THE PRIME MINISTER

THE SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

No. 609/QD-TTg

Hanoi, April 25, 2014

DECISION

Approving the Master Plan on solid waste disposal of Hanoi capital to 2030, with a vision to 2050(*)

THE PRIME MINISTER

Pursuant to the December 25, 2001 Law on Organization of the Government;

Pursuant to the November 26, 2003 Construction Law;

Pursuant to the June 17, 2009 Law on Urban Planning;

Pursuant to the Government's Decree No. 59/2007/ND-CP of April 9, 2007, on solid waste management;

Pursuant to the Government's Decree No. 37/2010/ND-CP of April 7, 2010, on elaboration, appraisal, approval and management of urban planning;

Considering the proposal of the chairperson of the Hanoi People's Committee and appraisal opinions of the Ministry of Construction,

DECIDES

Article 1. To approve the Master Plan on solid waste disposal of Hanoi capital to 2030, with a vision to 2050, with the following major contents:

1. Scope of study and planning:

The entire administrative territory of Hanoi capital with a total area of 3,344.6 km^2.

2. Planning viewpoints:

- Conformity with the master plan on socio-economic development; the land use master plan; the master plan on construction of Hanoi capital to 2030, with a vision to 2050; the national strategy for integrated management of solid waste to 2025, with a vision to 2050, and other relevant specialized master plans approved by competent authorities.

- Conformity with topographical, geological and hydrological conditions and the capacity to exploit the land fund.

- Reduction of solid waste at source, increase of re-use and recycling to reduce the volume of solid waste to be buried; catering to the city's demands for solid waste collection, transportation and disposal in each period.

- Sorting of solid waste at source. Waste collection and disposal with advanced and appropriate technologies. Restriction of burial in order to save land resources and mitigate environmental pollution. Lawful collection and disposal of hazardous solid waste without dispersion into the environment.

(*) *Công Báo Nos 477-478 (07/5/2014)*

- Encouragement of all economic sectors to make construction investment and participate in solid waste collection, transportation and disposal activities.

3. Planning objectives:

- To concretize orientations for solid waste disposal planning of Hanoi capital under the master plan on construction of Hanoi capital to 2030, with a vision to 2050 approved by the Prime Minister.

- To project the total volume of generated solid waste and solid waste disposal demands, to determine modes of solid waste collection, transportation and disposal; to identify locations and sizes of solid waste transfer stations and disposal complexes in Hanoi capital.

- To provide a basis for the implementation of investment projects to build, upgrade, improve or expand the collection and transportation systems and solid waste transfer stations and disposal complexes in Hanoi capital.

4. Solid waste disposal planning standards:

Based on current standards and regulations, a number of basic planning targets are as follows:

Solid waste collection targets:

- Daily-life solid waste:

+ In 2020: The collection rate will reach 85-100% in urban areas and 70-80% in rural areas;

+ In 2030: The collection rate will reach 90-100% in urban areas and 80-95% in rural areas.

- Construction solid waste:

+ In 2020: The collection rate will reach 80-100% in urban areas and 60-80% in rural areas;

+ In 2030: The collection rate will reach 85-100% in urban areas and 70-90% in rural areas.

- Industrial solid waste:

+ In 2020, the collection rate will reach 80-90%;

+ In 2030, the collection rate will reach 100%.

- Medical solid waste:

The collection rate will reach 100%, including around 20% for hazardous solid waste and around 80% for ordinary solid waste.

- Septic tank sludge:

+ In 2020: The collection rate will reach 85-100% in urban areas and 65-85% in rural areas;

+ In 2030: The collection rate will reach 90-100% in urban areas and 70-90% in rural areas.

- Wastewater mud: The collection rate will reach 100%.

5. Projection of planning demand

a/ Projected waste volume

No.	Type of solid waste (SW)	In 2020 (ton/day)	In 2030 (ton/day)	In 2050 (ton/day)
1	Daily-life SW	8,500	11,300	15,900
2	Construction SW	2,100	3,400	4,800
3	Industrial SW	1,700	1,900	1,900
4	Medical SW	90	150	280
5	Septic tank sludge	1,500	1,800	2,100
6	Wastewater mud	260	350	400
	Total	**14,150**	**18,900**	**25,380**

b/ Projected land use demand

No.	Item	Current area	In 2020 (ha)	In 2030 (ha)	In 2050 (ha)
1	Disposal complexes	130.15	253.65	422.65	515.95
2	Construction waste disposal sites and wastewater mud landfills	27	74	158	409
	Total	**157.15**	**327.65**	**580.65**	**924.95**

6. Planning contents:

a/ Zoning off of solid waste disposal:

- Principles of zoning off

+ To form disposal complexes with appropriate sizes meeting short- and long-term demands.

