INTEGRATED URBAN RESOURCE MANAGEMENT
A NEW APPROACH

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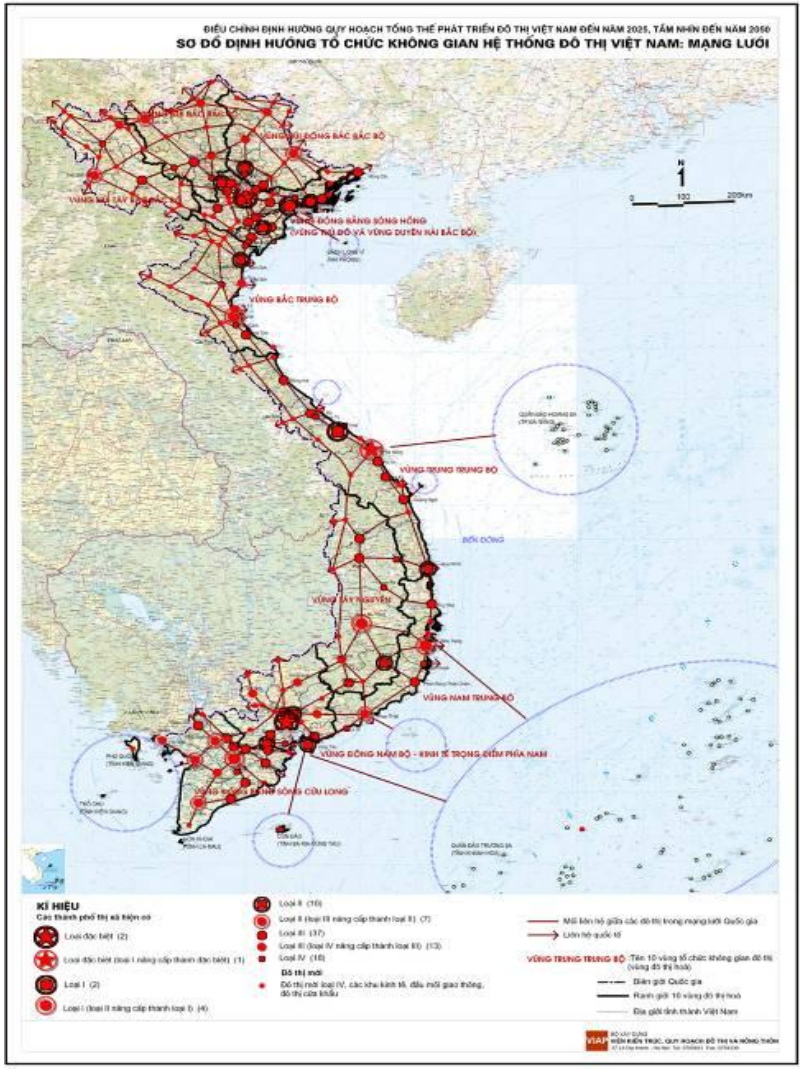
Da Nang, 25/6/2014

I. URBAN CONSTRUCTION AND DEVELOPMENT

- Currently Vietnam has about 770 urban areas, including 2 special urban areas, 14 urban areas of grade I, 10 of grade II, 52 of grade III, 63 of grade IV and the remaining of grade V.
- The average rate of national urbanization reaches over 33.9%.
- Average economic growth in urban areas is 12% -15%, 1.5 to 2 times higher compared to the average rate of the whole country, urban areas contributes about 70-75% of Vietnam GDP annually.

Urban has confirmed its role as the driving force of economic development as well as accelerating economic transition and labor structure in each locality, each region and for the whole country.



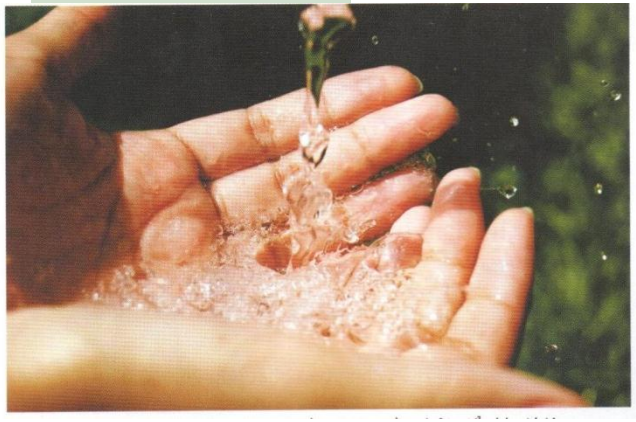
II. TECHNICAL INFRASTRUCTURE CONSTRUCTION

1. Water Supply:

- Total design capacity: 6.9 million m3/day (increasing 160,000 m3 compared to December 2013).

- Total urban population is supply with water: ~79% (at large urban areas >95%).

- Percentage of loss ~26% (43/76 companies reach <25%); decreasing 0.5-1% compared to the end of 2013; towards 2015 this percentage will be decreased to about 24-25% of set target.


