THE PRIME MINISTER

No. 2065/QD-TTg

SOCIALIST REPUBLIC OF VIET NAM
Independence - Freedom – Happiness

Hanoi, November 12, 2010

DECISION

APPROVING THE MASTER PLAN ON WATER SUPPLY IN THE MEKONG RIVER DELTA KEY ECONOMIC REGION THROUGH 2020

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 Government's Decree No. 08/ 2005/ND-CP of January 24, 2005, on construction planning;

Pursuant to the Government's Decree No. 117/2007/ND-CPof July 11, 2007, on clean water production, supply and consumption;

At the proposal of the Minister of Construction,

DECIDES:

Article. 1. To approve the master plan on water supply in the Mekong River delta key economic region through 2020:

1. Scope of the master plan:

- Scope of study: 7 provinces and city to the southwest of Hau river in the Mekong River delta, including Can Thocity and An Giang, Kien Giang, Ca Mau, Soc Trang. Bac Lieu and Hau Giang provinces.

- Scope of planning: the Mekong River delta key economic region, covering the administrative territories of Can Tho city and An Giang, Kien Giang and Ca Mau provinces, with a total area of 16,617 km2.

2. Viewpoints of the master plan:

- The master plan on water supply in the Mekong River delta key economic region must be in line with the socio-economic development master plan, the master plan on construction of the Mekong River delta through 2020 and a vision to 2050, orientations for water supply development in urban areas and industrial parks through 2025 and a vision to 2050, and other approved relevant specialized master plans of the region and provinces.

- To sustainably develop water supply by optimally tapping all resources to meet clean-water needs of people and production and business activities; to stably supply quality water with good service and socio-economic efficiency.

- To exploit, produce and supply clean water regardless of administrative boundaries. To prioritize the exploitation of surface water sources, and rationally utilize and exploit groundwater sources, step by step reducing the exploited groundwater volume.

- To use water supply technologies and equipment suitable to local specific conditions, giving priority to the application of modern and energy-saving technologies and equipment.

- To encourage domestic economic sectors to participate in building, managing and operating water supply systems to meet water needs.

3. Objectives of the master plan:

- To concretize water supply orientations set in the master plan on construction of the Mekong River delta through 2020 and a vision to 2025, taking into account the impacts of climate change.

- To identify water needs of urban centers, industrial parks and rural residential areas in the region; the exploitation capacity of surface water and groundwater sources; orientations for rational exploitation and development of the urban water supply system of the Mekong River delta key economic region to meet water needs in each period.

4. Contents of the master plan:

a/ Water supply standards:

To comply with current standards and regulations;

- Period up to 2015:

+ For urban centers of grade III or higher grade, the water supply standard is 120 liters/ person/day and 90% of inhabitants will be supplied with clean water.

+ For urban centers of grades IV and V, the water supply standard is 100 liters/person/day and 85% of inhabitants will be supplied with clean water.

+ For industrial parks, the water supply standard is 25-40 m3/ha/day.

+ For rural residential areas, the water supply standard is 80 liters/person/day and 60% of inhabitants will be supplied with clean water.

+ The average wastage rate of clean water is below 25%.

- Period up to 2020:

+ For urban centers, the water supply standard is 120 liters/person/day and 100% of inhabitants will be supplied with clean water.

+ For industrial parks, the water supply standard is 40 m3/ha/day.

+ For rural residential areas, the water supply standard is 80-100 liters/person/day and 100% of inhabitants will be supplied with clean water.

+ The average wastage rate of clean water is below 18%.

b/ Water treatment technologies:

Based on local specific conditions, to use appropriate clean water technologies and equipment, prioritizing domestically available modem, quality and energy-saving ones.

To step by step renovate, upgrade and replace equipment for existing plants with a view to reducing water wastage and energy, chemical and operation expenses.

c/ Forecast of water needs of the Mekong River delta key economic region:

- By 2015:

No.	Province/City	Water needs by 2015			
		Water for daily life (m3/day)		Water for industrial activities (m3/day)	Total (m3/day)
		Rural areas	Urban areas		

1	Can Tho city	17,680	145,757	63,808	227,245
2	An Giang province	35,100	125,658	6,944	167,702
3	Kien Giang province	27,040	168,329	2,800	198,169
4	Ca Mau province	24,700	91,519	36,932	153,151
	Total	104,520	531,263	110,484	746,267

- By 2020:

No.	Province/City	Water needs by 2020			
		Water for daily life (m3/day)		Water for industrial activities (m3/day)	Total (m3/day)
		Rural areas	Urban areas		
1	Can Tho city	52,000	207,798	231,808	491,606
2	An Giang province	135,200	175,776	13,344	324,320
3	Kien Giang province	25,480	260,904	136,000	422,384
4	Ca Mau province	37,440	137,442	54,464	229,346
	Total	250,120	781,920	435,616	1,467,656

d/ Master plan on water supply in the Mekong River delta key economic region:

- Water sources:

Surface water of Hau river is a major water supply source. The water-taking place is Hau river's upstream area which is 30-50 km away from the sea to ensure that the water source is stable and free of alum or salt.

To partially exploit groundwater on a small scale as at present to supply water for Ca Mau city and a number of townships in the region. After 2020, to stop exploiting groundwater.