+ Reasonable transportation distances and routes with limited running through urban centers.

+ To combine with transport planning orientations under the master plan on construction of Hanoi capital to 2030, with a vision to 2050.

- Zoning-off contents

+ Zone I- Northern part: Covering the historical inner city area, urban districts (South Tu Liem, North Tu Liem, Long Bien and part of Thanh Tri district) and rural districts (Me Linh, Dong Anh, Gia Lam, Soc Son) with a total area of around 1,150 km^2.

+ Zone II- Southern part: Covering part of Thanh Tri district, part of Ha Dong district, and rural districts (Phu Xuyen, Thuong Tin, Thanh Oai, Ung Hoa and My Duc) with a total area of around 990 km^2.

+ Zone III- Western part: Covering part of Ha Dong district, districts (Dan Phuong, Hoai Duc, Phuc Tho, Quoc Oai, Ba Vi, Thach That, Chuong My) and inner and outer areas of Son Tay town, with a total area of 1,204.6 km^2.

b/ Solid waste sorting, collection and transportation

- Sorting:

+ Daily-life solid waste shall be sorted at source into 3 types: Organic solid waste (vegetable, fruit, redundant food, etc.); recyclable inorganic solid waste (paper, plastic, metal, etc.); remaining solid waste.

+ Industrial solid waste shall be sorted into 2 types (hazardous and ordinary industrial solid waste).

+ Medical solid waste shall be sorted into 2 types (hazardous and ordinary medical solid waste). Ordinary medical solid waste shall be further sorted like daily-life solid waste.

- Solid waste collection and transportation:

+ Daily-life solid waste, ordinary industrial solid waste and ordinary medical solid waste shall be collected from their sources to solid waste transfer stations and then to solid waste disposal complexes under planning of each zone.

+ Solid waste from craft villages shall be collected and transported from their places of gathering in craft villages to solid waste disposal complexes under planning.

+ Solid waste in rural areas shall be collected and transported daily or every two days to solid waste grounds of hamlets and villages and transported to solid waste disposal complexes under planning (unplanned unhygienic landfills in rural areas shall be closed according to the investment roadmap to build solid waste disposal complexes of the city).

+ Construction solid waste: Investors shall sign contracts with professional units for collection and transportation to solid waste disposal sites which are built under planning and meet environmental safety and sanitation requirements.

+ Specialized units shall collect septic tank sludge from waste sources and transport it to solid waste disposal complexes under planning.

+ Specialized units shall collect wastewater mud from waste sources and transport it to waste mud landfills under planning.

+ Hazardous medical solid waste and hazardous industrial solid waste shall be sorted, preserved, kept, collected and transported according to standards and technical regulations on environmental safety and sanitation and regulations on hazardous solid waste management. Waste source owners shall sign contracts with units licensed to collect and transport hazardous solid waste which shall be disposed of at hazardous solid waste disposal complexes under planning according to regulations on hazardous solid waste disposal. Operating hazardous medical solid waste incinerators in hospitals shall be gradually closed down according to the investment roadmap for building hazardous solid waste disposal complexes of the city.

- Solid waste transfer stations

The volume of solid waste to be collected and transported to transfer stations with technical infrastructure serving Hanoi city is estimated at 6,700-10,200 tons/day and 5 transfer stations are planned in 3 zones:

+ Zone I: The volume of solid waste is estimated at 4,600-7,700 tons/day, the scope of service of solid waste collection and transportation routes and transfer stations is as follows:

· Thanh Lam transfer station, Me Linh district: 1.5 ha, receiving 750-1,000 tons of solid waste/day and around 350 tons of industrial solid waste/day from Dong Anh and Me Linh districts and Kim Hoa township.