II. TECHNICAL INFRASTRUCTURE CONSTRUCTION

2. Water drainage and wastewater treatment:

- Until December 2013, there are 24 wastewater treatment plants in operation, total capacity ~ 670,000 m3/day.
- Until June 2014, about 4 wastewater treatment plants will go into operation, total estimated capacity is nearly 60,000 m3/day.

II. TECHNICAL INFRASTRUCTURE CONSTRUCTION

3. Solid waste treatment:

- Urban domestic waste generation: ~ 31,500 – 32,000 tons/day.
- Collection rate: ~ 84%.
- 458 landfills (S > 1ha); 73.5% unhygenic.
- 26 solid waste treatment plants:

+ 3 plants using incineration technology;

+ 3 plants using incineration technology and composting technology;

+ 20 composting technology and landfill disposal technology.

General assessment……..

Currently, the urban population increases while the urban infrastructure has not really met the requirements; demand for safe water supply, storm water drainage problems, drainage and wastewater treatment; solid waste collection, recycling, reuse or treatment; power supply; rational land use... are major challenges. Therefore, it is needed to have close multidisciplinary cooperation among ministries, sectors and localities in urban development planning, integrated management of urban resources as well as application of innovative scientific technologies.

III. URBAN DEVELOPMENT ORIENTATION

The Decision 445/QD-TTg issued by the Prime Minister dated April 7th, 2009 on Approval of Adjusting Orientation for Master Planning of Cities System in Vietnam to 2025 and Vision to 2050 has identified the following targets:

"*Gradually build a complete system for Vietnam's urban development with urban network model; with consistent, synchronous and modern technical infrastructure, social infrastructure; with good environment and urban life quality; advanced urban architecture imbued with national identity; with high competitiveness in national, regional and international socio-economic development, contributing to good implementation of two strategic tasks of building socialism and national defense".*

III. URBAN DEVELOPMENT ORIENTATION

It is forecasted to 2015, total urban areas are about 870 with a population of over 35 million people, the urbanization rate of about 38%, in 2025 total urban areas will increase to about 1,000 and urban population about 52 million people, accounting for 50% of the national population.

Urban development in 1990-2010 and forecast for 2015-2020

	1990	**1995**	**2000**	**2005**	**2010**	**2015**	**2025**
Number of urban areas	500	550	649	729	752	*870*	*1000*
Urban population (million)	12,9	14,9	18,8	22,3	26,31	*35*	*52*
Urbanization rate (%)	19,5	20,8	24,2	26,9	30,5	*38*	*50*

IV. WATER SUPPLY, DRAINAGE DEVELOPMENT ORIENTATION AND INTEGRATED SOLID WASTE MANAGEMENT TOWARDS 2020

a) Water supply

- Coverage rate of water supply for urban areas from grade IV and above is **90%,** water supply standard is 1**20 liters/person/day**; coverage rate of water supply for grade V urban areas is 70% with the standard of 100 liters/person/day; water quality with regulated standard.
- Percentage of clean water loss is under 18% for urban areas from grade IV and above, under 25% for grade V urban areas; 24h continuous water supply for urban areas from grade IV and above.

IV. WATER SUPPLY, DRAINAGE DEVELOPMENT ORIENTATION AND INTEGRATED SOLID WASTE MANAGEMENT TOWARDS 2020

b) Water drainage and wastewater treatment

- Storm water drainage:

+ Eradict floods in urban areas from grade IV and above.

+ Extend the service capacity of drainage systems to over 80%.

- Wastewater treatment:

+ Urban areas from grade III and above have collection system and centralized wastewater treatment plant; increasing the percentage of domestic wastewater collected and treated with regulated standard to over 60%. Grade IV and grade V urban areas, and craft villages have 40% wastewater treated with regulated standard.

IV. WATER SUPPLY, DRAINAGE DEVELOPMENT ORIENTATION AND INTEGRATED SOLID WASTE MANAGEMENT TOWARDS 2020

c) Solid waste management

- 90% of total urban domestic solid waste are collected and treated to ensure environmental sanitation, in which 85% is for recycle, reuse, energy generation or compost production.
- 80% of total urban construction solid waste are collected and treated, in which 85% is for recycle and reuse.
- 80% of urban areas have solid waste recycling place and waste separation at source (at households).

V. POLICIES AND ORIENTATIONS RELATED TO INTEGRATED URBAN RESOURCE MANAGEMENT

1. Environment Protection Law No. 52/2005/QH11 dated 29/11/2005 of National Congress of the Socialist Republic of Viet Nam:

At Clause 5. Item 3: (State policy on environment protection) Using appropriately and economically natural resources, developing clean energy, renewable energy; promoting waste recycling, reuse and waste elimination.

2. Draft Law on Environment Protection is on submission to the National Assembly:

Clause 5.

Conservation of biodiversity; exploiting and using appropriately and economically natural resources; development of clean and renewable energy; promoting waste recycling, reuse and waste elimination.

