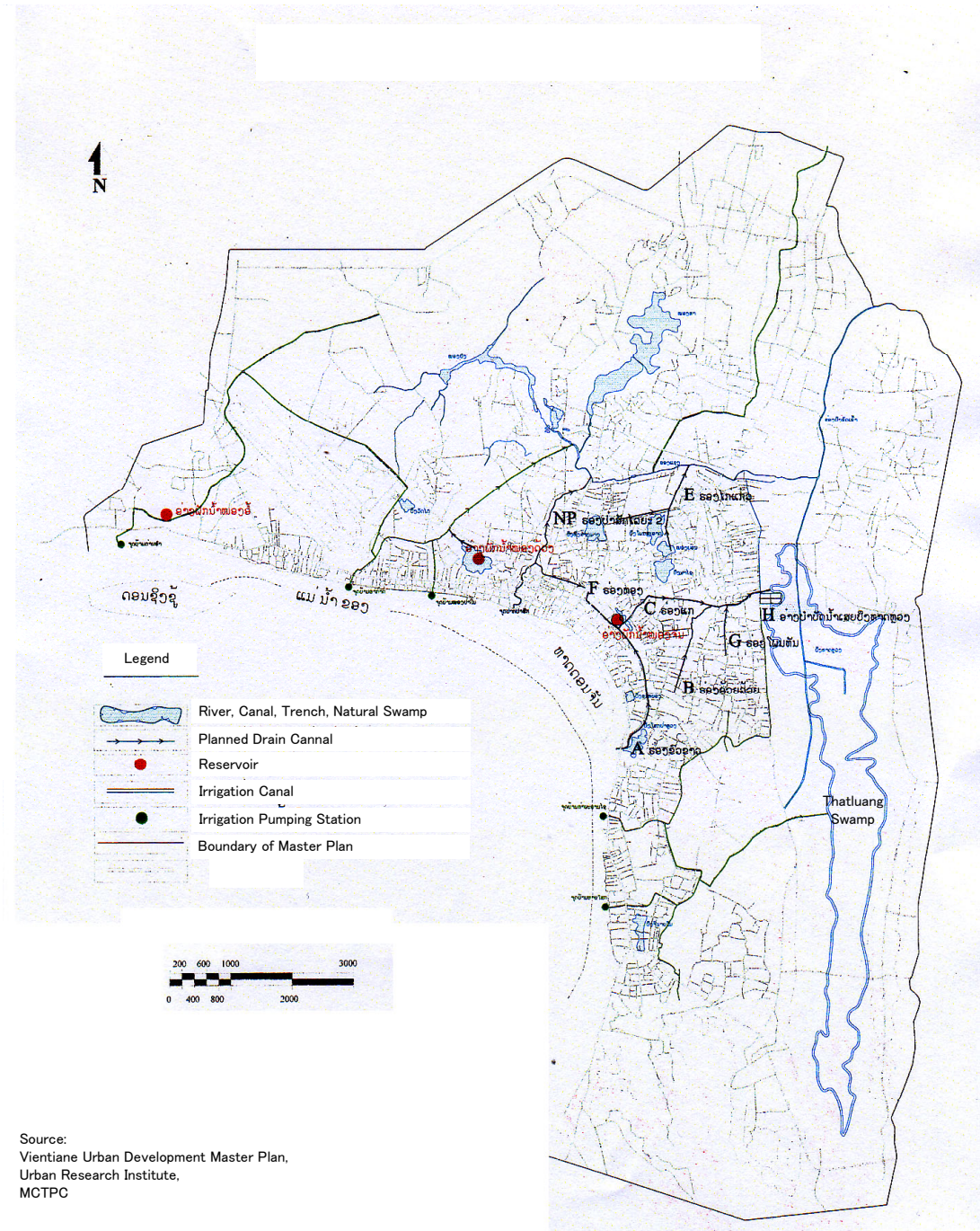


Figure 25-6 Drainage System



### 2.5.3 GDP Projection

An accurate long-term projection of the GDP is necessary for formulating the future framework of the socio-economic structure in the project sites. Official economic projections in “Five-year National Development Plan 2001-2005” and “Long-term Development Plan 2001-2020” were described in Section 5.1. The Five-year Plan has a more specific projection that includes sectoral scenarios, but the “Long-term Plan” shows overall targets for the year 2020. In this study, then, the future projections are based on the “Five-year Plan” projection scenario. The criteria for the projection are assumed as follows.

- (1) That major sectors grow at the following annual rates until 2005 as proposed in the “Five-year Plan”: 4.5% in the agricultural sector, 10.5% in the industrial sector, 8.5% in the services sector and a 7.0% rise from import duties. As a result, the GDP is expected to grow at 7.0% per annum on average during the planned period.
- (2) That after 2005, the respective sectors grow at the same rates as set in the “Five-year Plan” until the target year 2020.