· Tay Mo transfer station, South Tu Liem district: 1.5 ha, receiving 850-1,000 tons/day from Cau Giay, South Tu Liem, North Tu Liem and Thanh Xuan districts.

· Small- and medium-sized transfer stations serving inner city areas, receiving 2,500-3,000 tons/day. The locations of these transfer stations will be identified in the zoning or detailed planning.

· Waste in areas in the neighborhood of disposal complexes may be collected and transported to disposal complexes in Zone I.

+ Zone II: The volume of solid waste to be received is estimated at around 1,000 tons/day, the scope of service of solid waste collection and transportation routes and transfer stations is as follows:

· Ta Thanh Oai transfer station, Thanh Tri district: 1.5 ha, receiving around 800-1,000 tons/day from Ha Dong, Thanh Tri and Thanh Oai districts.

· Waste in areas close to disposal complexes may be collected and transported to disposal complexes in Zone II.

+ Zone III: The volume of solid waste to be received is estimated at around 1,300-1,500 tons/day. The scope of service of solid waste collection and transportation routes and transfer stations is as follows:

· Quoc Oai transfer station, Quoc Oai district: 1.5 ha, receiving around 500-700 tons/day from part of Ha Dong district and Hoai Duc and Quoc Oai districts.

· Chuc Son transfer station, Chuong My district: 1.5 ha, receiving around 500-700 tons/day from Chuong My district and part of Hoai Duc district.

· Waste in areas close to disposal complexes may be collected and transported to disposal complexes in Zone III.

c/ Planning of solid waste disposal complexes:

Under the planning of solid waste disposal complexes, Hanoi capital will have 17 solid waste disposal complexes, including 8 existing zones to be upgraded and expanded and 9 new ones, which will be zoned off as follows:

* Zone I: To have 5 solid waste disposal complexes

- Soc Son solid waste disposal complex (currently operating, to be expanded)

+ Location: In Nam Son, Bac Son and Hong Ky communes, Soc Son district.

+ Existing area: 83.5 ha, to be expanded to 157 ha by 2020; 257 ha by 2030; and 280 ha by 2050.

+ Capacity: Around 4,500 tons/day by 2020; around 6,000 tons/day by 2030; and around 7,000 tons/day by 2050.

+ Function: To dispose of daily-life solid waste, septic tank sludge, and ordinary and hazardous industrial solid waste and medical solid waste.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

· Hygienic burial with energy recovery.

+ Scope of service: Inner city areas, urban districts (South Tu Liem, North Tu Liem)

and rural districts (Soc Son, Dong Anh, Me Linh, Thanh Tri). Particularly for industrial solid waste, inter-provincial service (Vinh Phuc, Bac Ninh and Hung Yen provinces).

- Viet Hung solid waste disposal complex (currently operating)

+ Location: Viet Hung commune, Dong Anh district, Hanoi.

+ Existing area: 8.75 ha.

+ Capacity: Around 300 tons/day by 2020; around 600 tons/day by 2030; and around 600 tons/day by 2050.

+ Function: To dispose of daily-life solid waste and ordinary industrial solid waste.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

+ Scope of service: Dong Anh district and supporting Soc Son disposal complex in disposing of daily-life solid waste and ordinary industrial solid waste.

- Kieu Ky solid waste disposal complex (currently operating)

+ Location: Kieu Ky commune, Gia Lam district.

+ Existing area: 14 ha.

+ Capacity: Around 550 tons/day by 2030; and around 1,000 tons/day by 2050 (when the burning plant is built).

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology:

· Hygienic burial with energy recovery (which will stop by 2020).

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

+ Scope of service: Long Bien and Gia Lam districts.

- Phu Dong solid waste disposal complex (new construction)

+ Location: Phu Dong commune, Gia Lam district.

+ Area: 7.5 ha by 2020, 12.5 ha by 2030; and 20 ha by 2050.

+ Capacity: Around 550 tons/day by 2020; around 850 tons/day by 2030; and around 1,200 tons/day by 2050.

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

· Hygienic burial with energy recovery.

+ Scope of service: Long Bien and Gia Lam districts. When necessary, to provide support for Soc Son and Viet Hung solid waste disposal complexes.

- Cau Dien solid waste disposal complex (currently operating)

+ Location: Cau Dien township, Tu Liem district.

