SUBDIVISION OR AN INVASION)

Please obtain the following information on one recently-occupied illegal land subdivision on the fringe of the metropolitan area that does not conform to zoning and/or land subdivision regulations or on one recent land invasion, whichever one is more common:

A. General Information on Informal Settlements:		Value or %
4A(1)	Estimated percent of dwellings in informal settlements (illegal land subdivisions plus squatter settlements) in the total metropolitan housing stock (%)	
4A(2)	Estimated percent of dwellings in squatter settlements in the total metropolitan housing stock (%)	
4A(3)	Are there any recently-occupied illegal land subdivisions on the urban fringe (Yes/no)?	
4A(4)	Are there any recently-occupied land invasions on the urban fringe (Yes/no)?	
4A(5)	If so, are recently-invaded lands mostly public or private?	
4A(6)	Are full land titles eventually provided to buyers of plots in illegal land subdivisions?	
4A(7)	If so, how many years after plots are sold and occupied?	

Note: Definitions can be found in the Survey Instructions.

B. Information on a Recently-Occupied Informal Settlement Visited		Value or %
4B(1)	Date settled	
4B(2)	Number of land plots in the settlement	
4B(3)	Distance from the city center	
4B(4)	Walking distance to nearest bus stop	
4B(5)	Distance from edge of settlement to a paved road (m)	
4B(6)	Typical plot size (m ²)	
4B(7)	Price for a typical plot (in local currency)	
4B(8)	Estimated monthly household income of residents	
4B(9)	Typical road width in settlement	
4B(10)	Type of road surface	
4B(11)	How is water provided to plots?	
4B(12)	How is sanitation handled?	
4B(13)	Is there electricity (Yes/no)?	
4B(14)	Is financing available (yes/no)?	
4B(15)	If so, percent of plot price required as down payment	
4B(16)	How many months to pay the rest?	
4B(17)	Monthly payment (in local currency)	

Note: Definitions can be found in the Survey Instructions.

C. Characteristics of Three Dwelling Units in the Informal Settlement Visited:	Unit 1	Unit 2	Unit 3
4C(1) Number of persons living in the house			
4C(2) Estimated monthly income of household			
4C(3) Land area of plot (m ²)			
4C(4) Price paid for land (in local currency), if any			
4C(5) Year land was bought or obtained			
4C(6) Floor area of house (m ²)			
4C(7) Number of rooms in house			
4C(8) Estimated replacement cost of unit			
4C(9) Monthly rental, if unit is rented out			
4C(10) Wall materials			
4C(11) Roof materials			
4C(12) Floor materials			
4C(13) Piped water on plot (Yes/no)?			
4C(14) Toilet inside unit (Yes/no)?			
4C(15) Outhouse with pit latrine (Yes/no)?			
4C(16) Piped sewerage connection (Yes/no)?			
4C(17) Electrical connection (Yes/no)?			
4C(18) Paved road in front of unit? (Yes/no)			
4C(19) Distance to city center (kms.)			
4C(20) Walking time to nearest public bus stop (min.)			
4C(21) Sale of land included full legal title? (Yes/no)			
4C(22) If so, has title been obtained by owner?			
4C(23) If not, in how many years it is expected?			
4C(24) Sale includes transfer of some ownership document? (Yes/no)			
4C(25) If so, has document been obtained?			
4C(26) If not, in how many years it is expected?			
4C(27) Was land purchase price paid upfront (yes/no)?			
4C(28) If not, percent of plot price required as down payment			
4C(29) How many months to pay the rest?			
4C(30) Monthly payment (in local currency)			

Note: Definitions can be found in the Survey Instructions.

VISIT 5: DRIVE FROM CITY CENTER TO FOUR SELECTED GROUND-TRUTH LOCATIONS

Please obtain the services of a car and a driver during a weekend day outside the time of rush hour traffic. Locate the four ground truth locations you were given on a city map. Then follow the procedure outlined below:

- a. Start the journey at the place known as the city center. Note the time of departure and the reading on the odometer (please indicate whether miles or kilometers).
- b. Drive as fast as permissible on the shortest route from city center to first ground-truth location. Note the time of arrival and the reading on the odometer (please indicate whether miles or kilometers).
- c. At first ground-truth location, take **eight** photos with a digital camera—so as to completely cover each of the eight compass directions **starting with the North and proceeding clockwise** (North, Northeast, East, Southeast, South, Southwest, West, Northwest) and record the exact location using GPS. Note the time of departure.
- d. Drive as fast as permissible to second ground truth location. Note the time of arrival and the reading on the odometer (please indicate whether miles or kilometers). Take eight photos. Note the time of departure.
- e. Repeat procedure in third and four ground-truth locations.

While on route, record the average number of stories of buildings at the starting point, along each of the route segments, and at each of the ground truth locations. Please do not stop along the way, as this will distort your recordings of time traveled. If you need to stop for a break, please take the break at or near one of the ground-truth locations before continuing on.

