

**The Socialist Republic of Vietnam**

**Haiphong Peoples Committee**

**The Republic of Finland**

**Ministry for Foreign Affairs  
Department for International  
Development Cooperation**

# **Haiphong Water Supply and Sanitation Programme, Phase IV**

## **Volume II**

**Sub-project Technical Assistance,  
Training and Studies**

LIBRARY IRC  
PO Box 93190, 2509 AD THE HAGUE  
Tel.: +31 70 30 689 80  
Fax: +31 70 35 899 64  
BARCODE: 16289  
LO: 822 VNHA 00

**Final Draft: 11. February, 2000**



## **IRC International Water and Sanitation Centre**

Access to water and sanitation are basic human rights. IRC's mission is to help people in developing countries to get the best water and sanitation services they can afford. Working with partners in developing countries, we aim to strengthen local capacities by sharing information and experience and developing resource centres. We emphasize the introduction of communication, gender, participation, community management and affordable technologies into water and sanitation programmes.

IRC's work focuses on the needs of developing countries in Africa, Asia and Latin America. In each region we work with partner institutions in selected countries to develop new approaches, ranging from empowering communities to make informed choices, to helping governments facilitate the process of development rather than construct and supply systems.

In a process of joint learning, local capacities are built in subject areas linked to those areas of IRC's expertise for which there is a local demand. Partner organizations receive support in the development of skills related to documentation and information, publication, research, training, advisory services and advocacy.

IRC is an independent, non-profit organization supported by and linked with the Netherlands Government, the United Nations Development Programme (UNDP), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the World Bank and the Water Supply and Sanitation Collaborative Council.

IRC International Water and Sanitation Centre  
P.O.Box 2869  
2601 CW, Delft  
The Netherlands  
Tel. +31 (0)15 2192939  
Fax +31 (0)15 2190955  
E-mail: [general@irc.nl](mailto:general@irc.nl)  
Website: [www.irc.nl](http://www.irc.nl)

# Haiphong Water Supply and Sanitation Programme, Phase IV

(VOLUME I  
Programme Phase IV Outline Document)

## Table of contents

### VOLUME II Sub-project Technical Assistance, Training and Studies

	<b>Table of Contents</b>	<b>1</b>
	<b>List of Abbreviations</b>	<b>3</b>
<b>1</b>	<b>Summary</b> .....	<b>5</b>
<b>2</b>	<b>Background</b> .....	<b>8</b>
2.1	Sector policy .....	8
2.2	Present situation in Haiphong .....	8
2.3	Beneficiaries and parties involved .....	8
2.3.1	Beneficiaries .....	8
2.3.2	Parties involved .....	9
2.4	Problems to be addressed .....	10
	Problems .....	10
	Underlying reasons .....	12
2.5	Other interventions .....	13
2.6	Documentation available and used	14
<b>3</b>	<b>Overall objectives</b> .....	<b>15</b>
3.1	Overall objectives .....	15
3.2	Programme purpose .....	15
3.3	Subproject purpose .....	15
3.4	Programme strategy .....	15
3.5	Sub-project strategy .....	17
3.6	Results .....	17
3.6.1	Strengthened management of SADCO .....	17
3.6.2	Strengthened management of Haiphong WSCO .....	18
3.6.3	Strengthened management of Haiphong URENCO .....	18
3.6.4	Improved financing administration of SADCO, WSCO, and URENCO	19
3.6.5	Improved financing structure of the three companies .....	19
3.6.6	Operation and maintenance procedures of SADCO, WSCO, and URENCO	19
3.7	Activities .....	21
3.7.1	Strengthening of management of SADCO .....	21
3.7.2	Strengthening of management of WSCO .....	21
3.7.3	Strengthening of management of URENCO .....	22
3.7.4	Strengthening of financial administration of SADCO, WSCO, and URENCO	22
3.7.5	Improving financial structure of the three companies .....	22
3.7.6	Developing the O&M procedures for the three companies	22

<b>4</b>	<b>Assumptions and risks .....</b>	<b>24</b>
4.1	Assumptions .....	24
4.2	Risks .....	24
<b>5</b>	<b>Implementation .....</b>	<b>26</b>
5.1	Physical and non-physical means .....	26
5.1.1	Non-physical inputs .....	26
5.1.2	Physical inputs .....	27
5.2	Organisation and implementation procedures .....	27
5.2.1	Organisational arrangement .....	27
5.2.2	Implementation practices .....	28
	Readiness of companies to receive TA .....	28
	Twinning .....	28
	“Vietnamisation” .....	29
	TA to other city organisations.....	29
	Removal of solid waste .....	30
5.3	Timetable .....	30
5.4	Cost estimate and financing plan .....	30
<b>6</b>	<b>Factors ensuring sustainability .....</b>	<b>32</b>
6.1	Policy support measures.....	32
6.2	Appropriate technology.....	32
6.3	Environmental protection.....	32
6.4	Socio-cultural aspects from gender perspective.....	32
6.5	Institutional and management capacity.....	32
6.6	Economic and financial analysis.....	33
6.7	Ownership.....	34
<b>7</b>	<b>Monitoring and evaluation .....</b>	
7.1	Monitoring indicators .....	36
7.2	Reviews and evaluations .....	36

*(VOLUME III*

*Sub-project Financing Support to Households)*

*(VOLUME IV*

*Sub-project Construction Management Support)*

*(VOLUME V*

*Annexes and abbreviations)*

## Abbreviations and Acronyms

B	- billion
CA	- Construction management adviser
CMA	- Corporate management adviser
CPA	- Community participation adviser
DIDC	- Department for International Development Cooperation (formerly FINNIDA)
DOSTE	- Department of Science, Technology and Environment
DPI	- Department of Planning and Investment
ESA	- External Support Agency
FMA	- Financial management adviser
FIM	- Finnish markka
GIS	- Geographic information system
GOF	- Government of Finland
GOV	- Government of Vietnam
GPS	- Global positioning system
HH	- Household
HP	- Haiphong
HPPC	- Haiphong People's Committee
HPWSSP	- Haiphong water supply and sanitation programme
HRD	- Human resources development
IDA	- International Development Association
JFG	- Japanese Government Fund
JICA	- Japan International Cooperation Agency
M	- Million
MEIP	- Metropolitan Environmental Improvement Program (of WB)
MIS	- Management information system
MOC	- Ministry of Construction of Vietnam
MOSTE	- Ministry of Science, Technology and Environment of Vietnam
MMI	- Ministry of Mines and Industry of Vietnam
MOWR	- Ministry of Water Resources of Vietnam
MPI	- Ministry of Planning and Investments of Vietnam
MSW	- Municipal Solid Waste
NA	- Network Adviser
NGO	- Non-governmental Organisation
NWR	- Non-revenue water / unaccounted for water
O&M	- Operation and Maintenance
PD	- Project document
Phuong	- City ward (size varies; approximately 2,200 households, or about 10,000 people, on average in the 1B Project <i>phuong</i> s)
PMU	- Project Management Unit (of Haiphong SADCO, unless specified otherwise)
PSE	- Public Service Enterprises