+ Area: 3.9 ha without expansion.

+ Capacity: Around 300 tons/day.

+ Currently being a plant treating organic solid waste into compost fertilizer and burning hazardous medical solid waste.

+ Function: To dispose of daily-life solid waste, septic tank sludge and hazardous medical solid waste.

+ Technology:

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning hazardous medical solid waste.

+ Scope of service: Inner-city areas.

* Zone II: To have 6 solid waste disposal complexes

- Chau Can solid waste disposal complex (new construction)

+ Location: Chau Can commune, Phu Xuyen district.

+ Area: 7.5 ha by 2020, 13 ha by 2030; and around 20 ha by 2050.

+ Capacity: Around 450 tons/day by 2020; around 800 tons/day by 2030; and around 1,000 tons/day by 2050.

+ Function: To dispose of daily-life solid waste, septic tank sludge and ordinary medical solid waste.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

· Hygienic burial with energy recovery.

+ Scope of service: Thuong Tin and Phu Xuyen districts and part of Thanh Tri district.

- Cao Duong solid waste disposal complex (new construction)

+ Location: Cao Duong commune, Thanh Oai district.

+ Area: 6 ha by 2020, 9 ha by 2030; and 15 ha by 2050.

+ Expected capacity: Around 400 tons/day by 2020; around 500 tons/day by 2030; and around 750 tons/day by 2050.

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

· Hygienic burial with energy recovery.

+ Scope of service: Thanh Oai and Ung Hoa districts and part of Thanh Tri and Thuong Tin districts.

- Hop Thanh solid waste disposal complex (new construction)

+ Location: Hop Thanh commune, My Duc district.

+ Area: 2 ha by 2020, 6 ha by 2030; and around 13 ha by 2050.

+ Expected capacity: Around 150 tons/day by 2020; around 450 tons/day by 2030; and around 850 tons/day by 2050.

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

+ Scope of service: My Duc district and its neighborhood.

- My Thanh solid waste disposal complex (new construction)

+ Location: My Thanh commune, My Duc district.

+ Area: 1 ha by 2020, 2.5 ha by 2030; and 5 ha by 2050.

+ Expected capacity: Around 1000 tons/day.

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology: Hygienic burial with energy recovery.

+ Scope of service: My Duc district and its neighborhood.

- Van Dinh solid waste disposal complex (currently operating, to be expanded)

+ Location: Van Dinh and Lien Bat communes, Ung Hoa district.

+ Area: currently 3 ha, to be expanded to 5 ha by 2030; and 7 ha by 2050.

+ Expected capacity: Around 150-200 tons/day.

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Hygienic burial with energy recovery.

· Burning combined with energy recovery.

+ Scope of service: Ung Hoa district.

- Dong Lo solid waste disposal complex (currently operating, to be expanded)

+ Location: Dong Lo commune, Ung Hoa district.

+ Area: currently 2 ha, to be expanded to 2.5 ha by 2030; and 5 ha by 2050.

+ Expected capacity: Around 150-200 tons/day.

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

· Hygienic burial with energy recovery.

+ Scope of service: Ung Hoa district.

* Zone III: To have 6 solid waste disposal complexes

- Xuan Son solid waste disposal complex (currently operating, to be expanded)

+ Location: Son Tay town and Ba Vi district.

+ Area: Currently 13 ha, to be expanded to 26 ha by 2020; 57 ha by 2030; and 73.5 ha by 2050.

+ Capacity: Around 700 tons/day by 2020; around 1,600 tons/day by 2030; and around 2,500 tons/day by 2050.

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

· Hygienic burial with energy recovery.

+ Scope of service: Son Tay town, Dan Phuong, Hoai Duc, Phuc Tho, Quoc Oai, Ba Vi, Thach That and Chuong My districts and part of Ha Dong district.

- Dan Phuong solid waste disposal complex (new construction)

+ Location: Phuong Dinh commune, Dan Phuong district.

+ Area: 2 ha by 2020; 5 ha by 2030; and 5 ha by 2050.

+ Capacity: 150-300 tons/day.

+ Function: To dispose of daily-life solid waste.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Burning combined with energy recovery and burial of ash after burning.

+ Scope of service: Dan Phuong and Phuc Tho districts.

