Sustainable Urban Planning

Module 3 Session 1

Dr. Yizhao Yang
Associate Professor,
School of Planning, Public Policy and Management, University of Oregon
Sustainable development pathways

**Module 3 – Monday**
- Integrate sustainability and quality-of-life targets into urban planning to future-proof public and private investment in cities.
- Co-produce with citizens urban planning solutions that align technological investment with adequate local government capacities.
- Identify specific urban regeneration and growth strategies that optimize urban-rural and city-region collaborations that spur sustainability and investment.

**Module 4 – Tuesday**
- Scale up the use of nature-based solutions and resilient infrastructure in integrated urban and climate change planning.
- Encourage technology firms to become more civic-minded and create sustainable smart city solutions with social enterprises.
- Adopt cybersecurity safeguards in both digital and physical urban infrastructure and development planning.

**Module 5 – Wednesday**
- Understand the informal economy and support urban poor groups to be change agents for implementing city resilience actions.
- Create and strengthen partnerships to bring more attention and resources to long-term urban resilience strategies that break siloes between national, state and local actors.
- Develop smart mobility investment plans that prioritize sustainable urban mobility options for citizens.
- Expand viable smart city funding mechanisms by enabling cross-sector sustainable partnerships and business matching platforms.
- Introduce congestion-charging and environmental user fees to improve urban air quality.
- Scale up public-private partnerships and community schemes to transition to localized housing finance solutions.
- Adopt land-linked financing mechanisms that leverage urban growth to build people-centred urban infrastructure.
Module 3 – Session 1

Key Takeaways:

- Gain working knowledge of the general principles and process of sustainable urban planning as a transformative force.
- Learn about effective local strategies and policy tools for addressing challenges in urbanization via case studies.
- Practice transferring and applying learned experiences, insights, and lessons to local planning.

Session Outline:

- Exercise Part 1 – Problems and Urban Planning
- Exercise Part 2 – Visions and Strategies
- Case Study
- Exercise Part 3 – Developing an Integrated Approach
- Summary and Discussion
### Exercise Part 1

**Description of Exercise:**

- Identify problems associated with the four areas in the boxes.
- Discuss how these problems are connected with un-planned or poorly planned urbanization.
- Describe your idea of addressing these problems via better urban planning.

<table>
<thead>
<tr>
<th>Nature Resource/ Environment Degradation</th>
<th>Livability</th>
<th>Rising Inequality</th>
<th>Climate Change/ Disaster Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø Loss of resource land</td>
<td>Ø Housing</td>
<td>Ø Disparity in access to economic opportunities.</td>
<td>Ø Vulnerability to extreme natural conditions</td>
</tr>
<tr>
<td>Ø Loss of ecosystem services (biodiversity,…)</td>
<td>Ø Infrastructure and Utilities</td>
<td>Ø Disparity in standard of living (housing, services, amenities, etc).</td>
<td>Ø Vulnerability to unanticipated man-made incidents</td>
</tr>
<tr>
<td>Ø Waste and environment pollution</td>
<td>Ø Services</td>
<td>Ø Unfair distribution of benefits and costs.</td>
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<tr>
<td></td>
<td>Ø Transportation</td>
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</tbody>
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### Exercise Questions:

1. Identify problems associated with the four areas in the boxes.
2. Discuss how these problems are connected with un-planned or poorly planned urbanization.
3. Describe your idea of addressing these problems via better urban planning.
## Group Exercise

**Please Form Groups**

<table>
<thead>
<tr>
<th>Group 1: City A</th>
<th>Group 2: City B</th>
<th>Group 3: City C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maria Gina M. Lizares (Sipalay)</td>
<td>Botika Maitinnara (Betio)</td>
<td>Rafi Hayat (Kandahar)</td>
</tr>
<tr>
<td>Amrullah Kamal (Tawau)</td>
<td>Khadijah Ahmadi (Nili)</td>
<td>Noraini Roslan (Subang Jaya)</td>
</tr>
<tr>
<td>Sima Kumari Chhetri (Patalibazar)</td>
<td>Chintan Tamang (Dhankuta)</td>
<td>Menchie De Guzman (Bauang)</td>
</tr>
<tr>
<td>Hemayu Haque (Khadak)</td>
<td>Wilson Mamae (Honiara)</td>
<td>Maung Maung Soe (Yangon)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ahmad Zaki Sarfaraz (Kabul)</td>
</tr>
</tbody>
</table>
Traditional Urban Planning

