

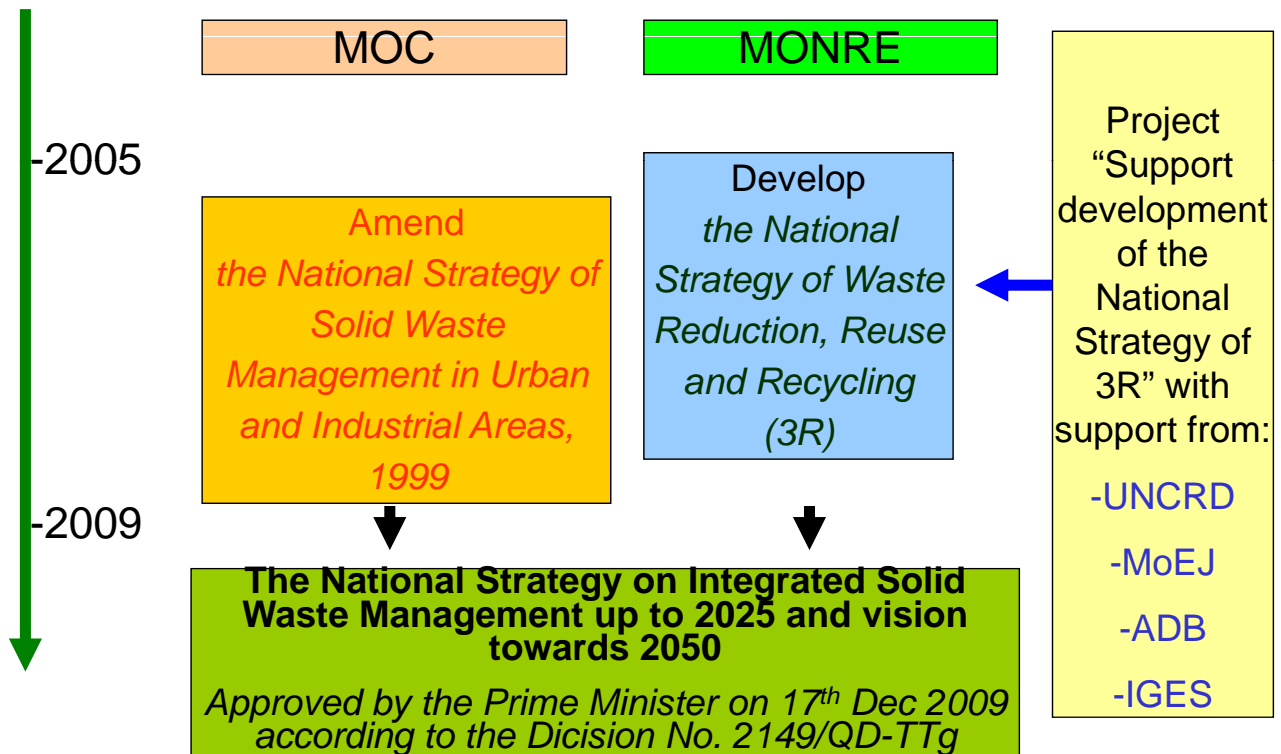
## ***NATIONAL STRATEGY FOR INTEGRATED SOLID WASTE MANAGEMENT UP TO 2025, VISION TO 2050***