- Thoong Mountain solid waste disposal complex (currently operating, to be expanded)

+ Location: Tan Tien commune, Chuong My district.

+ Area: currently 2 ha, to be expanded to 3 ha by 2020; 7.5 ha by 2030; and 10 ha by 2050.

+ Capacity: Around 200 tons/day by 2020; around 450 tons/day by 2030; and around 450 tons/day by 2050.

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

· Hygienic burial with energy recovery.

+ Scope of service: Part of Ha Dong district, Chuong My and Quoc Oai districts, and supporting Xuan Son disposal complex in disposing of solid waste.

- Lai Thuong solid waste disposal complex (new construction)

+ Location: Lai Thuong commune, Thach That district.

+ Area: 4 ha by 2020; 6 ha by 2030; and 11.8 ha by 2050.

+ Capacity: Around 300 tons/day by 2020; around 450 tons/day by 2030; and around 700 tons/day by 2050.

+ Function: To dispose of daily-life solid waste and septic tank sludge.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

+ Scope of service: Thach That district, and supporting Xuan Son disposal complex in disposing of solid waste.

- Dong Ke solid waste disposal complex (new construction)

+ Location: Dong Ke commune, Chuong My district.

+ Area: 5 ha by 2020; 11 ha by 2030; and 21 ha by 2050.

+ Expected capacity: Around 350 tons/day by 2020; around 600 tons/day by 2030; and around 1,200 tons/day by 2050.

+ Function: To dispose of daily-life solid waste, septic tank sludge and ordinary medical solid waste.

+ Technology:

· Recycling of plastic, paper, iron, steel, etc.

· Bio-technology turning organic solid waste into bio-fertilizer.

· Burning combined with energy recovery.

· Hygienic burial with energy recovery.

+ Scope of service: Chuong My, Quoc Oai and Hoai Duc districts and part of Ha Dong district.

- Tay Dang solid waste disposal complex (new construction)

+ Location: Tay Dang township, Ba Vi district.

+ Area: 1 ha by 2020; 2 ha by 2030; and 3 ha by 2050.

+ Burying capacity: Around 100 tons/day.

+ Function: To dispose of daily-life solid waste.

+ Technology:

· Hygienic burial with energy recovery.

+ Scope of service: Tay Dang township.

In addition, under the overall planning and zoning planning of Hanoi capital, there will

be Tien Son solid waste disposal complex in Luong Son district, Hoa Binh province, with an area of around 200 ha which will help dispose of industrial solid waste (ordinary and hazardous) for Hanoi capital.

d/ Planning of construction solid waste disposal sites and wastewater mud landfills:

To plan 26 construction solid waste disposal sites with a total area of 39 ha by 2020 and 108 ha by 2030 and 3 wastewater mud landfills with a total area of 8 ha by 2020 and 23 ha by 2030 as follows:

7. Solid waste disposal technology

+ Solid waste disposal technologies shall be selected suitable to socio-economic conditions and based on the sorting capacity and properties and compositions of solid waste.

+ Recycling technology must produce products meeting market demands.

+ Domestic energy-efficient and environment-friendly technologies shall be prioritized.

+ Technologies for disposing of ordinary solid waste include bio-fertilizer processing, burning with energy recovery, recycling, hygienic burial, etc.

+ Technologies for disposing of hazardous solid waste include burning, hygienic burial, etc.

8. Projects proposed for investment priority up to 2020:

a/ Zone I: Northern part:

- Expansion of Soc Son disposal complex, Soc Son district.
- Construction of Tay Mo transfer station, Tu Liem district.
- Construction of Tien Thang construction solid waste disposal site, Me Linh district.
- Construction of Duc Tu construction solid waste disposal site, Dong Anh district.

b/ Zone II: Southern part:

- Construction of Chau Can disposal complex, Phu Xuyen district.
- Construction of Chuong Duong construction solid waste disposal site, Thuong Tin district.
- Construction of Duyen Ha construction solid waste disposal site, Thanh Tri district.
- Construction of a wastewater mud landfill in Chuong Duong commune, Thuong Tin district.

c/ Zone III: Western part:

- Expansion of Xuan Son disposal complex, Son Tay town.
- Construction of Dong Ke disposal complex, Chuong My district.
- Construction of Van Con construction solid waste disposal site, Hoai Duc district.
- Construction of An Thuong construction solid waste disposal site, Hoai Duc district.
- Construction of Trung Chau construction solid waste disposal site, Dan Phuong district.