RF	- Revolving Fund
SADCO	- Haiphong Sewerage and Drainage Company Company (of Haiphong, unless specified otherwise)
SANDEC	- Department of Sanitation for Developing Countries, Swiss Federal Institute for Environmental Science & Technology
UNDP	- United Nations Development Programme
USD	- United States Dollar
TA	- Technical assistance
To	- Sub-division of a <i>phuong</i> , typically around 20 households
TOR	- Terms of Reference
TUPWS	- Haiphong Transport and Urban Public Works Services
URENCO	- Haiphong Urban Environment Company
VND	- Vietnamese Dong
WB	- the World Bank
WSCO	- Water Supply Company (of Haiphong, unless specified otherwise)
WU	- Womens Union
WWA	- Watyer works adviser
1B Project	Haiphong component of the World Bank-assisted Three Cities Sanitation Project
Contract A	1B Project contract for cleaning and evaluating the sewerage and drainage system in Haiphong
Contract B	1B Project contract for rehabilitating and extending the sewerage and drainage system in Haiphong

# 1. Summary

A reference is made to the Volume I of the Project Document for Phase IV for background information

This document is a part of the Project Document for the HPWSSP, Phase IV covering years 2000 to 2004. The sub-project, discussed in this VOLUME II, Technical Assistance, Training and Studies is directed to the three PSEs of the city. Their geographic area of responsibility forms the boundaries of this Sub-project.

**The two other sub-projects are both discussed in separate volumes of the PHWSSP, Phase IV Project Document.** The five volumes are:

Volume I: Programme Phase IV outline Document

**Volume II: Sub-project Technical Assistance, Training and Studies**

Volume III: Sub-project Financing Support to Households

Volume IV: Construction Management Support

Volume V: Annexes and Abbreviations

All three sub-projects are functionally separate entities, which can be contractually regarded as separate projects inside the Programme, if so decided.

The ultimate beneficiaries of this Sub-project are the people of Haiphong, whose supply of water and waste water collection and drainage will improve, and their environment will become better due to improvements in solid waste management. The people will also, through their participation in the planning and implementation of these improvements, gain advocacy skills and become more effective in ensuring that sustainable and affordable services are provided to the truly needy.

The immediate beneficiaries of this Sub-project will be SADC, WSCO and URENCO, which through the Programme will receive support and technical assistance in improving their management practices. Besides improving their current operations, this support will also help them better to plan for future expansion, and to attract and effectively utilise investment funds.

The previous support and development needs in Haiphong states the targets of the programme and puts focus on management particularly on SADC. There are also clear indications that SADC has increased its openness and readiness to achieve the support. Also demand for sanitation improvements by consumers, including their willingness to pay has been increasing.



Final Draft Volume II, 11 February, 2000

The overall objective of the Programme is:

***Good water supply, sewerage and drainage, and sanitation service for the people and customers in Haiphong as well as improved quality of the environment.***

The purpose of the Programme is

***Improved performance of the water supply, sewerage and drainage, and sanitation organisations towards well functioning and financially self-sustaining public enterprises***

The purpose of this Sub-project is the same as that of the whole Programme, which is natural as this Sub-project is the core of the Programme continuum:

***Improved performance of the water supply, sewerage and drainage, and sanitation organisations towards well functioning and financially self-sustaining public enterprises***

This purpose is fully consistent with, and supports, the National policies for urban water supply and urban wastewater collection and sanitation.

The programme has been divided into a sequence of phases so that it may be readily adjusted to reflect variations in the pace and pattern of institutional development, emerging needs, and priority areas in each of the three sub-sectors. This document discusses Sub-project Technical Assistance, Training and Studies of phase IV of the programme.

The results expected from this Sub-project are:

- Strengthened management of SADCO, WSCO and URENCO
- Improved financial administration of SADCO, WSCO and URENCO
- Improved financing structure of SADCO, WSCO and URENCO
- Improved operation and maintenance procedures of SADCO, WSCO and URENCO

There are a number of assumptions and risks. They are presented in chapter 4.

The support will be mainly technical assistance. Long term advisers will be provided in the fields of management, institutional and managerial development as well as in construction supervision. Training will be provided as a part of technical assistance. The details of the physical and non-physical inputs will be defined in the annual Work Plans and agreed on Supervisory Board meeting.

The technical assistance team will consist of relatively few, mainly long-term advisers, with broad expertise who can move between companies as needs and opportunities arise, and who can develop good personal relationships with their counterparts. Short-term specialist advisers will be required to assist with particular issues.

Given the core team approach described above, and the need to review TA allocations on a regular basis, it would not be appropriate for the Programme to be subdivided into three sub-modules; each allocated to one of the companies. Instead, the programme should be located within TUPWS. This appears to have several advantages

- ◆ TUPWS is the parent organisation for each of the three companies
- ◆ TUPWS can be impartial about the allocation of resources
- ◆ TUPWS is best placed to take appropriate remedial action if any company is unable to make good use of TA because it is deprived of operational funds, cannot create and fill the necessary staff positions, or is having difficulty in receiving approval for the necessary administrative reforms.

The estimated foreign component costs, covered by the Government of Finland, are summarised as follows:

		FIM in millions
<i>Technical assistance:</i>	<i>SADCO</i>	<i>14.350</i>
WSCO	7.000	
URENCO	4.500	
Pooled support**	4.600	
Total for Sub-project TA, T & S		30.450

\*\* "Pooled support" includes training, computers, minor expenditures, and contingency allowances, which will be allocated as needed.

The local component costs estimate is presented in Volume I. It comprises the costs of the local staff, office accommodation, housing of expatriates and the costs of investments.

## **2. Background**

### **2.1 Sector policy**

A reference is made to the Volume I of the Project Document for Phase IV for background information

The developments in political, social and economic life, which started already during the latter half of the 1980's, have continued steadily. The "Doi Moi", renovation has marked a new period in the development of the country. The transfer from a socialist centrally led economy to a market oriented one is continuing. However, difficulties are met and the speed of the transition appears slower than expected. This applies especially to the public service provision. The necessary independent decision making inside the "public-private-enterprises" still meet political interference and lack of authorisation.