Please use the following table to record your time, distance and building height observations:

Locations		Time/Location	Odometer Reading	Average No. of Stories
5(1)	Location of City Center	Lat:	Long:	–
5(2)	Start: City center at time of departure.	:		
5(3)	Along the route to first ground-truth location	–	–	
5(4)	Arrival at first location	:		
5(5)	Digital photos in all compass directions	Lat:	Long:	–
5(6)	Departure from first location	:		–
5(7)	Along the route to second location	–	–	
5(8)	Arrival at second location	:		
5(9)	Digital photos in all compass directions	Lat:	Long:	–
5(10)	Departure from second location	:		–
5(11)	Along the route to third location	–	–	
5(12)	Arrival at third location	:		
5(13)	Digital photos in all compass directions	Lat:	Long:	–
5(14)	Departure from third location	:		–
5(15)	Along the route to fourth location	–	–	
5(16)	End point: Arrival at fourth location	:		
5(17)	Digital photos in all compass directions	Lat:	Long:	–

Note: Definitions can be found in the Survey Instructions.

VISIT 6: FINANCIAL INSTITUTIONS THAT PROVIDE MORTGAGE LOANS

Please identify two types of financial institutions in the metropolitan area that provide mortgage finance, and select one institution of each type — preferably the largest ones. Please arrange for an interview with a mortgage credit manager in each to obtain the following data:

	Finance Institution #1	Finance Institution #2	
Full Name of Bank/Finance Institution			
Bank/Institution Mailing Address			
Name of Person Interviewed			
Title of Person Interviewed			
Person's Email			
Person's Telephone			
Person's Fax			
A. Information on Market Share:		First Lender	Second Lender
6A(1)	What is the share of the finance institution itself in the total mortgage market in the country? (in percentage terms)		
6A(2)	What is the estimated share of this <u>type</u> of financial institution in the total mortgage market in the country? (in percentage terms)		
B. Information on Requirements for Obtaining a mortgage Loan:		First Lender	Second Lender
6B(1)	What is the minimum monthly household income required to qualify for any housing finance? (in local currency)		
6B(2)	What is the maximum ratio of monthly (or annual) loan payments (interest and principal) to monthly (or annual) income that the bank allows? (%)		
6B(3)	Are housing finance loans given to self-employed individuals? (Yes/No)		
6B(4)	Is a credit check by an independent bureau normally conducted? (Yes/No)		
6B(5)	Is a background check required? (Yes/No)		
6B(6)	Are personal guarantees required? (Yes/No)		
6B(7)	Is there a requirement to obtain life insurance? (Yes/No)		
6B(8)	Does the applicant need to have saved regularly in a specific way before being able to obtain a housing loan, such as participate in a government savings scheme? (Yes/No)		
6B(9)	What is the maximum ratio of loan to (appraised/market) house value? (%)		
6B(10)	Does the house have to be new to obtain financing? (Yes/No)		
6B(11)	Are loans given only on houses with full legal title? (Yes/No)		
6B(12)	Is there a requirement for an official appraisal of the value of the house? (Yes/No)		
6B(13)	Does the bank require the applicant to obtain house insurance for fire and casualty? (Yes/No)		

Note: Definitions can be found in the Survey Instructions. Please obtain a mortgage application form from the Bank, if available.

C. Terms and Conditions of Mortgage Loans:		First Lender	Second Lender
6C(1)	What is the minimum loan amount, if any? (in local currency)		
6C(2)	What is the maximum loan amount, if any? (in local currency)		
6C(3)	What is the minimum down payment as a share of the loan amount? (%)		
6C(4)	What is the maximum length of a mortgage loan? (number of years)		
6C(5)	For a mortgage in <u>local</u> currency with a <u>fixed</u> interest rate, what is the current interest rate per annum? (%)		
6C(6)	For a mortgage in <u>other</u> currency (specify) with a <u>fixed</u> interest rate, what is the current (effective) interest rate per annum? (%) (Other currency: _____)		
6C(7)	For mortgage in <u>local</u> currency with an interest rate <u>indexed to price inflation</u> , what is the current interest rate per annum? (%)		
6C(8)	Can loans be obtained with Adjustable Interest Rates? (Yes/No)		
6C(9)	If so, what is the current variable rate on loans in <u>local</u> currency? (%)		
6C(10)	Are there penalties for prepayment? (Yes/No)		
6C(11)	Is there a requirement to keep a compensatory deposit in the same bank? (Yes/No)		

Note: Definitions can be found in the Survey Instructions.

D. Interest Terms on General Financial Products		First Lender	Second Lender
6D(1)	What is the interest rate charged on credit cards (in local currency)? (%)		
6D(2)	What is the deposit interest rate on a one-year savings account (in local currency)? (%)		
6D(3)	What is the prime interest rate for commercial borrowers (in local currency)? (%)		

Note: for definitions and instructions, see Appendix.

E. Conditions on General Financial Products		First Lender	Second Lender
6E(1)	What is the average time between completion of mortgage application with the bank and the final settlement/taking possession of the house by applicant? (number of weeks)		
6E(2)	What was the percentage of complete mortgage applications rejected by the bank out of total amount of mortgage applications last year? (%)		
6E(3)	Of the total credit provided by the bank to its clients, what is the share of housing finance (mortgage loans)? (%)		
6E(4)	What was the average amount of a mortgage loan on the bank's current balance sheet during the last year? (in local currency)		
6E(5)	After how many weeks of non-payment does the bank start legal actions against the borrower?		
6E(6)	How long does it typically take for the bank to foreclose a mortgage and take possession of the house? (weeks)		

Note: Definitions can be found in the Survey Instructions.

F. Document Procurement
Please obtain a mortgage application form from the Bank and send it back with this questionnaire.

THANK YOU!