9. General cost estimation and investment capital sources:

a/ General estimation of investment cost:

The total capital needed for the solid waste planning of Hanoi capital to 2030, with a vision to 2050, is estimated at around VND 11 trillion, including around VND 3.5 trillion in construction costs to 2020.

b/ Investment capital sources:

- State budget funds.
- ODA loans, foreign capital.
- Investment credit capital.
- Domestic commercial loans.
- Capital from domestic and overseas investors.
- Other lawful capital sources.

10. Strategic environmental assessment:

a/ Positive environmental impact:

- To collect and dispose of solid waste to meet environmental sanitation requirements, contributing to reducing adverse environmental impacts of solid waste.

- To build solid waste disposal complexes and apply appropriate technologies to thoroughly dispose of solid waste; to limit and remove unhygienic solid waste gathering points and landfills in order to reduce pollution and improve the environment for Hanoi capital.

- To contribute to protect public health and sustainable development of urban areas and industrial zones in Hanoi capital.

b/ Projected environmental impacts upon implementation of the master plan:

- Operations of vehicles transporting solid waste will be likely to cause air and noise pollution, or affect traffic safety, etc.

- The construction of solid waste disposal complexes will cause environmental impacts and affect the community.

- The operation of disposal complexes will be likely to cause noise, dust and environmental pollution.

- Transportation activities at gathering points, transfer stations and the operation of solid waste disposal complexes will be likely to cause environmental incidents (dispersion of hazardous gas, hazardous substances, discharge of wastewater into the environment, etc.) or cause environmental pollution if the operation process fails to comply with environmental regulations and standards.

c/ Solutions for mitigation of environmental impacts:

- Solutions which use advanced and appropriate technologies and ensure solid waste disposal according to environmental standards and technical regulations.

- When implementing projects, construction measures to reduce pollution of the soil, water and air environments and noise pollution should be applied. To work out safety measures and measures against accidents and incidents in the course of construction.

- To elaborate and strictly implement regulations on solid waste collection and transportation and operation of solid waste disposal complexes.

- Upon project implementation, to assess environmental impacts and take other support measures.

- To take measures to collect and treat emitted gas, wastewater, smoke and dust from disposal complexes, solid waste landfills and reduction measures according to the approved environmental impact assessment.

- To elaborate plans and programs on observation of the quality of the air, surface water, groundwater and soil environments.

- To warn environmental incidents and propose solutions for prevention, control and mitigation of adverse impacts on the environment.

- To build capacity to manage and operate solid waste disposal complexes.

Article 2. Organization of implementation

1. The Hanoi People's Committee:

- To organize the implementation of the Master Plan on solid waste disposal of Hanoi capital to 2030, with a vision to 2050.

- To assume the prime responsibility for, and coordinate with ministries and sectors in, effectively implementing investment projects under the Master Plan.

- To elaborate financial plans corresponding to investment plans to develop the system of solid waste collection, transportation and disposal for each period; to develop mechanisms and policies to raise funds for the implementation of this master plan, encouraging economic sectors to make construction investment and participate in solid waste management in Hanoi.

- To review and make land use plans for solid waste disposal facilities.

- To direct and organize the uniform implementation of projects from at-source sorting, collection and transportation to construction solid waste disposal complexes in the locality under approved planning.

- To develop programs to raise public awareness about environmental sanitation and sorting of solid waste at source in urban areas, to be expanded to rural areas.

- To complete the organizational structure and management of solid waste collection, transportation and disposal; to develop appropriate models of solid waste disposal businesses in Hanoi capital.

2. Related ministries and sectors:

- To coordinate with the Hanoi People's Committee in supervising and inspecting the exploitation, management and use of solid waste disposal facilities.

- Based on their assigned functions and tasks, to coordinate with the Hanoi People's Committee in implementing the Master Plan.

Article 3. This Decision takes effect on the date of its signing.

Ministers, heads of related agencies and the chairperson of the Hanoi People's Committee shall implement this Decision.-

For the Prime Minister
Deputy Prime Minister
HOANG TRUNG HAI