In relation to the water supply and sanitation the present policy is based on the "National Urban Water Supply Strategy". It stipulates that the long-term objective is to establish provincial water supply companies as autonomous, self-sufficient undertakings. The same principle applies also to the sewerage and solid waste management. It is based on the "National Urban Waste Water Collection and Sanitation Strategy". It includes also the principle: "polluter pays" which means *gradual cost recovery*.

### **2.2 Present situation in Haiphong.**

A reference is made to the Volume I of the Project Document for Phase IV for background information on the present situation in Haiphong.

### **2.3. Beneficiaries and parties involved**

#### **2.3.1 Beneficiaries**

The ultimate beneficiaries of the Programme are the people of Haiphong, whose supply of water and waste water collection and drainage will improve, and their environment will become better due to improvements in solid waste management. The people will also, through their participation in the planning and implementation of these improvements, gain advocacy skills and become more effective in ensuring that sustainable and affordable services are provided to the truly needy.

The immediate beneficiaries of Programme will be SADCO, WSCO and URENCO, which through the Programme will receive support and technical assistance in improving their management practices. Besides improving their current operations, this support will also help them to better plan for future expansion, and to attract and effectively utilise investment funds.

Other beneficiaries will be a number of municipal organisations that provide services needed by the Programme.

Finally, the private sector companies and entrepreneurs will benefit through increased emphasis on outsourcing of the provision of goods and services, in particular SADC's use of the private sector for septic tank construction, sewer maintenance, and septic tank emptying.

### **2.3.2. Parties involved**

The HPWSSP has during its three first phases been focusing on the WSCO. The focus of the Programme will be shifted to SADC because of its incoming large investment project, which requires capacity that has not been possible for SADC to develop. Reason for this is the inadequate funding base for investments and sufficient O&M. Continued support to WSCO is needed in order to safeguard the sustainability of achievements hereto, and to meet the needs of the started 1A investment project. Support to URENCO is needed as a functioning solid waste management is essential in achieving the improvements in drainage..

As public service enterprises the three companies need to have maximum independence. As utilities they, however, will be controlled by HPPC and TUPWS assisted by other public institutions. These include:

The Construction Service, which is the principal organisation in the construction sector. Through its Planning and Design Institute, it is responsible for physical planning in the city;

The Investment and Development Service, which controls the level of tariffs and charges for public utility services, supervises the fixed assets, and also supervises the application of local and central government funds for investments;

The Science, Technology & Environment Service, which is responsible for encouraging and approving the application of new technologies in public sector projects and for ensuring that they have no adverse environmental effects;

The Foreign Economic Relation Service, which assists all projects receiving foreign support by arranging necessary clearances, etc.;

The Haiphong Hygiene & Epidemiology Institute, which monitors the quality of water in rivers and ponds from the point of view of public health, and the quality of drinking water; and

The Haiphong Labour & Social Affairs Service, which administers the retirement system for the public sector.

In addition, WSCO, SADC and URENCO rely on the City Finance Office / Financial service, which receives and disburses all funds and revenues related to the city's

operations. Information on the companies' activities are routinely supplied to the Statistical Service.

A number other central government organisations have considerable authority over water supply developments. The three most important from the perspective of the Programme are:

The Ministry of Planning and Investments (MPI), which is responsible for long and short term planning at the national level. MPI plays a major role in setting economic priorities and in directing investments, including managing overseas aid.

The Ministry of Construction (MOC), which is responsible for a number of major infrastructure sectors, including urban water supply, sewerage, storm water drainage, sanitation and solid waste management. It sets technical norms and standards, and approves technical feasibility studies for major projects. It also supervises the implementation of such projects.

The Ministry of Science, Technology and Environment (MOSTE) assists the Government in the strategies and policy-planning matters related to science, technology and environment.

## **2.4. Problems to be addressed**

### ***Problems***

A number of improvements, physical and non-physical, have taken place during the implementation of the HPWSSP. The work, however, is not nearly done, and probably will never be a task-completed-and-never-in-need-of attention. Over time the degree of external support will decrease, and before that the relative importance of individual problems to be addressed will vary. The basic nature of problems has not necessarily been changing, but the environment in which they are addressed has changed. Because of this the problem analysis in this document has been based on the work carried out during the previous project preparation cycles, besides the preparation mission's own observations as well as discussions with the parties concerned. The present-day problems to be addressed may be presented as follows:

- (a) **SADCO and URENCO lack the experience needed to manage large-scale operations and investments.** Because of continuously inadequate funding and other resources SADCO and URENCO have not been able to gather experience to manage operations exceeding every-day emergency measures.
- (b) **Customer service is inadequate.** Many parts of the water distribution network are old and breakdowns occur frequently. Repairs take too long. Haiphong is also growing rapidly and the demand for new customer connections is large, but the time to get a new connection processed and installed can be several months. The sewer/drainage network is not cleaned and kept in good operating condition. The

collection of solid waste is incomplete, and the final disposal process is unsatisfactory.

- (c) **Co-operation between the three companies is inadequate.** Lack of mutual flow of information and not sharing the common tasks cause duplication of efforts and inefficiency in the use of resources.
- (d) **Surface water and canals in the city are polluted.** Untreated sewage is discharged directly or through overflows to canals, open surface watercourses and coastal waters in or adjacent to the city.
- (e) **Flooding of living areas cause health hazards.** The poorly functioning combined sewer system results in frequent flooding during the rainy season. The flood water mixed with raw sewage can easily enter underground water storage tanks and inundates houses, causing serious health problems, very unsatisfactory living conditions, and a decrease of property value.
- (f) **Unclean environment in the city.** Not all the solid waste is properly collected and disposed of in the city. Much of it is dumped in open areas, canals, gutters, culverts and manholes, causing general uncleanness and clogging of canals and drainage systems, as well as pollution of the ground floor space through flood waters and the debris carried by the water.
- (g) **The people are not aware of the importance of proper environmental sanitation.** Septic tanks are not emptied regularly and discharge effluent which is more or less untreated, food wastes are traditionally emptied onto the sidewalks and into roadside gutters, and mixed solid waste are dumped onto any available nearby areas. This irresponsible behaviour pollutes the environment, threatens people's health, and hampers the functioning of the drainage system.
- (h) **Many households cannot afford the full cost of septic tank construction and connection to the sewer network.** In the poorest segment of society the cost of constructing a septic tank and of connecting it to the tertiary sewer is too much for the household to afford, even if a soft loan is offered for the investment.
- (i) **Inadequate amounts of water, with too low pressures, reach customers in non-improved areas.** Although water production per capita is about 300 litres per day, only part of it reaches the customers; on average, unaccounted-for water is around 40 per cent of production. In improved areas the unaccounted-for water is around 25 per cent, but in the most problematic areas it is over 80 per cent. This problem is most acute in the areas that are served by the "old" network, where leaks and intermittent supply are still too common. (The 1A Project, now commencing, will, however, gradually reduce this problem.)
- (j) **Water quality is not satisfactory.** Leaking pipelines, low pressures and intermittent supply also contribute to unsatisfactory water quality at the point of consumption. However, treated water quality in improved areas fulfils the Vietnamese and WHO drinking water recommended standards. -