- Rigid and fixed for long periods of time;
- Primarily focused on economic growth;
- Lack a vision for co-benefiting human society and natural systems.

- Often developed top-down by political leaders and experts in a linear process;
- Lack of horizontal and vertical coordination - each city department and agency has a separate plan/chapter;
- Based on limited, aggregate socioeconomic data collected every few years in surveys;
- Designed based on historical trends in population, climate, etc.;
- Divorced from the financing required for its implementation.

- Outcome: too narrow or too grand in scope, ineffective, imbalanced, exclusionary
Sustainable Urban Planning

- Improves the humanized and natural environments;
- Focuses on the future;
- Balances socio-economic-environmental outcomes;
- Designs artfully and redesigns thoughtfully;
- Links knowledge and action: connectedness;
- Engages in a participatory style of decision-making;
- Works for diversity and variety of outcome.

- Sustainable Land Management
- Promoting Ecosystem Restoration
- Sustainable Infrastructure Development
- Improvement of Economic Opportunities
Sustainable Urban Planning is Vision-Driven

Livable and Healthy City: compact, walkable, and transit-oriented development creates sustainable, healthy, and economically vibrant cities that deliver a high quality of life to residents.

Sustainable City: Cities that design and manage their form of governance, economies, built environment, transportation systems, energy and water use, food production, and waste in a manner that imposes the smallest possible footprint upon the environment.

Eco-City: a human settlement modeled on the self-sustaining resilient structure and function of natural ecosystems. The eco-city provides healthy abundance to its inhabitants without consuming more (renewable) resources than it produces, without producing more waste than it can assimilate, and without being toxic to itself or neighboring ecosystems.
Surabaya’s vision is to become a ‘smart, humane, progressive and environmentally friendly city’

Ulaanbaatar Vision 2020
• Vision 1: The City to be a well-developed capital city of international level; to have a vibrant economy; to be a world-class business center having a competitive position in the areas of education, information, science and technology.
• Vision 2: The City to have an appropriate policy for land management and urban development, including developing the “Ger” Area with appropriate infrastructure, and for improving housing conditions of all citizens.
• Vision 3: The City to be healthy, to have a safe environment, a well-knit social life and a progressive legal framework.
• Vision 4: The City to have a responsive and efficient public administration having a participatory approach involving the community and the private business sector in civil services. (…)
Delivery of City Vision - SUP Framework and Tools

**FRAMEWORK DOMAINS**
- Land Use
- Transportation
- Housing development
- Nature
- Economic development

**PLANNING TOOLS**
- Land Use Planning
- Zoning
- Public Infrastructure
- Public Spaces
- Standards (housing, environmental, etc.)
- Financial incentives
- Regulatory Incentives

**OUTCOMES**

**Livable and Healthy City**: compact, walkable, and transit-oriented development creates sustainable, healthy, and economically vibrant cities that deliver a high quality of life to residents.

**Sustainable City**: Cities that design and manage their governance, economies, built environment, transportation systems, energy and water use, food production, and waste to minimize their environmental footprint.