V. POLICIES AND ORIENTATIONS RELATED TO INTEGRATED URBAN RESOURCE MANAGEMENT

Prioritizing in handling of urgent environmental problems, serious environmental pollution; focusing on protecting the residential environment; development of environment infrastructure.

Clause 6

2. Protecting and using appropriately and economically natural resources.
3. Minimizing, collecting, reusing and recycling waste.
4. Development and using of clean energy, renewable energy; reducing emissions causing the greenhouse effect and ozone layer destruction; developing activities in response to climate change.

V. POLICIES AND ORIENTATIONS RELATED TO INTEGRATED URBAN RESOURCE MANAGEMENT

2. Decision No. 432/QD-TTg dated 12/4/2012 of the Prime Minister approved the strategy for sustainable development of Vietnam for the period 2011-2020:

The priority orientations:

- Maintaining sustainable economic growth, gradually implementing green growth, development of clean energy and renewable energy.
- Developing and implementing green growth strategy to ensure the development of the economy towards a low carbon economy. Development of clean energy and renewable energy to ensure national energy security.
- Ensuring food security, development of agricultural and rural sustainability.
- Protecting environment and sustainable use of water resources.

V. POLICIES AND ORIENTATIONS RELATED TO INTEGRATED URBAN RESOURCE MANAGEMENT

3. Decision No. 1216/QD-TTg dated 05/9/2012 of the Prime Minister approved the strategy of national environmental protection towards 2020, with a vision to 2030:

Orienting contents and measures for environmental protection:

- Increasing the rate of urban areas, industrial parks/zones, export processing zones having centralized wastewater treatment systems
- Improving the efficiency of water resources, mitigating seasonal water shortages by region and locality
- Sustainable and efficient use of land resource; overcoming the loss of agricultural land use conversion, degradation, discoloration, desertification
- Contributing to mitigation of greenhouse gas emission: Promoting efficient use of energy; exploitation of wind, solar, geothermal and bio-mass energy; electricity production from biogas, waste, agriculture byproducts;

V. POLICIES AND ORIENTATIONS RELATED TO INTEGRATED URBAN RESOURCE MANAGEMENT

4. Decision No. 1393/QD-TTg dated 09/25/2012 of the Prime Minister on approval of the National Strategy for Green Growth in which clearly showing the views of the strategy as follows:

- Green growth is an important part of sustainable development to ensure fast, efficient and sustainable growth while making a significant contribution to the implementation of the national strategy on climate change.

- Green growth is by the people and for the people, contributing to employment, poverty reduction and improving the material and spiritual life of all people.

- Green growth must lead to increased investments in conservation, development and efficient use of natural capital, reduction of greenhouse gas emissions and improvement of environmental quality, and thereby stimulating economic growth.

- Green growth must be based on science and modern technologies which are suitable to Viet Nam's conditions

VI . WATER DRAINAGE AND WASTEWATER TREATMENT MANAGEMENT
NEW CONTENTS

1. **Overview on shortcomings in implementation of Decree No. 88/2007/ND-CP on water drainage in urban areas and industrial zones:**

   - *Scope of adjustment*

   - *Policies to encourage and support the construction of the drainage system is not specific, not yet attract other economic sectors to invest in this sector*

   - *Regulations on owner of drainage system is not reasonable, especially for the drainage system investment from the state capital.*

   - *Insufficient drainage fee to offset administrative costs to operate, maintain and develop the drainage system.*

VI. WATER DRAINAGE AND WASTEWATER TREATMENT MANAGEMENT
NEW CONTENTS

2. Amended, supplementary and new contents

- Scope of adjustment of the Decree.

- Planning the specialized drainage plays an important role in drainage management activities, the basis for the formulation of investment projects for construction of drainage systems.

- Supplementing and specifying investment support policies and drainage connections to attract the resources to invest in the construction of the drainage system.

- Unifying regulations on the responsibilities of owners of drainage system, especially drainage system with investment from the state budget.

- Renewing policies from drainage fee to drainage service and wastewater treatment charges in order to implement the basic principles of polluter pays principle (PPP).

VI. WATER DRAINAGE AND WASTEWATER TREATMENT MANAGEMENT
NEW CONTENTS

Supplement new management regulations not yet mentioned in the old Decree:

- Management of sludge collection, transportation and treatment:
    + Sludge from water drainage system
    + Sludge from septic tanks
- Wastewater treament and management of treated wastewater
- Storm water use and management

CONCLUSION

- Viet Nam has issued many regulations, such as Law, orientation, national strategy… related to integrated management approach in urban development, energy, water and food security.
- These documents have regulated responsiblitis and cooperation mechanisms between Ministries, sectors and localities.
- Obstacles:

  - Management is still on single sector.

  - Cooperation between Ministries, sectors; and cooperation between Ministries, sectors and localities are not tight.

  - Management capacity of Ministries, sectors and authorities of all levels are still limited.

  - Lack of resource for implementation.

THANK YOU VERY MUCH!