The reasons for the above shortcomings are economical, institutional, managerial and technical. Since the World Bank has started to support physical improvement of the water supply system through the 1A Project, and intends to start to support physical improvement of the sewerage system through the 1B Project, in Phase IV the HPWSSP will focus on institutional and managerial aspects. Since WSCO has been the focal point

of the Programme's support during Phases I - III, and SADC has not yet received sufficient support to operate effectively, the emphasis now has to be shifted to supporting SADC. However, it is vital to continue the support to URENCO and WSCO, since without this it will not be possible to achieve the desired results.

### ***Underlying reasons***

Underlying these problems are a number of factors which together create an environment where there is little incentive to improve organisational performance, and where it is too easy for staff to lose motivation. This, because the resources available are too small, the scope for innovation is limited, and the rewards for extraordinary effort are minimal. These factors are inter-linked; they need to be addressed simultaneously if the situation is to improve. Some of them, for example, inadequate investment funding, will be largely resolved by the 1A and 1B Projects, but there is a risk that unless the others are also solved the investments will not be properly operated and maintained and will be of limited long-term value. Some of the problems, for example inadequate tariffs and O&M funds, can only be resolved through action by HPPC. Throughout Phase IV the HPWSSP will work with the companies to identify the underlying causes of their problems, develop solutions, and identify the actors who need to be involved in order to put the solutions into effect. Some of these underlying causes are the following:

1. **Inappropriate policies.** Despite the conversion to public service enterprises (PSEs) there still are some remaining problems during this transitional period that make it difficult for SADC, WSCO or URENCO to become self-sustaining. Their limited autonomy in key areas such as tariffs, staffing and salaries limits their ability and incentive to operate as efficiently as possible (at the same time it must be admitted that the companies, with the possible exception of WSCO, may not yet be in a position to operate satisfactorily on a fully autonomous basis
2. **Poor organisational performance.** Many of the problems mentioned above are attributable to poor organisational performance by the companies. The main causes for this are considered to be low salaries, overstaffing and obsolete vacancies, weak skills and poor motivation of many of the personnel, and corporate philosophies which are still old-fashioned (for example, a production orientation instead of a service orientation, and a lack of delegation of powers). These lead to inefficient use of time of the management and lack of motivation of the staff.
3. **Insufficient financing.** The immediate shortage of investment funding is going to be at least partially solved by 1A and 1B Projects (although neither of these includes any resources for URENCO). However, this will not solve the problem of insufficient revenues for SADC and URENCO to cover the cost of proper O&M, which is due too low or non-existing fees and tariffs. While cost recovery for these two services will be introduced gradually, for a considerable period the two companies will remain dependent on funds from general city revenues, and this is likely to lead to further deferred maintenance and jeopardise the sustainability of the newly-rehabilitated systems.
4. **Poor and undersized sewerage and drainage system.** The 1B Project is only a first step in correcting the effects of a long period of deferred maintenance. It will only provide full rehabilitation (including the tertiary system) in about one quarter

of the urban phuongs (10 out of 37). Most of the sewer network is very old and in poor condition due to the inadequate maintenance and repair, and has insufficient capacity to drain the storm runoff in the rainy season. Even after the 1B Project is completed, SADCO will still have a massive task to complete rehabilitation in the other phuongs and to extend the system to other areas of the growing city, while at the same time trying to keep the systems rehabilitated under 1B in good working order.

5. **Poor solid waste management.** As noted above, only about 70 % of the solid waste produced each day is collected. The rest is dumped without control into canals, drains, gutters and manholes. There is also little control of handling of industrial and hazardous waste (including medical wastes). The limited resources of HPWSSP, and the concentration of inputs first on WSCO and later on SADCO, have left URENCO as a weak organisation, without the ability to attract investment funding from external sources (it was omitted from both the 1A and, later, the 1B Project). Unless additional technical assistance resources can be mobilised, URENCO may remain as the weak link in the urban environmental services sector, with uncollected wastes threatening public health and the proper operation of the sewerage and drainage network, and with improper operation of the Trang Cat landfill posing an environmental hazard. In addition to these responsibilities, URENCO is charged with maintaining the bucket latrine system and with the provision of communal toilet facilities. It would seem better to transfer these responsibilities to SADCO, which should be better placed to plan and implement the conversion programme (in parallel with its septic tank program) and to ensure that communal facilities are properly maintained (which is certainly not the case at present).
6. **Poor condition of the water distribution network in non-improved areas, and high unaccounted-for water.** Although treated water production capacity is now nearly adequate, at least for the immediate future, there are still interruptions in water supply in the areas served by the "old" network. Because of numerous leaks and frequent breakdowns the proportion of non-revenue water is still too high in these areas. Given the poor condition of the sewer network, any intermittent water supply system may be subject to contamination and become a health hazard, if sewage infiltrates into the distribution pipes. The overriding concern of the Programme, to improve people's health and living conditions, is therefore put at risk. Until such time as the entire network can be rehabilitated, through the 1A Project and other activities, this problem will persist. The high levels of non-revenue water also hamper WSCO's efforts to become self-sustaining, and increase the need to raise the water fee to unaffordable levels if WSCO is to become independent of city subsidies.

## 2.5. Other interventions

Although the Government of Finland has been the main long-term supporter of the development efforts of the three Public Service Enterprises (PSEs), and of general capacity building of the water supply and sanitation sector in Haiphong, other donors have been and are active.



The **World Bank** and the government of Vietnam have agreed on an IDA credit to improve water supply services through an investment to rehabilitate and expand water supply services in four urban centres, including Haiphong (the “1A Project”). Another IDA credit is about to become effective: “The three cities sanitation project”, which includes Haiphong (the “1B Project”). The Haiphong Water Supply and Sanitation Programme, supported by the Government of Finland has provided technical assistance, at the request of the Government of Vietnam, to the development of both of these WB/IDA projects.

The **Japan International Co-operation Agency (JICA)** is currently negotiating a project to prepare a Sewerage, Drainage and Solid Waste Management Master Plan for Haiphong until the year 2020.