The GDP projected with the above assumptions are shown in Table 25-1. By 2020, the GDP projection is summarised in the table below. The GDP values were estimated at 2001 constant prices.

Item	2001	2005	2010	2020
GDP (Trillion Kip)	15.7	20.6	29.2	61.7
GDP per Capita (Million Kip)	2.9	3.5	4.3	7.1
GDP per Capita (US\$)	330	390	490	800

As shown in the table above, the GDP per capita is estimated to reach 7.1 million kip (equivalent to US\$800) by 2020. Since the GDP per capita in 2001 was 2.9 million kip (US\$330), the amount for 2020 is around 2.5 times more than that of 2001. Overall growth rates between 2001 and 2020 were calculated at 7.5% per annum for GDP and 4.8% per annum for GDP per capita. In Vientiane Capital City, the GRDP and the GRDP per capita are expected to grow in proportion to GDP growth. Although the data for the GRDP is not available at present, it is expected that the GRDP of Vientiane will grow faster than the national average as seen in previous trends.

**Table 25-1      Projection of Gross Domestic Product at 2001 Constant Prices**

Item	2001	2005	2010	2015	2020
I. National Account					
1. GDP (Billion Kip)	15,670	20,550	29,221	42,158	61,690
(1) Agriculture	7,975	9,510	11,851	14,769	18,404
(2) Industry	3,673	5,476	9,022	14,863	24,486
(3) Services	3,883	5,382	8,093	12,168	18,297
(4) Import Duties	139	182	255	358	502
2. GDP per Capita					
(1) In Kip (1000)	2,914	3,474	4,327	5,480	7,060
(2) In US\$ *1	329	392	488	618	796
3. Population (1000)	5,377	5,916	6,752	7,694	8,738
II. Growth Rate					
1. GDP	5.7	7.0	7.3	7.6	7.9
(1) Agriculture	3.8	4.5	4.5	4.5	4.5
(2) Industry	9.7	10.5	10.5	10.5	10.5
(3) Services	5.7	8.5	8.5	8.5	8.5
(4) Import Duties	15.8	7.0	7.0	7.0	7.0
2. GDP per Capita	2.8	4.5	4.5	4.8	5.2

Source: National Development Plan 2001-2020 and 2001-2005, CPC

Note: \*1 Foreign Exchange Rate in 2001 was 8,871 kip/US\$.

#### **2.5.4      Related On-going Projects**

The related on-going projects are shown on Table 25-2. These projects are listed up from water supply sector.

**Table 25-2      Related On-going Projects in Water Supply Sector**

Project Name	Donor	Duration	Responsible Agency in Lao PDR	Finance	Scope
Implementation of National Water Tariff Policy and Development of Water Supply Management Models	Public-Private Infrastructure Advisory Facility (PPIAF), World Bank	Nov. 2002 – Dec. 2003	WASA	197,500 US\$ Grant	Development and implementation of National Water Tariff Policy and Development of Water Supply Management Models
Capacity Building for the Water supply sector Project	NORAD (Norway)	Sep. 2000 – Aug. 2004	DHUP, MCTPC	10,000,000 Nok (Grant) 60,000,000 Kip (Lao PDR)	For phase I and phase II. Institutional development on the Human resource development, Regulation development, Water tariff policy. Human resource development for training WASA staff in project administration, technology application, for phase I towns ( 5 districts ) and phase II towns ( 7 districts ). <b>Phase I for 5 districts include:</b> Tonpheung district, Boegeo province Nam Bak district, Louangphrabang province Boun Neua district, Phongsaly province Outhoumphone district, Savannakhet province Nongbok district, Khammuan province <b>Phase II for 7 small towns:</b> Samakhixay district, Attapeu province Paklay district, Xayaboury province Phonthong district, Champasack province Muang Kham district, Xiengkhouang province Khong Sedone district, Saravanh province Viengxay district, Houaphan province Km52 district, Vientiane province
Water Supply and Sanitation Sector Project	ADB	Oct. 2000 – Jun. 2006	DHUP, MCTPC	25 million US\$, Loan	Developing the water supply and sanitation system all the over the Lao PDR, targeting 60% service ratio in city area. Phase I for 5 small towns and phase II for 7 small towns <b>Phase I for 5 small towns:</b>