Do Son, 28-29/7/2010

### **OUTLINE**

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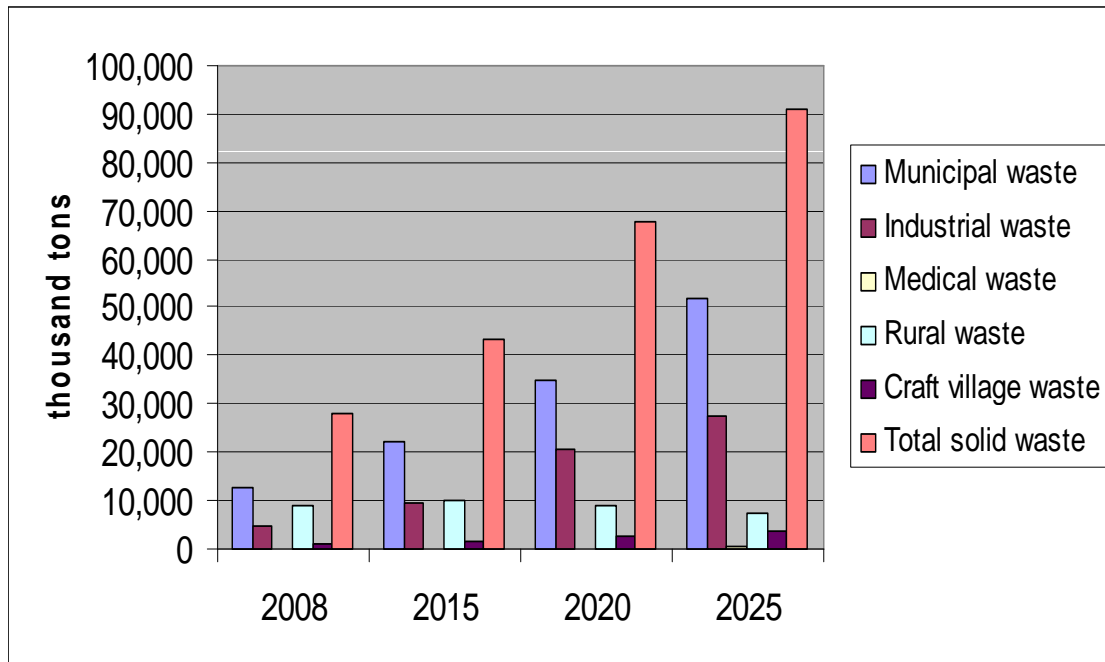
- I. Strategy development process**
- II. Current solid waste management**
- III. National Strategy on ISWM**
  - Viewpoints, Objectives**
  - Tasks of the Strategy**
  - Solutions/**
  - Implementation arrangement**
  - Programmes of the Strategy**
- IV. Lessons learnt**
- V. Challenges for ISWM implementation**  
*(in-country training workshop 27.7.2010)*



## "Support to development of 3R National Strategy" project

- 2005: **Signing MOU between UNCRD and DOE/MONRE**
- 2006: **Background studies**
- 2007: **Development of the outline and the first draft**
- 2008: **Consultation process:**
  - **National experts workshop**
  - **03 regional workshops**
  - **In-house review**
- 2009: **Donors consultation workshop**
- **6/2009: Final Draft of the National 3R Strategy**
- **6-12/2009: Combining with the MOC Strategy and submitted to the Prime Minister to approve the National Strategy on Integrated Solid Waste Management**

## Situation of ISWM in Vietnam (1)



## Situation of ISWM in Vietnam (2)

### - Solid waste prevention and reduction

There haven't been activities of household SW reduction. In industrial scale, number of facilities applying cleaner production is very small, only about 300 of 400,000.

### - At-source sorting of solid waste

At-source sorting of solid waste, excluding medical SW - relatively well, has not yet become a common practice.

At-source sorting of household solid waste has only been undertaken as part of some pilot projects in the big cities.

Household hazardous SW hasn't been sorted separately, has still been landfilled with household SW

## Situation of ISWM in Vietnam (3)

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### ***- Solid waste reuse and recycling***

Recycled activities appeared a long time ago: Recyclable wastes such as metal and paper have been sold by households to garbage-collectors.

The activities have not been managed systematically and orientedly. They have been implemented spontaneously by private facilities.

Old and out of date recycling technology in some craft villages, weak infrastructure cause serious pollution.

Several technologies researched, applied such as SERAPHIN, ASC, Tam Sinh Nghia, hydraulic - machine - manufacture...

## Situation of ISWM in Vietnam (4)

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### ***- Solid waste collection and transportation***

The proportion of collecting SW in medium urban areas is about 80-82%, lowest in Grade IV cities (65%), Hanoi (90%); rural resident areas: 40-55%; in ~ 60% of rural areas, there hasn't been any SW collection service, mainly based on private sector or local communities.