The **World Bank** is currently working on a Metropolitan Environmental Improvement Program (MEIP) proposal for Haiphong, and will shortly establish a local office. This project will:

1. Assist the Haiphong Peoples Committee and DOSTE to gather data for an environmental status report that will form the basis of an environmental strategy;
2. Subsequently, the key identified environmental issues will guide MEIP environmental action plans for strategic urban environment management through short-term, cross-sectoral plans;
3. These action plans will clarify the critical issues, involve key stakeholders, outline institutional development needs and build political commitment;
4. With this framework in place, MEIP will implement pilot environmental activities.

**UNDP** has started a local government improvement project, which will improve the urban management of Haiphong. It will concentrate on streamlining administrative procedures and support co-operation between the various urban management sectors of Haiphong. The implementation of this project has started in October, 1999.

There may still be other interventions under preparation, unknown to the formulation mission. Therefore it is requested that, during the commenting phase of this draft document, the parties concerned would bring any such projects to the attention of the formulation mission.

## **2.6. Documentation available and used**

The documentation made available and used by the PD preparation team are listed in VOLUME V, ANNEX 1.

### **3. Intervention**

The intervention logic of the phase IV of the Programme is presented in VOLUME V, ANNEX 2.

#### **3.1. Overall objective**

The overall objective of the Programme is:

***To achieve good water supply and sanitation service for the people and customers in Haiphong and an improved quality of the environment.***

The objective is in line with the development objectives stated in the “Socio-Economic Stabilisation and Development Strategy to the year 2000” adopted by the Seventh National Congress of the Communist Party in June 1991. It also supports the development objective of the “Urban Waste Water Collection and Sanitation Policy” which aims at “...provision of sewerage and drainage with good service level in an economically and environmentally sustainable way”.

#### **3.2. Programme purpose**

The purpose of the Programme is

***Improved performance of the water supply, sewerage and drainage, and sanitation organisations towards well functioning and financially self-sustaining public enterprises***

This purpose is fully consistent with, and supports, the National policies for urban water supply and urban wastewater collection and sanitation.

#### **3.3. Sub-project purpose**

The purpose of this Sub-project is the same as that of the whole Programme, which is natural as this Sub-project is the core of the Programme continuum:

***Improved performance of the water supply, sewerage and drainage, and sanitation organisations towards well functioning and financially self-sustaining public enterprises***

This purpose is fully consistent with, and supports, the National policies for urban water supply and urban wastewater collection and sanitation. However, at this stage this Sub-project needs two other sub-projects to support its endeavour. They are: Financing

Support to Households and Construction Management Support. They are discussed in volumes III and IV.

### **3.4. Programme strategy**

In this document Phase IV of the Programme is called the Project. It consists of three sub-projects: Technical Assistance (TA), Financing Support to the Households (FS) and Construction Management of the investment project of the WB/IDA project 1B (CMS). *These sub-projects are functionally separate entities, which can be contractually regarded as separate projects inside the Programme, if so decided.*

The general strategy for achieving the above Sub-project purpose is to improve the operational efficiency and the management capabilities of the companies responsible for the service delivery. This will be done through improvement of the management systems and procedures, advisory support to the management, and through training. The implementation arrangements and the project organisation supports this general strategy.

The programme is directed to the three PSEs of the city. Their geographic area of responsibility forms the boundaries of the Sub-project.

During the Project (HPWSSP Phase IV), the emphasis of the intervention will be on the sanitation sub-sector, in particular on wastewater collection and drainage. The approach and strategy will both support and get support from the parallel World Bank/IDA financed 1B Project. 1B Project will improve and rehabilitate the wastewater infrastructure, thus enabling SADC0 to extend its services and to improve the service level. Technical assistance to SADC0, which is also a component of the 1B Project, is included in the Programme and forms an integral part of it.

Technical assistance to WSCO will continue, however, at a smaller scale than before. Focus will be on strengthening the company's management capacity and financial position: developing a corporate strategy and business plan, improving accounting and revenue collection, reducing unaccounted-for water, and capacity-building. Less emphasis will be placed on technical matters as WSCO has already considerable experience in the physical aspects of system rehabilitation and upgrading, and construction management due to 1A Project. A greater attention will be given to use of Vietnamese consultants and on outsourcing.

Support to the Haiphong Urban Environment Company consists of improvement required in the process to become a self sustaining public service enterprise (PSE). Expatriate advisors sharing their time with the other companies will give the assistance.

The support will be provided in five forms:

- Studies, which will study the issues and propose systems and procedures for implementation;
- Technical assistance which will provide long term support to the

- management and will assist in the implementation of the proposed systems and the expected externally funded large scale investment programme;
- Training to respond to the identified priority training needs; and
- Equipment and materials.

### **3.5. Sub-project strategy**

The strategy of the sub-project Technical Assistance, Training and Studies is the same as that of the whole Programme. This is natural, as this sub-project is the core function of the whole Programme continuum.

### **3.6. Results**

The expected verifiable results of the sub-project A, Technical Assistance, Training and Studies are outlined below.

#### **3.6.1. Strengthened management of SADCO**

The key result of this is that the top management of the SADCO has the human and physical resources necessary for efficient and successful management of the company. This includes the management of the very large investment programme, the 1B Project, expected to start shortly. The objectively verifiable indicators are:

1. An effective corporate management team has been created, with clearly understood individual responsibilities and with delegation of powers to the appropriate levels;
2. Top- and medium-level managers and other key staff make decisions promptly and rationally;
3. Company medium-term strategy is prepared, approved and implemented, and regularly updated;
4. Budgeting procedures are prepared and introduced, and well-justified budgets are submitted on time and approved, in order to ensure sufficient funding of the company's operations, allowing for changes in cost level.;
5. Financial management procedures are developed and applied;
6. A computerised MIS has been created, is kept current, and is being used effectively;
7. Wastewater tariff structure is developed and approved, and collecting procedures and a system to reach an acceptable rate of collecting are developed and implemented;
8. Personnel development plan is prepared, approved and implemented;
9. Operation and maintenance of the sewerage and drainage systems, including the household septic tanks and connections, are improved through preparation and implementation of O&M standards, better planning of operations ( including possible use of outsourcing, or equivalent use of the private sector), and improved monitoring of activities; and

10. The preparation of the World Bank/IDA project is completed and implementation carried out successfully.

### **3.6.2. Strengthened management of the Haiphong WSCO**

The key result of this is that the top management of the WSCO has the human and physical resources necessary for efficient and successful management of the company. The objectively verifiable indicators are:

11. Personnel development plan followed and updated.
12. An effective corporate management team has been created, with clearly understood individual responsibilities and with delegation of powers to the appropriate levels;
13. Top- and medium-level managers and other key staff make decisions promptly and rationally;
14. Company medium-term strategy is prepared, approved and implemented, and regularly updated;
15. Budgeting procedures are prepared and introduced, and well-justified budgets are submitted on time and approved, in order to ensure sufficient funding of the company's operations, allowing for changes in cost level.;
16. Financial management procedures are developed and applied;
17. A computerised MIS has been created, is kept current, and is being used effectively;
18. Water tariff structure is developed and approved, and collecting procedures and a system to reach an acceptable rate of collecting are developed and implemented;
19. Personnel development plan is prepared, approved and implemented;
20. Operation and maintenance of the purification plants and the network systems, including the household connections, are improved through preparation and implementation of O&M standards, better planning of operations ( including possible use of outsourcing, or equivalent use of the private sector), and improved monitoring of activities; and
21. The preparation of the World Bank/IDA project is completed and implementation carried out successfully.