					<p>Tonpheung district, Boekeo province  Nam Bak district, Louangphrabang province  Boun Neua district, Phongsaly province  Outhoumphone district, Savannakhet province  Nongbok district, Khammuan province  <b>Phase II for 7 small towns:</b>  Samakhixay district, Attapeu province  Paklay district, Xayaboury province  Phonthong district, Champasack province  Muang Kham district, Xiengkhouang province  Khong Sedone district, Saravanh province  Viengxay district, Houaphan province  Km52 district, Vientiane province  Detailed design for Water treatment Plant Facilities,  Planning for feasibility Studies, Detailed design and Construction  Supervision.  Human Resource Development, regulation development, tariff  policy in the WASA Organisation.  Human Resource Development for training WASA staff in project  administration, technology application, for phase I towns (5  districts) and phase II towns (7 districts).</p>
Project D'extensio des re'seaux d'adductio d'eau potable de la prefecture de Vientiane	AFD	Dec. 2000 – Feb. 2004	NPVC	6 million Euro, Loan, 500,000 Euro, Lao PDR	<p>Construction 2 new reservoirs: ground reservoir 1000 m3,  Elevated reservoir 1000 m3.  New house connection 3500 units in 5 zones:  1. Sikhai-Naxaythong  2. Dongdok  3. Xamkhe  4. Sisatanak  5. Phontong  Planning for feasibility study for Master plan of distribution  network in Vientiane</p>
Etude de faisabilite d'un project de formation dans	AFD	Sep. 2003 – Jun. 2006	DCTPC	2.7 million Euro, Grant, 220,000 Euro, Lao PDR	<p>Detail design and construction of facilities for training centre  including dormitory in Vientiane.  Technical cooperation on the development the water supply and  sanitation system all over the Lao country for water supply</p>

le secteur de l'eau et l'assainissement					companies. Institutional development for technology development in Training Centre of Vientiane Water Supply Organisation. Human resource development for the Training Centre for Vientiane Water Supply and other province in project administration, technology application.
Strengthening of National Strategies in Water and Sanitation Laos, LAO/00/003 Project	Belgian Technical Cooperation	Apr. 1999 – Jun. 2005	DCTPC	3.1 million Euro, Loan, 446,000 Euro, Lao PDR	Strengthen National Capacity through capacity building Urban Water Supply Accessibility Rural Water Supply Accessibility.  Planning detail design and construction of facilities of the water supply System for water treatment plant facilities for ChamPhone District in Savannakhet province and for Louangam District in Saravanh province. Technical cooperation on the development the Water supply sanitation system in Savannakhet and Saravan province. Human resource development for training the Water supply company of ChamPhone district and Louangam district in project administration, Technology. In particular in Thapangthon district, Savannakhet And Taoy district, Saravanh province for supplying the Rural water supply. In particular in Sanouy district, Saravanh province For supplying the borehole wells.
Project for Environmental Health and Water Supply	Swedish International Development Assistance (SIDA)	Sep. 2000 – Sep. 2004	National Centre for Environmental Health and Water Supply, Ministry of Health	1.0 million US\$, Grant	To improve sector management, coordination. To revise Sector Strategy which reflects current sector requirements. Gender consideration actively promote at all levels of water and sanitation planning, provision and management. Water quality is maintained at acceptable standards. Increase efficiency of Nam Saat (Rural water supply). Improve access, use and sustainability of water and sanitation facilities. Improve construction quality of existing water and sanitation facilities. Improve affordability, quality and quantity of new water and sanitation facilities. Improve community participation. Management and maintenance of

					<p>water and sanitation facilities.          Improve environmental education and conditions in selected remote rural villages and schools.          Protect raw water resources and water shed management.          Improve guidelines for drinking water and support monitoring of national drinking water standard.</p> <p><b>Project Area</b></p> <ol style="list-style-type: none"> <li>1) Boekeo Province</li> <li>2) Xayabury Province</li> <li>3) Houaphan Province</li> <li>4) Khammuan Province</li> <li>5) Sekong Province</li> <li>6) Saravanh Province</li> <li>7) Savannaket Province</li> <li>8) Borikhamsay Province</li> </ol> <p>Construction of facilities on the rural water supply system in 8 provinces above.          Institutional development on the human resource Development in 8 provinces above for the maintenance in the environmental health and rural water supply system.          Human resource development for training the technical staff in 8 provinces above on the computer use.</p>
Project for Environmental Health and Water Supply	UNICEF	1990 – 2003	National Centre for Environmental Health and Water Supply, Ministry of Health	0.8 million US\$, Grant	<p>Institutional development for providing the rural water supply system, Borehole well and wells testing drilling in each village.          Human resource development for training the technical staff and awareness for the maintenance and using the rural water supply and borehole well.          Supply materials on the pipes, Machines for drilling the borehole well and the accessories also.</p>
Project for Environmental Health and Water Supply	World Bank	2003 – 2004	National Centre for Environmental Health and Water Supply, Ministry of	1.0 million US\$, Grant	<p>Institutional development for providing the rural water supply system, borehole well and sanitation for 3 provinces.          Human resource development for training the technical staff and awareness on the maintenance and using the rural water supply,</p>

			Health		<p>Borehole well and sanitation in 3 provinces.          Advertisement on the maintenance of environmental health and water supply and sanitation such as newspaper, Radio, Flipchart.          Advertisement as manual.</p> <ol style="list-style-type: none"> <li>1) Oudomxay Province</li> <li>2) Louangprabang Province</li> <li>3) Phongsaly Province</li> </ol>
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