### ***- Solid waste treatment***

The main method of solid waste treatment used is dumping which not ensure environment standards: 82/98

Incinerators have been used mainly for health sector and only meet 50% of total hazardous medical waste.

- Viewpoints, Objectives
- Tasks of the Strategy
- Solutions of the Strategy
- Implementation arrangement
- Programmes of the Strategy

## 1. Viewpoints

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- Integrated management of solid waste is the responsibility of society as a whole, with the State playing the lead role in increasing its socialization, mobilizing its resources to the maximum extent, and strengthening investment in integrated solid waste management.

- Integrated management of solid waste is to occur in an inter-regional and intersectoral manner in order to ensure that economics, techniques, and the safety of society and the environment are optimized, in connection with economic and social development planning, construction planning and other development planning.

- Integrated management of solid waste is a priority of environmental protection, contributing to pollution control for the sustainable development of the country.

## 1. Viewpoints

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- Integrated management of solid waste shall comply with the “Polluter pays principle” by which the organizations and individuals who produce waste, causing environment pollution and degradation, shall be responsible for paying the rehabilitation costs, as well as compensation for environmental damages, according to legal regulations.

- Integrated solid waste management should give highest priority to the prevention and minimization of solid waste generation, and to the at-source sourcing of waste, with the aim of enhancing reuse and recycling in order to reduce the volume of waste that needs to be landfilled.

## 2. Objectives

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### Overall objective to 2025

- To raise the effectiveness of integrated solid waste management for environment quality improvement, community health protection and the sustainable development of the country.

- A system of integrated solid waste management fully developed, resulting in solid waste being sorted at sources, collected, reused, recycled and comprehensively treated by suitable and advanced technologies, limiting to the maximum extent the volume of solid waste that needs to be landfilled, in order to economize land resources and prevent environmental pollution. Hazardous solid waste should be managed and thoroughly handled in suitable ways.

- To raise community awareness about integrated solid waste management, so that they live more environmentally friendly lifestyles. To establish the necessary conditions for the infrastructure, finance and human resources required for the integrated solid waste management.

## 2. Objectives

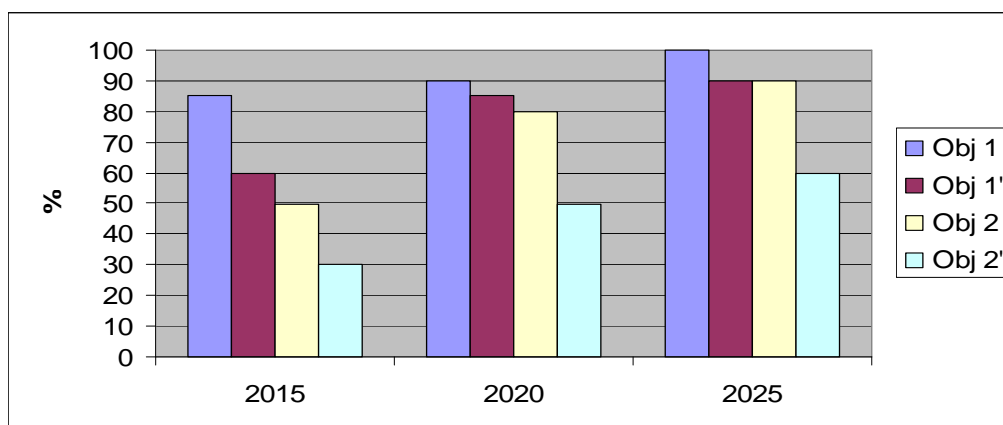
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Specific objective:

- Objective to 2015
- Objective to 2020
- Objective to 2025

## 2. Objectives

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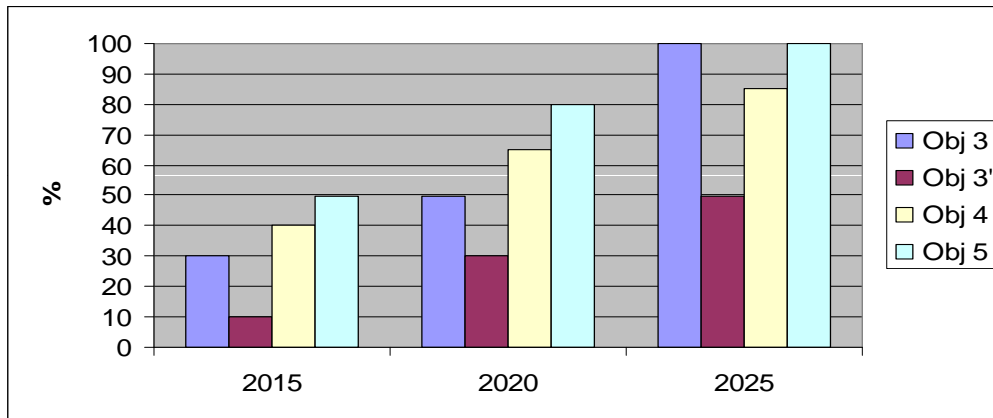
Obj 1: Proportion of total solid waste generated by households in urban area will be collected and treated in an environmentally manner

Obj 1': Proportion of collected and treated households solid waste recycled, reused or recovered for use as an energy source or to produce organic fertilizer

Obj 2: Proportion of total solid waste generated by construction sites in cities will be collected

Obj 2': Proportion of collected construction solid waste reused or recycled

## 2. Objectives



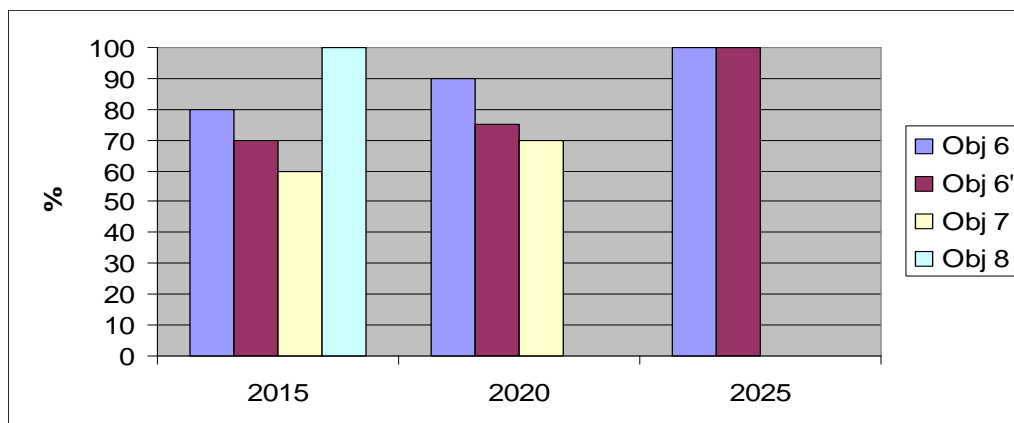
Obj 3: Proportion of the sludge generated by Grade 2 and above cities will be collected and treated in an environmentally friendly manner.

Obj 3': Proportion of the sludge produced by cities of grades lower than 2 will be collected and treated in an environmentally friendly manner.

Obj 4: Proportion of reduction of nylon bags used in supermarkets and other enterprises in commercial centers compared with ones used in the year 2010.

Obj 5: Proportion of cities having their own recycling facilities shall practice at-source separation of household solid waste.

## 2. Objectives



Obj 6: Proportion of total non-hazardous industrial solid waste generated will be collected and treated in an environmentally manner.