### **3.6.3. Strengthened management of the Haiphong URENCO**

The key result of this is that the top management of the URENCO has the human and physical resources necessary for efficient and successful management of the company. The objectively verifiable indicators are:

1. Personnel development plan followed and updated.
2. An effective corporate management team has been created, with clearly understood individual responsibilities and with delegation of powers to the appropriate levels;
3. Top- and medium-level managers and other key staff make decisions promptly and rationally;
4. Company medium-term strategy is prepared, approved and implemented, and regularly updated;
5. Budgeting procedures are prepared and introduced, and well-justified budgets are submitted on time and approved, in order to ensure sufficient funding of the company's operations, allowing for changes in cost level.;

6. Financial management procedures are developed and applied;
7. A computerised MIS has been created, is kept current, and is being used effectively;
8. Solid waste tariff structure is developed and approved, and collecting procedures and a system to reach an acceptable rate of collecting are developed and implemented; and
9. Operation and maintenance of the collection equipment and the landfills, are improved through preparation and implementation of O&M standards, better planning of operations ( including possible use of outsourcing, or equivalent use of the private sector), and improved monitoring of activities.

#### **3.6.4. Improved financial administration of SADCO, WSCO and URENCO**

The key results of this is that the accounting systems of the 3 PSEs are accurate, transparent and properly audited, the billing and collection systems for water supply, wastewater and solid waste services have improved. The objectively verifiable indicators are:

10. Each of the accounting systems is current and conforms with the required standards;
11. The accounting systems provide accurate and timely information for budgeting, cost control, and decision-making purposes;
12. Current audit reports are available, and no irregularities are reported;
13. The water, sewage, and solid waste bills are sent regularly to the customers;
14. Charges for services are collected promptly, meeting at least each company's target for reducing receivables.

#### **3.6.5. Improved financing structure of the three companies**

The key result of this is that the proportion of revenues from fees and charges in the total annual financing of the three PSEs has significantly increased during Phase IV, reflecting increased self-sufficiency and progress towards financial viability without need for transfers from HPPC. The objectively verifiable indicators are:

15. The audited accounts of the three PSEs show that the structure of income has improved, with revenue income accounting for an increasing percentage of total income, and collected revenues meeting or exceeding the targets set in the annual corporate plans.

#### **3.6.6. Operation and maintenance procedures of SADCO, WSCO and URENCO**

The key result of this is that the O&M systems of the 3 PSE companies have been improved. The objectively verifiable indicators are:

37. SADCO establishes and puts into effect (either in-house or through outsourcing) a programme , updated annually, for regular emptying of all septic tanks.

38. SADCO establishes, puts into effect and monitors a programme, updated annually, for cleaning primary, secondary and tertiary sewers and drains, drainage channels and lakes, in order to maintain their hydraulic capacity and detention volume.
39. SADCO establishes, puts into effect and monitors operating rules for the tidal gates, and revises these annually or as necessary in the light of changes in upstream conditions.
40. SADCO establishes (or enters into contracts for) properly-equipped emergency response teams to deal with pipeline breaks or other serious interruptions to supply. Response time to significant interruptions to supply, or water quality problems posing a public health hazard, is less than 1 day.
41. SADCO maintains consumer complaints registers in each phuong office, and responds to all complaints within 2 days of receipt. A consolidated complaints record is maintained at the central office. Any complaints not resolved within 30 days are brought to the attention of senior management.
42. Water treatment efficiency, as measured by agreed indicators (power consumption per cubic metre produced; chemical consumption per cubic metre produced; filter washwater as a percentage of raw water intake; etc.), is equal or better than the targets set in the annual plan
43. Water losses from each section of the main network do not rise more than 5 percentage points above the values measured when rehabilitation was completed.
44. Non-revenue water in improve phuongs is kept within 5 percentage points of the value when the improvements were completed (i.e., a rehabilitated system should have less than 15 per cent non-revenue water; WSCO should ensure that this value does not rise above 20 per cent, and ideally should aim for even lower values).
45. WSCO establishes (or enters into contracts for) properly-equipped emergency response teams to deal with pipeline breaks or other serious interruptions to supply. Response time to significant interruptions to supply, or water quality problems posing a public health hazard, is less than 1 day.
46. WSCO establishes, puts into effect and monitors a program for regular flushing of all mains.
47. WSCO maintains consumer complaints registers in each phuong office, and responds to all complaints within 2 days of receipt. A consolidated complaints record is maintained at the central office. Any complaints not resolved within 30 days are brought to the attention of senior management.
48. URENCO monitors waste generation rates within the city, by sampling or other techniques, monitors MSW volumes and tonnage's collected, and achieves "unaccounted-for garbage" levels set out in each annual operational plan, on a phuong or other suitable basis.
49. URENCO achieves annual targets for compliance with standard vehicle maintenance schedules and for vehicle availability.
50. URENCO achieves agreed annual targets for outsourcing of collection services.
51. URENCO meets or exceeds annual performance targets for the proper operation of the Tang Cat landfill, including control of tipping, hazardous wastes management, soil cover to tipped material, and leachate control and treatment.

52. URENCO carries out spot checks throughout the city for accumulations of uncollected MSW, and takes appropriate remedial action.
53. URENCO WSCO maintains consumer complaints registers in each phuong office, and responds to all complaints within 2 days of receipt. A consolidated complaints record is maintained at the central office. Any complaints not resolved within 30 days are brought to the attention of senior management.

### **3.7. Activities**

The main activities of the sub-project A, Technical Assistance, Training and Studies, are outlined below. The actual activities in detail in association with the necessary resources will be agreed during the Programme implementation, and will form a part of respective annual work plan.

