SESSION Two

SUSTAINABLE NEW TOWN DEVELOPMENT

FACILITATED BY: SEONGHO KIM

UN-HABITAT
FOR A BETTER URBAN FUTURE

Government of Republic of Korea
Embassy of Republic of Korea in Tehran
Korean Contractors Association in Iran

Ministry of Roads & Urban Development
Islamic Republic of Iran
An urban era: A world transiting from rural to urban

In Iran
19.3 million in 1980 (49.7 %) -> 42.2 million in 2000 (64 %) -> 58.3 million in 2015 (73.4%), and expected to reach 72.5 million in 2030 (79.4 %) - World Urbanization Prospects (2014)

Average annual population growth - Urban area: 2.14% / Rural area: -0.63%
Challenges of rapid urbanization

- **High energy consumption**
- **Very high mobility demand**
- **The increasing urban living costs in cities, transport cost, housing cost etc.**
- **Social inequalities and youth unemployment**
- **Unhappiness about the city**
THE 20TH CENTURY URBAN MODEL

- Loss of street life as a social interaction. Diminished cultural identity and urban values.

- Homogeneity of the model. (similarities of forms everywhere)

- The mall as the artificial street. The mall as the social gathering “locus” because there is no other public space available. The citizen as a consumer.

- The gated community. From safety to surveillance… the last prove of social failure.
USA
China
Mexico
Bolivia
THE 21\textsuperscript{TH} CENTURY URBAN MODEL

- **High Quality of Public Space**
  Enough space allocated to the street
- **Proper and well designed density**
  Enough to trigger economies of scale
- **Mixed Urban Uses**
  Avoid zoning, highways dividing neighborhoods
- **Efficient Mobility**
  Emphasis on walking distances
- **Mixed social structure**
  Social Integration, acceptance of migrants, social diversity
- **Sustainable Energy**
  Reduction of green house gases emissions
- **Practical and enforceable norms and rules**
  Participatory, democratic, respectful
Roles of Urban Policies and Planning

Business as Usual vs Sustainable Urban Development

Urban Sprawl -> Compactness

Segregation -> Integration

Congestion -> Connectivity
New Towns in Iran

• **19 New Towns for 3,960 thousand population designed and authorized**
  - Attracted about 800 thousand inhabitants (1.4% of Urban Population)

(NTDC 2015)

• **Key aims for New Town Development in Iran**
  - Redistribution of the spill-over population of large cities
  - Decentralization
  - Reducing the population density
  - Preventing the rampant increase of land and housing price, the formation of squatter settlements, and sprawl across the metropolitan areas

(Zamani and Arefi 2013; NTDC 2006; Ziari 2006)
New Towns as Model Cities

- **Hundreds of New Towns have been created around the world since 1945**
  - In the industrialized countries, some postwar New Towns have proven to be rather disappointing because of their over-ambitious initial objectives

- **New Towns as Pioneer Cities and Model Cities**
  - A New Town as one element in a coordinated scheme of comprehensive national and regional spatial planning, not as an isolated exercise in physical planning
  - A New Town must serve as an instrument of National Urban Policy for urban and regional development and provide an opportunity to achieve economic development and social progress required in rapidly urbanizing countries
A NUP is a **coherent set of decisions** derived through a **deliberate government-led process** of coordinating and rallying various actors for a common vision and goal that will promote more **transformative, productive, inclusive and resilient urban development for the long term.** (Source: The Evolution of NUP)

A NUP is **both a process and a product** that harnesses the dynamism of cities and urbanization. (Source: NUP A Guiding Framework)
Why a NUP?

1. **A framework** that provides an overarching coordination to address urban challenges, maximize the benefits of urbanization, while mitigating potential adverse externalities.

2. **A lever** to amalgamate the dispersed energy and potential of urban centers within a national system of cities and towns.

3. **A tool** to coordinate the work of different sectors and tiers of government, consult other urban actors, establish the incentives for more sustainable practices, and allocate resources.

4. **A political process** initiating commitment, building internal and external support, creating alliances at national and local levels, harnessing collective energy and effort.

5. **A product**: legal framework, institutional structures (city gov’t), decision-systems for coordination, long-term finance for infrastructure, land development instruments.
Publications Available on UN-Habitat Website
Capture the advantages of compact patterns
- Mixed-uses
- Avoiding mismatch between jobs, commercial and residential areas

Work towards the right density
- Each city has its own density
- High density (but not extreme) has advantages over lower density

Define and enhance public space
- Secure sufficient public space in advance
- Reap the benefits of well-designed streets
CAPTURE THE ADVANTAGES OF MIXED-USE, COMPACT PATTERNS

Spatial structures addressing urban growth

Intensification
Densify existing build-up areas

Extension
Extend the city at the fringes of the build-up areas

Multiplication
Duplicate nodes by building satellite towns
GROWTH OPTION: Intensification

1. Set a growth boundary
2. Allow growth within boundary only
3. Designate reserve areas
GROWTH OPTION: Intensification

• Suitable for slow population growth
• Requires strong planning and enforcement capacity to limit growth within boundary
• Maximizes investment in infrastructure
• Land value increase due to limited supply which needs sophisticated credit system
• Example: Portland, USA
GROWTH OPTION: Extension

1. Calculate land needs for 20-30 years
2. Layout a grid of streets
3. Develop according to demand
GROWTH OPTION: Extension

• Indicated for rapid population growth (2% +) for medium-sized cities
• Needs political continuity to implement a long-term plan
• Needs understanding of market to identify development stages
• Link with existing infrastructure
• Example: Barcelona, Spain – Plan of 1859
GROWTH OPTION: Multiplication
GROWTH OPTION: Multiplication