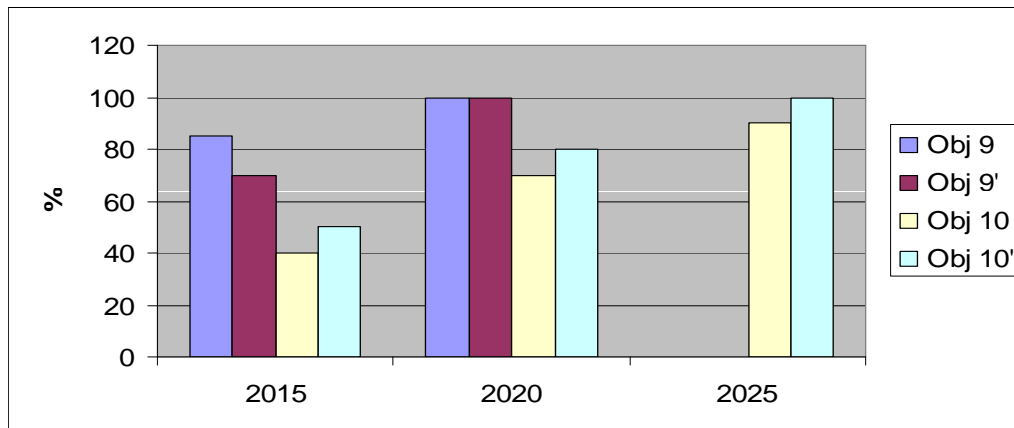
Obj 6': Proportion of collected and treated industrial solid waste reused and recycled.

Obj 7: Proportion of total hazardous solid waste generated by industrial parks will be treated in an environmentally manner.

Obj 8: Proportion of landfills listed by the Prime Minister, in Decision 64/2003/QĐ-TTg on 22 April 2003, as causing severe environmental pollution to be dealt with.

## 2. Objectives

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Obj 9: Proportion of non-hazardous solid waste generated by the health sector will be collected and treated in an environmentally manner.

Obj 9': Proportion of hazardous solid waste generated by the health sector will be collected and treated in an environmentally manner.

Obj 10: Proportion of the solid waste generated in rural areas will be collected and treated in an environmentally manner.

Obj 10': Proportion of the solid waste produced by craft villages will be collected and treated in an environmentally manner.

## 3. Major tasks of the Strategy

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1. Prevention and reduction of solid waste generation
2. At-source solid waste sorting promotion
3. Improving the collection and transportation of solid waste
4. Accelerating solid waste reuse and recycling
5. Solid waste treatment
6. Restoration of the ambient environment of solid waste treatment facilities

### 3. Major tasks of the Strategy

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- Prevention and reduction of solid waste generation:

- + Implementing integrated management of solid waste in conformity with market mechanisms, and collecting fees based upon the volume of solid waste generated.
- + Enhancing reduction of solid waste in households, in production and service.
- + Controlling strictly scrap import.

- At-source solid waste sorting promotion:

- + Promoting community participation in at-source solid waste sorting.
- + Infrastructure development for the sorting, collection and treatment of specific wastes following their sorting.

### 3. Major tasks of the Strategy

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- Improving the collection and transportation of solid waste:

- + Strengthening the capacity of solid waste collection and transport.
- + Expanding solid waste collection network.
- + Enhancing strongly the socialization of collection and transport.

- Accelerating solid waste reuse and recycling:

- + Accelerating solid waste reuse.
- + Waste market development - a waste economy.
- + Development of recycling industry.
- + Encouraging the procurement of recycled products.
- + Formulation and application of incentive policies for recycling activities.
- + Establishing recycling funds.

### 3. Major tasks of the Strategy

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- Solid waste treatment:
  - + Completing policies relating to solid waste treatment.
  - + Developing infrastructure, applying suitable, safe and advanced technology in solid waste treatment.
  
- Restoration of the ambient environment of solid waste treatment facilities:
  - + Guidance on environment recovery procedures and plans.
  - + Mobilizing financial resources for environment recovery.

### 4. Solutions/Actions for implementation

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- Completing the system of legislation and policies on solid waste management
  - Promote master planning of integrated solid waste management
  - Establishment of a solid waste database and data monitoring system nationwide
  - Building human and financial resources to implement the Strategy
  - Scientific research acceleration to serve sound management of solid waste effectively
  - Propaganda and education for better awareness
  - Enhance international cooperation

## 5. Programmes of the Strategy

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Approving the principles of the strategy implementation program: 10 programs.

