

Urban Transportation, Land Use, and the Environment in Latin America: A Case Study Approach

Lecture 5

Introducing the Case Study Cities and the Case Study Approach

The Two Cities

	Mexico City	Santiago
Population	18 million (18% of national)	5.5 million (40% of national)
Urbanized area	1,500 km ²	600 km ²
Density (pop./ km²)	12,000 (center) 2,700 (periphery)	11,000 (center) ~3,000 (periphery)
GDP/Capita (US\$)	\$7,750 (2000)	\$5,200 (1998)
Total Veh. Fleet	3.2 million (1999)	870,000 (1998)
Private Veh./1000	166 (1996)	130 (1998)
VKT (KMs/Day)	153 million	55 million
% Days Ozone Exceeded Std.	~80 (1999)	40 (1999)
Peak PM₁₀ conc.	202 µ/m ³ (1999)	335 µ/m ³ (1999)
NO_x (tonnes/yr)	206,000 (1998) (80% vehicles)	55,000 (2000) (84% vehicles)
VOC (tonnes/yr)	475,000 (1998) (40% vehicles)	81,000 (2000) (20% vehicles)
Local Jurisdictions	54	~40
Pop. Growth (90s)	1.7%	1.8%
Household Size	4.2	4.2

The Case Study Approach

- The “Consultant Team”
 - Working with “Directors” (Joe, Chris)
 - 1 “progress assessment” meeting per week
 - Answering to “Stakeholders” (rest of class)
 - 4.5 Weeks
 - Approximately 200 person-hours

Expected Output

A Strategic Transportation Infrastructure and Land Use Plan for the Metro Region

- Covering a 20-Year Time Horizon
- Understanding the Planning Context
 - Applying the CLIOS construct
- Showing Range Estimates of Key Influencing Factors
 - Economy, Demographics, Traveler Demand (trips, distances, modes, etc.), Freight Transport Demand, Land Development Demand, Technology, ...

Expected Output (cont'd)

- Identifying Goals, Objectives, Indicators
 - For Sustainability
- Identifying the “Regional Architecture” and influencing factors
 - Public & Private Institutions
 - Role of Relevant national policies
 - Dynamic Issues
- Outlining major options to be considered to fulfill goals/objectives
 - Infrastructure & Land Development
 - Policy & Technology deployment

Expected Output (cont'd)

- Presenting the Framework for evaluating and justifying the selected options
 - Fulfillment of goals and objectives
 - Recognition of trade-offs
- Presenting the Proposed Financing Plan
 - Including fees, taxes, charges, transfers
- Presenting the Proposed Implementation Plan
 - Institutional responsibilities
 - Public Participation
- Identifying Main Sources of Uncertainty
 - Highlighting data and methodological needs

Expected Products

- Interim Presentation (week 3)
 - For stakeholder feedback
- Final Presentation (week 4)
 - Incorporating stakeholder concerns
- Final Report (due in class, week 5)
 - Approximately 30 pages
- Expectations
 - **Add value** to the already existing information (i.e., readings); indicate additional resource consultations.
 - Scenario Planning is encouraged, but not required.