#### **3.7.1. Strengthening of management of SADCO**

The following activities are foreseen:

- Preparation/up-dating of personnel plan.
- Assessment of training needs, including those related to sanitation and hygiene promotion.
- Developing, revising and beginning implementation of training plan
- Reviewing of current company strategy by stakeholders
- Preparation or up dating of the company strategy.
- Reviewing present budgeting practices and developing an improved budgeting procedure for annual and long-term planning.
- Preparation and consultation to improve financing construction with a revision mechanism.
- Preparation or up-dating a computerised MIS system.
- Staff deployment or re-deployment for improved financial procedures.
- Continued orientation of personnel in new systems and procedures.

#### **3.7.2. Strengthening of management of WSCO**

The following activities are foreseen;

- Preparation/up-dating of personnel plan.
- Assessment of training needs, including those related
- Develop, revise and begin implementing training plan
- Review of current company strategy by stakeholders
- Preparation or up dating of the company strategy.
- Reviewing present budgeting practices and developing and improved budgeting procedure for annual and long-term planning.
- Preparation or up-dating a computerised MIS system.
- Staff deployment or re-deployment for improved financial procedures.
- Continued orientation of personnel in new systems and procedures.



### **3.7.3. Strengthening of management of URENCO**

The following activities are foreseen;

- Preparation/up-dating of personnel plan.
- Assessment of training needs, including those related
- Develop, revise and begin implementing training plan
- Review of current company strategy by stakeholders
- Preparation or up dating of the company strategy.
- Reviewing present budgeting practices and developing and improved budgeting procedure for annual and long-term planning.
- Preparation or up-dating a computerised MIS system.
- Staff deployment or re-deployment for improved financial procedures.
- Continued orientation of personnel in new systems and procedures.

### **3.7.4. Strengthening of financial administration of SADCO, WSCO and URENCO**

The following activities are foreseen:

- Preparation/up-dating of a accounting personnel plan
- Assessment of the training needs
- Implementation of the training programme
- Preparation of an improved tariff structure with a revision mechanism
- Preparation and continuous up-dating a computerised customer register
- Consultations to prepare improved tariff construction with a revision mechanism and strategy for initiating it
- Preparation and continuous up dating of computerised customer register
- Preparation of periodic review, with staff of financial procedures.
- Conducting periodic audit/accounting check with agreed distribution of audit report summary.
- Set up monitoring system to review/refine procedures for payment and billing, for collection.

### **3.7.5. Improving financing structure of the three companies**

The following activities are foreseen:

- Review with stakeholders the strengths and weaknesses of current procedures and structures
- Preparation/up-dating the revenue structure and level
- Preparation/up-dating the revenue collection mechanisms
- *Up-dating/modernising the cost calculation system*

### **3.7.6. Developing the O&M procedures of the three companies**

The following activities are foreseen:

- Review with stakeholders the O&M practices, repair times etc
- Set indicators and criteria for O&M.
- Review and revise O&M procedures manuals
- Identify partners & out-source maintenance to a reasonable degree
- Plan and try-out a customers complaints response system including orienting customers, ensuring monitoring and the validity of the information
- Plan and try out a customer incentive system for information of failures and problems encountered
- Refine plans and provide training on large-scale
- Implement systems with continuous monitoring.

## **4. Assumptions and risks**

The assumptions and risks presented below are valid for all the three sup-projects.

### **4.1. Assumptions**

The project design is based on the assumption that following issues not directly under control of the programme are implemented and resources secured by responsible stakeholders:

- (i). The authorities responsible for policy matters will take prompt actions to approve and further enforce policy changes and regulations affecting issues beyond the mandate of the three PSEs. Examples are protection of water sources, consumer policies including water tariffs and sewerage charges, enforcement of environmental regulations, and personnel policies. In this way an enabling environment for Programme implementation can be provided.
- (ii). The relevant three Public Service Enterprises are committed to the adoption and prompt implementation of management principles and mechanisms developed by the Programme, including delegation of powers and duties to appropriate levels.
- (iii). The present Phase III is adapted to support a smooth transition to Phase IV.
- (iv). Necessary agreements between the consultant and the Government of Finland can be approved and signed in time to enable the seamless commencement of activities on time.
- (v). Both parties – the Finnish and the Vietnamese – fulfil their obligations regarding the required inputs. This includes the nomination of Vietnamese staff to the three PSEs to conduct the necessary tasks (a vital condition for providing technical assistance on a particular topic should be that a counterpart has been appointed to have operational or managerial line responsibility for that subject).
- (vi). The Programme personnel – local and their advisers – have access to higher authorities in matters related to the Programme implementation.
- (vii). The office and other facilities and equipment, including transportation, procured and used by the previous Phases of the Programme will continue to be available to be used for the implementation of Phase IV.

### **4.2. Risks**

The following risks can be identified:

- (a) The funding of the Programme, particularly the local funding will not be sufficient and/or on time. This will slow down the implementation and cause also a risk to the implementation of the WB/IDA-projects 1A and 1B, and also delay the disbursement of the foreign component.

- (b) There will be a pressure to divert Phase IV resources to facilitate the WB/IDA funded project 1B. If yielded to them, it will hamper the support directed to the capacity building of the three PSEs and jeopardise their capability to cope with the ever-increasing volume of responsibilities.
- (c) The recruitment of competent staff to the three PSEs is delayed. This will cause a danger of collapse of the funding to the two major investment projects, 1A and 1B. This in turn will cause serious problems to the implementation of Phase IV of the HPWSSP.
- (d) Lack of commitment of HPPC, TUPWS, and the three companies towards the necessary policy changes, and their implementation as well as administrative and managerial improvements. This, if serious, could nullify the purpose of the Programme.
- (e) Lack of co-operation due to rivalry between the three companies may cause overwhelming problems to share the advisory resources available during the Phase IV.
- (f) Necessary funding is not made available to support the normal capital programme and the O&M budget of the PSEs, leading to neglect of activities other than 1A and 1B, and in particular affecting SADC maintenance of the sewers where 1B is not active and parts of its system which will not have been rehabilitated.
- (g) Cross pollution from industrial wastes inhibit improvement of the environment

## **5. Implementation**

### **5.1 Physical and non physical means**

The support will be mainly technical. Long term advisers will be provided in the fields of management, institutional and managerial development. Training will be provided as a part of technical assistance

#### **5.1.1. Non-physical inputs**

##### **Fundamental principle: the core team**

With 3 companies to support and a limited budget, the problems of designing a suitable framework for the TA to be provided under HWSSP IV are considerable: the need to build not only competence in unfamiliar approaches but also confidence in foreign advisers; problems of availability of good advisory staff at short notice; very different competencies and capabilities between the three companies; and almost certain major deviations from any work-plan. The principle adopted is to create a core team of experts, which can be drawn upon to serve the evolving needs of all three companies. This team will consist of relatively few, mainly long-term advisers, with broad expertise (admittedly at a lower level than specialists) who can move between companies as needs and opportunities arise, and who can develop good personal relationships with their counterparts. Short-term specialist advisers will of course still be required to assist with particular issues, but as far as possible efforts should be made to minimise “parachuted” experts capable of responding to only one item in the logical framework.