No.	Name of the Programs	Targets	Completing time	Presiding organizations
1	Program on accelerating the prevention, reduction, reuse and recycling of solid waste	- Developing and implementing the solutions for the prevention, minimization, reuse, and recycling of solid waste - Developing the recycling sector	2020	Ministry of Natural Resources and Environment
2	Program on accelerating at-source solid waste sorting	- Developing regulations and guidelines for at-source sorting of solid waste - Replicate the model of at-source solid waste sorting.	2015	Ministry of Natural Resources and Environment
3	Program on investment in building solid waste disposal plants at the regional level	- Building solid waste disposal plants at the regional level in economic areas throughout the whole country, as approved by the Prime Minister.	2020	Ministry of Construction

## 5. Programmes of the Strategy

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No.	Name of the Programs	Targets	Completing time	Presiding organizations
4	Program on urban household solid waste treatment in the period of 2009 to 2020	- Building urban household solid waste treatment plants for all localities throughout the whole country, applying technologies which minimise the need to send waste to landfill.	2020	Ministry of Construction
5	Program on the environmental recovery of solid waste treatment and landfilling facilities	- Handling with refuse landfills which cause severe environmental pollution, as specified in Decision No. 64/2003/QD-TTg. - Recovering and upgrading solid waste landfills throughout the whole country to achieve environmental standards.	2020	Ministry of Natural Resources and Environment

## 5. Programmes of the Strategy

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No.	Name of the Programs	Targets	Completing time	Presiding organizations
6	Program on strengthening solid waste management in rural areas and craft villages	- Strengthening management of solid waste in the rural areas and craft villages.	2020	Ministry of Agriculture and Rural Development
7	Program on developing a solid waste database and monitoring system	- Developing synchronically a solid waste database and system of monitoring throughout the whole country, in order to increase the effectiveness of solid waste management at the local to central levels.	2020	Ministry of Natural Resources and Environment
8	Program on education to raise public awareness	- Improving the awareness of the public about sorting, reduction, reuse, and recycling of solid waste, and sanitation, through propaganda and education.	2015	Ministry of Information and Telecommunication

## 5. Programmes of the Strategy

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No.	Name of the Programs	Targets	Completing time	Presiding organizations
9	Program on developing the system of policies, laws and institutions on the integrated management of solid waste	- Completing the system of standards, regulations, guidelines, policy mechanism, and institutions on the integrated management of solid waste.	2015	Ministry of Construction
10	Program on solid waste disposal by the health sector in the period of 2009 to 2025	- By 2025, ensuring 100% of solid waste emissions from health establishments will be collected and treated, according to environmental standards.	2025	Ministry of Health

## Lessons Learnt from Strategy development

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- Cooperation with the relevant stakeholders, especially the Ministry of Construction (MOC), which is mandated with municipal solid waste management.
- Participation with experts, scientists and management people contribute much to the strategy
- Projections of the solid waste generation play an important role
- International review, especially experts from Japan, helped in finalization/completing the Strategy
- International experiences play a key role

## Challenges of Strategy implementation

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- Limited financial resources
- Inadequate infrastructure
- Appropriate technologies:
  - Composting is quite ineffective
  - Incineration is expensive
  - Landfilling needs investments
- Low awareness
- Collaboration between the stakeholders
- Implementation mechanism of the programs

## Recommendations for Strategy implementation

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- The Strategy defined the direction for 15 years, so in implementation process there should be participation, collaboration of line ministries
- Sharing information plays a key role
- Programs might be piloted at a smaller scale in some provinces then replicated in other
- There should identify more clear the roles of the Ministry of Industry and Trade (MOIT) and the Ministry of Science and Technology (MOST)
- Participation of the MPI and the MOF are very important

## Recommendations for Strategy implementation

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- There should be a good direction and coordination. A Steering Committee shall be established and an Implementing Office to be set up at the Ministry of Construction.
- Decentralise and give more power to the provincial authorities for the strategy implementation
  - A circular regulating management/implementation/financing of the programs should be issued



*Thank you!*  
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