- Plan on inter-provincial water plants:

+ Three inter-provincial water plants are expected to be built in the Mekong River delta key economic region:

No.	**Water plant**	**Location**	**Projected capacity**	**Water source**	**Service coverage**
1	Hau River water plant I	Tan Thanh area of Can Tho city	- Phase I: 500,000 m3/day; - Phase II: 1,000,000 m3/day	Hau river	Can Tho city; Soc Trang province; the corridor west of Hau river and north of Hau river (Ben Tre and Tra Vinh)
2	Hau River water plant II	Chau Thanh area of An Giang province	- Phase I: 1,000,000 m3/day; - Phase II; 2,000,000 m3/day	Hau river	Key economic regions (Can Tho, An Giang, Kien Giang and Ca Mau) and part of Hau Giang and Bac Lieu
3	Hau River water plant III	Chau Doc area of An Giang province	- Phase I: 200,000 m3/ day;	Hau river	An Giang and Kien Giang provinces, concentrating on

			- PhaseII; 500,000 m3/day		urban areas along the southwestern border

+ Inter-provincial pipeline network: To build a network of water supply pipelines from inter-provincial water plants to major urban centers of the provinces in the key economic region and Soc Trang, Bac Lieu and Hau Giang provinces. These pipelines will have a diameter of 600-2,000 mm.

- Plan on provincial water plants:

To invest in provincial water plants in provinces and cities to supply water for urban centers and adjacent areas network of water supply pipelines in urban centers under plans to meet local water needs.

+ To completely build and upgrade the existing network of water supply pipelines in urban centers and industrial parks. To increase the effectiveness of the existing water supply system.

- During 2015-2020:

To make preparations for building water plants and a network of inter-provincial clean-water supply pipelines:

No.	Water plant	Capacity (m3/day)		
		Present	2015	2020
I	Can Tho city			
1	Can Tho water plant 1	50,000	50.000	50,000
2	Can Tho water plant 2	40,000	80,000	-80,000
3	Tra Noc water plant	10,000	10,000	10,000
4	Hung Phu water plant	10,000	10,000	10,000
5	Co Do water plant		15,000	15,000
II	An Giang province			
6	Binh Due water plant of Long Xuyen city	38,000	70,000	70,000
7	Water plant of Chau Doc town	16,000	20,000	20,000
III	Kien Giang province			
8	Rach Gia water plant	35,000	45,000	45,000
9	Ha Tien water plant	8,000	16,000	16,000
10	Phu Quoc water plant	5,000	15,000	15,000
IV	Ca Mau province			
11	Water plant of Ca Mau city	28,000	50,000	50,000

5. Investment phasing:

- In the period up to 2015:

+ To review and adjust water supply plans and projects in the region's provinces in conformity with this master plan.

+ To continue implementing investment projects to build provincial water plants and a

+ Hau River water plant I in Tan Thanh area of Can Tho city.

+ Hau River water plant II in Chau Thanh area of An Giang province. To increase the capacity of pump station I to supply water for Hau River water plant I in case sea water encroaches beyond Can Tho.

+ Hau River water plant III in Chau Doc area of An Giang province.

+ A network of clean water pipelines along development corridors (national highway 1, 80, 61 and 63, and the southern trans-Asia road, etc.).

6. Investment capital sources:

Capital sources for building water supply systems:

- State budget;

- ODA and foreign aid;

- Investment credit;

- Domestic and foreign investors;

- Other lawful sources.

7. Strategic environmental assessment:

- Forecast of environmental impacts caused by the implementation of the master plan:

+ The exploitation of water sources for daily-life and industrial needs will reduce water sources for agricultural production and aquaculture; impact the river currents which may lead to salinization and eco-system change.

+ The construction of water plants and pipelines may cause traffic congestion, noise or environmental pollution in the region, especially along national highways.

+ During water supply management and operation, leaks may appear in the network of pipelines, directly affecting the volume and flow of water in localities.

- Measures to mitigate environmental impacts:

+ To adopt designing and technological solutions meeting the requirements on protection of the eco-environment and water sources.

+ During construction:

. To work out appropriate construction methods and solutions to minimizing negative environmental impacts.

. Measures to treat air pollution and noise caused by vehicles and construction machines at construction sites and along routes of transportation.

. Measures to prevent incidents.

+ During management and operation:

. To increase water suppliers' capacity to manage and operate water plants.

. To work out and implement plans on safe water supply.

. To develop a process of preventing, detecting and handling incidents in the clean water supply system.

+ Other supporting measures.

Article 2. Organization of implementation

1. The Ministry of Construction shall:

- Publicize this master plan.

- Guide localities in reviewing and adjusting local construction plans and specialized water supply plans in line with this master plan.

2. Concerned ministries and sectors shall, based on their functions and tasks assigned by the Government, coordinate with the Ministry of Construction and People's Committees of provinces and centrally run city in the Mekong River delta key economic region in implementing this master plan.

3. People's Committees of provinces and centrally run cities in key economic regions shall:

- Review and adjust local construction plans and specialized water supply plans in line with this master plan.

- Encourage domestic economic sectors to participate in building water supply systems in localities.

Direct the implementation of investment projects to build local water supply systems under current regulations.

- To conduct public information work to raise awareness and responsibilities of organizations and individuals for protecting water supply systems and the role of clean water in life.

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

The Minister of Construction, other concerned ministers, chairpersons of People's

Committees of provinces and centrally run city in the Mekong River delta key economic region and heads of relevant agencies shall implement this Decision.-

FOR THE PRIME MINISTER
DEPUTY PRIME MINISTER

Hoang Trung Hai