**Eco-City**: modeled natural ecosystems, it functions without (i) consuming more (renewable) resources than it produces, (ii) producing more waste than it can assimilate, and (iii) being toxic to itself or neighboring ecosystems.
Sustainable Urban Planning & Implementation

Phases of a city in Emerging and Sustainable Cities

1. PREPARATION
   - Initiate data collection
   - Form work teams
   - Identify stakeholders
   - Hire technical experts
   - List of stakeholders and initial view of strengths and problem areas

2. ANALYSIS DIAGNOSTIC
   - First mission
   - City overview
   - Complete indicators
   - Traffic light exercise
   - Baseline studies
   - Set of indicators with traffic light analysis, comparisons with other cities and baseline studies

3. PRIORITIZATION
   - Applying filters: Public opinion, Economic cost, Climate change Specialists, Critical areas for the city’s sustainability
   - Formulating Action Plans for identified strategies
   - Initial study
   - Create detailed Action Plan
   - Validate Action Plan
   - List of prioritized areas and sectors
   - High level Action Plan

4. PRE-INVESTMENT
   - Financing studies in prioritized sectors: Feasibility, Economic, Engineering, Environmental
   - Prepare vertical cooperation agreement
   - Set of actions with basic descriptions

5. MONITORING
   - Design and implementation of a monitoring system
   - Indicators for prioritized areas
   - Citizen perception
   - Topics of interest
   - Monitoring System

PRE-INVESTMENT + MONITORING
- Action Plan Execution
- Projects ready for bidding and financing
- New public services and infrastructures

CORE OF THE METHODOLOGY
- Development of the Action Plan - 1 year
- Action Plan Execution - 3 years
Exercise Part 2

Description of Exercise:

- The vision of your city

- What dimensions of urban development are to be considered? What tools and actions? Check all that apply in the handout.

  - Land Use
  - Transportation
  - Housing Development
  - Nature

Livable & Healthy City

Eco-City

Sustainable City

The Vision of Your City
Curitiba, Brazil

Integrated planning domains
- High-density and car-free zones at city center.
- High-density housing, affordable housing, commercial and service along major corridors.

Prioritize Public Transportation.
- Bus Rapid Transit (BRT),
- Road network design,
- Bus station design and location,
- Integrated and Affordable bus System.

Work with Nature
- Flood mitigation based on natural drainage.
- Innovative and context-appropriate solutions for maintenance and water management.
- Financial strategies and incentives.

Integrated Housing development
- High-density housing integrated with public transportation
- Public housing development integrated with infras. investment
- Work-live housing units.

Integrated Economic Development
- Economic opportunities from waste programs
- Integrated with transportation investment and planning
- Housing with economic opportunities

The Ecological Capital of Brazil Sustainable City
Curitiba – strategies and actions

COHAB, Curitiba’s public housing program, providing 50,000 homes for the urban poor.

Seventy five percent of commuter trips are via public transit.

Residents spend less than 10% of income on transportation.
Curitiba is referred to as the ecological capital of Brazil, with a network of 28 parks and wooded areas.

In 1970, there was less than 1 square meter of green space per person; now there are 52 square meters for each person.
Curitiba – strategies and actions

Seventy percent of the city’s waste is recycled by its residents. Once a week, a truck collects paper, cardboard, metal, plastic and glass that has been sorted in the city’s homes.

The city’s paper recycling alone saves the equivalent of 1,200 trees a day.
Summary and Further Discussion

- Visionary and progressive city administration – visions, goals, plans, regulations, participatory processes, financial tools, etc.

- Integration, Integration, Integration – sectors, spatial scales, dimensions and mechanism

- Context-sensitive and -appropriate solutions – local, low-tech, low-cost.

- Education and encouragement – shaping and maintaining good behavior; social programming.

- Planning intelligence and capacity – information management, in-house technical capacity for sustainable planning
## Exercise Part 3

### Description of Exercise:

- **✓ How would you prioritize your city’s goals and objectives? Rank the goals.**

- **✓ What are the approaches you think your city will take?**

  Plan integration
  Regulation, Programs, Processes
  Capacity building

### Goals:

- **Livable & Healthy City**
  (Goals here)

- **Managing Natural Resources and Environment Protection**
  (Goals here)

- **Addressing Inequality**
  (Goals here)

- **Resilience and Climate Change**
  (Goals here)