New-type Urbanization, Eco-civilization in China & Potential Impacts on Biodiversity

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- Relationship among Urbanization, Eco-civilization, and Biodiversity
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2012, the report of the 18th Party Congress pointed out Eco-civilization should be integrated into the development model of Five-in-One. Eco-civilization is emphasized and shall be integrated into the construction of economy, politics, culture and society in China.

2014.3, National New-type urbanization plan released.

Biodiversity conservation is an urgent action in the world.
Relationship among Urbanization, Eco-civilization, and Biodiversity

Better Life

Urbanization
- Economy
- Social services
- Traffic
- Convenient lifestyle

Eco-civilization
- Rationality of human being live harmoniously with nature

MS
- Services
- Goods

Balance

ES

Biodiversity
- Ecosystem
- Species
- Genetic

What relationship do they have?
New-type Urbanization in China

- About urbanization
- The past of urbanization in China
- Objectives of New-type Urbanization
- What is new in the New-type Urbanization?
Urbanization develop very fast

- Urbanization, normally expressed as the proportion of people living in urban places.
- Developed countries: around 80% in most European countries.
- Developing countries: will develop fast in the future.

Why focus on urbanization?

- **Wealth**
- **Convenient life** (shopping, traffic, hospital, ...).

Urbanization process and impact

- **Urbanization process:** economic development, immigrant, land change, energy utilization, social services, …

- **Impact:**
  Social problem (crime), environment pollution, biodiversity loss.

- **My idea:** Urbanization should aim at better life, should be judged by economy, society, and environment.
Fast Development: Between 1978 and 2012, the fraction of the nation’s population dwelling in cities increased from 17.9% to 52.6%.

The past of urbanization in China

Many problems: Basic urban infrastructure and service lag behind industrialization, such as traffic, sanitation; social problems (Urban crimes, separate of migrating peasant workers from family); environment pollution; biodiversity loss.
Objectives of New type urbanization

- It covers almost every conceivable aspect of urbanization, from rural–urban migration and integration to the spatial distribution of and linkages between cities; sustainable development; institutional arrangements; and implementation.
- Aims: one of the five aims is China’s urban population fraction to rise by 1% a year to reach *60% by 2020*. 
What is **new** in the New-type Urbanization?

- **People** (basic service, living in urban, education)
- **Environment** (land use, green city)
What is eco-civilization in China?

- People live harmoniously with nature.
- Economy and society develop sustainably

Eco-civilization system

Natural resources saving

Environmental Protection

Territorial resources optimizing
Policies of Eco-civilization System

System of natural resources assets

The system of paid use & Ecological compensation system

Delineation of eco-red line

EC focus on theory and policies.
Natural resources assets management system

- Registration of natural resources
- Establishment of property right system
  Clear vesting, rights and responsibilities; Effective supervision
- Delineation of control limits
- Establishment of economical use of system
- Supervision regime
System of natural resources use

- Paid use (Payment for Ecosystem Services)
- Ecological compensation
Delineation of eco-red line and management system

- National Park System
- System of main function regions
- Protection of land and space systems
- Monitoring and early-warning mechanisms of resources carrying capacity
- Take restrictive measures in the overloading regions
- Cancel the GDP assessment in ecological vulnerable regions
- Exploring natural resources balance sheets
- Establishing liability for environmental damage to life investigating system
Potential Impacts on Biodiversity

- Air pollution
- Marine pollution
- Water pollution
- Land desertification
- Biodiversity decline
- Decrease of forests
Potential Impacts on Biodiversity

Economic development
Social services
Building-up
Traffic

Land use
Natural resources
Energy consume

Habit loss & broken
Over-exploitation
Climate change
Environment pollution
Alien species invasion

Urbanization
Biodiversity

New-type Urbanization
Eco-civilization

New industries & technologies, recycle utilize resources, renewable energy, limit human needs, public traffic, ...
According to nature-considering Urbanization needs, we can build good and useful Eco-civilization policies.

Integrating Eco-civilization policies into Urbanization process, we can improve Biodiversity conservation. That should be **New-type Urbanization in China.**
Thank you for your time
Look forward to learning from you

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