- Indicated for rapid population growth (2% +) for large cities
- Needs coordination between districts or municipalities
- Needs public transport to link with core
- Needs jobs and services in satellites
- Example: Shanghai, China – Plan 1999-2020
Work Towards The Right Density

• Every city has to find its own right density

• Density has implications in infrastructure cost
  – Low density (less 80p/ha) higher costs per capita
  – Extreme high density (600p/ha +) higher cost on maintenance

• Density has implications on livability
  – Less than 30 p/ha: road-based public transport not viable
  – Less than 90 p/ha: rail-based public transport not viable
  – More than 150 p/ha: a walkable an environment
Platform for Sustainable New Town Development

Achieving Sustainable New Town Development in Developing Countries

UN-Habitat Regional and Metropolitan Planning Unit (RMPU)/City Planning, Extension and Design Unit (CPEDU)
Area of Expertise: Sustainable New Town Development
Project Status and Duration: 2016-2017 (two year duration)
Partners: Korea Land & Housing Institute (KLHI), International New Town Institute (INTI)
Expected Results:
- An international guide on Sustainable New Town Development will be developed from a policy makers’ perspective and will support decision making of policy makers and stakeholders
  - National Governments & Local Authorities
  - Civil Society and its associations including business community
  - Academia, Planning Professionals and their associations
  - Developers and investors

CONTEXT

Over the past decades, New Town development in developing countries has grown exponentially. More and more governments are using the New Town as a way to accommodate the increasing urban population migrating from rural areas and resolve the overcrowded metropolitan areas’ problems by decentralizing existing functions and employment opportunities. However, wrong location, lower densities and absence of efficient public transportation plans, among others shown in some New Towns, cause criticism by increasing living costs and exacerbating social segregation. Nevertheless, lack of public debate and deep understanding in this topic, keep generating the same problems in different contexts. Therefore, the development of an international guide, which is in accordance with the new urban agenda, is essentially required through global consultation and discussion.

PROCESS AND SOLUTIONS

In order to fill this gap, a joint research for development of an international guide on sustainable New Town development was launched by UN-Habitat and Korea Land & Housing Institute (KLHI). To this guide the International New Town Institute (INTI) will contribute research on new town development in Africa.

UN-Habitat also set a place for international debate regarding past, present and future New Town development in collaboration with KLHI and INTI in Quito. The seminar will be the first Experts Group Meeting (EGM) with the main aim of establishing development strategies for the international guide and forming a global consensus. The guide will be continuously developed by UN-Habitat and partners through future EGMs. Furthermore, the proposed knowledge platform created by UN-Habitat in collaboration with KLHI and INTI will connect experiences, stimulate implementation of the New Urban Agenda through New Town development, and also will make best practices more accessible to similar cities, international institutes and practitioners.

RESULTS AND IMPACT

Well planned New Towns in proper location, which enjoy a degree of self-containment, social balance, and environment-friendly transport, have the potential to transform the ways that we live. They are also intended to be a combined response to challenges such as climate change and the need for more sustainable living. By conducting case studies and developing a guide for sustainable New Town through understanding principles realized in existing new towns and analyzing different potential benefits that they could offer, more sustainable approaches can be applied for future development of New Towns in developing countries.

CONTACT AND FURTHER INFORMATION:
- Remy Sketching | remy.sketching@unhabitat.org | www.unhabitat.org
- Laura Petrella | laura.petrella@unhabitat.org | www.unhabitat.org
- Youngtae Cho | ump2000@lif.bbk.ac.uk | www.lf.bbk.ac.uk
- Simone Riots | s.riots@newtowninstitute.org | www.newtowninstitute.org
Expert Group Meeting

- **Where**: Quito
- **When**: HABITAT III (October 2016)
- **Topic**
  - Sustainable New Town Development
- **Set a place for international debate regarding past, present and future New Town development in collaboration with LHI and INTI**
Principles for Sustainable New Towns

**Considerations for Sustainable New Towns**

1. Design the new town to be the creative, innovative, and unique city
2. Plan the city with safety, amenity and vitality for him or her
3. Make urban spaces for all not to exclude or discriminate any inhabitant
4. The efficient and systematic policy/system are the foundation of making a successful new town.
5. Make the governance of all level and reinforce it
6. Make a new town to be win-win relationship with inner city or mother city
7. Capture capital appreciation of land development, and use this as the finances of public investment.
8. Put yourself in an investor’s position. Grasp what are risk factors to them, and look for how to solve

**10 priorities for New Towns**

- Emphasize innovation
- Base regeneration on existing qualities
- Take the bigger spatial context into account
- New Towns should be inclusive
- Infrastructure and mobility for all, from the start
- The urban plan needs to be flexible
- Adopt green and water networks as the basics for the urban plan
- Combine Top down and bottom up
- Use no universal model and no export of urban models
- Stimulate Exchange and Education
UN-HABITAT APPROACH

• Plan in advance
• Plan at the scale of the expected growth
• Plan in phases
• Apply sustainable & efficient usage of resources & ecosystems
• Promote a system of cities at the national level

The key is offering sufficient, affordable and serviced urban plots
5 PRINCIPLES

1. Adequate space for streets and public space in an efficient street network
   - 30-35% to the street 15-20% public space / 50 % plots.
   - At least 18 km of street length.
   - At least 80 crossings per km²

2. Mixed land use
   - At least 40 percent of floor space allocated to economic use
   - Limited land-use specialization; single use blocks should cover less than 10% of any neighborhood

3. Social mix
   - 20-50% of residential area should be low cost housing
   - Each tenure type should be not more than 50% of the total

4. Adequate density
   At least 15,000 people per km², that is 150 people/ha

5. Connectivity
   Emphasis on walking distances, public transport and contiguity
THANK YOU FOR YOUR ATTENTION