The technical assistance team composition and the job descriptions are presented in VOLUME V, ANNEX 5.

The core team will consist of the following advisers and their counterparts:

Team Leader/Corporate Mgmt. Adviser (full period)  
Financial Management Advisers (almost full period)  
Community Participation Advisers (part of the period)  
Planning Advisor (part of the period)  
Utility Management Specialist ( part of the period)  
HRD Adviser (part of the period)  
Sanitary Engineers (part of the period)

##### **Other expenditures**

##### **Computers and software**

For the companies to benefit fully from the TA, they will need to have equipment which is capable of operating the software generally in use in the sector, and of manipulating the increasingly large data files associated with it. Electronic data transfer between companies (probably not by networking; e-mail transmissions seem likely to be more

appropriate) will increase as GIS information is shared, and as billings and revenue collection records have to be regularly communicated.

Allocations of 140 000 FIM per company for upgrading of computers and software have been made.

**Training, exchange visits and "internal twinning"**

A total contribution of 600 000 FIM for each company has been budgeted . All local costs of training, which may be approximately the same as the foreign costs, should be met from the Vietnamese contribution.

**Minor expenditures:**

Funds of 150 000 FIM per company for procuring minor items of equipment, repairing specialised test equipment, or carrying out emergency repairs or modifications needed to allow studies and investigations to proceed on schedule has been budgeted. These discretionary funds should not be used as replacements for normal funding made available through the routine planning and budgeting process.

**5.1.2. Physical inputs**

The foreign component does not include physical inputs as the major investment projects 1A and 1B, funded by WB/IDA will provide the planned physical inputs for the period. However, there is a small reserve for emerging immediate equipment and material needs. Their quality and quantity is determined during the Programme.

**5.2. Organisation and implementation procedures**

**5.2.1 Organisational arrangement**

**Location of the Programme**

Given the core team approach described above, and the need to review TA allocations on a regular basis, it would not be appropriate to subdivide WSSWMP into three sub-modules, each allocated to one of the companies. Instead, the Programme will be located within TUPWS. This appears to have several advantages

- ◆ TUPWS is the parent organisation for each of the three companies
- ◆ TUPWS can be impartial about the allocation of resources
- ◆ TUPWS is best placed to take appropriate remedial action if any company is unable to make good use of TA because it is deprived of operational funds, cannot create and fill the necessary staff positions, or is having difficulty in receiving approval for the necessary administrative reforms.

In addition, while no specific TA has been allocated for support to TUPWS itself, the regular working contacts with the HPWSSP Team Leader, other HPWSSP staff, visiting missions, etc., should improve TUPWS' ability to plan and manage, essential skills in view of the number of city services for which it is responsible. TUPWS should enter into

commitments to DIDC to make every effort to create an “enabling environment” for the three companies, for example by making prompt decisions on matters such as proposed reorganisation or the recruitment and transfer of staff (ideally, as the companies gain management experience, such internal matters should be left to them to decide, with TUPWS’ input confined to more serious policy matters and general oversight), and by providing reliable and adequate investment and recurrent budgets.

It appears to be merit in retaining the present support staff, who has gained considerable experience in coping with the problems inherent in dealing with a foreign staff with considerable logistical requirements and no local language capabilities. Since these staff at present belong to WSCO, they could be counted against WSCO’s contribution to the Programme costs.

### **5.2.2. Implementation practices**

#### **Readiness of companies to receive TA**

Institutional development cannot occur in the absence of national counterparts, to whom knowledge and skills can be transferred. Therefore each of the companies needs to make a serious effort (beginning as soon as possible) to recruit staff to currently vacant positions, and their success should be used as a factor in developing the annual work-plans for TA. Of particular concern is the continued failure of WSCO to restructure its organisation so as to make full use of Deputy Director positions and to improve its own financial management capability; this lack of internal capacity in commercial operations (especially financial management and accounting) prevents the provision of effective TA on these matters, and the inability of the company to produce sound financial statements and carry out audits may jeopardise its relationships with the WB on the 1A Project.

In allocating TA resources, account should also be taken of the extent to which each company has developed or is committed to an inter-disciplinary approach to its operations. The three companies must perform their technical functions efficiently, but equally they need to operate along commercial lines as far as possible, and also need to improve customer relations, advertise available support (for example, the septic tank program) and encourage responsible behaviour (for example, avoiding wasting water, or keeping MSW out of drains and channels).

In general, the allocation of TA proposed in this document should only be taken as a general overall guide; decisions on the optimal use of resources during Phase IV should be made in the course of each year’s work-plan development.

#### **Twinning**

At this stage, the proposals do not contain any provision for formal twinning arrangements (which the WB has suggested as the preferred mechanism for TA provision). If the basic concept of a core team serving all 3 companies is accepted, twinning as an additional source of support introduces problems of co-ordination, as well as additional costs. The concept of twinning would be good, if a suitable partner town could be found that met the needs of all 3 companies, could be flexible in providing key

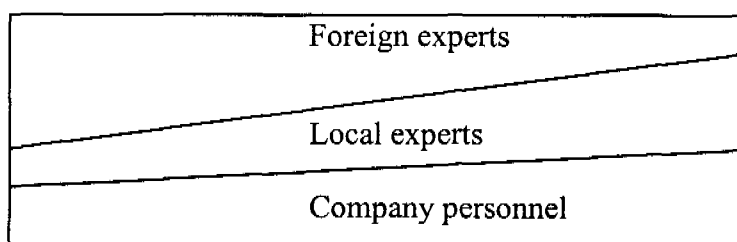
staff, and was not unduly expensive<sup>1</sup>. However, given the budget limitations and the present imbalance in capacity between the three companies, full twinning arrangements (regular interchange of quite a large number of key staff) might virtually preclude the use of experts from a Finnish consulting firm, other than the Team Leader. It might even be simpler and more effective to hand the entire TA exercise over to the selected twin city.

A more promising approach seems to be exchange visits with cities in the region, to expose company staff to new ideas, or to encourage outsiders to contribute fresh perspectives. These should not be limited to technical staff; for example, it is likely that countries such as the Philippines and Indonesia could contribute good ideas as a result of their experience of community participation in the design, implementation and management of infrastructure projects, and of financial mechanisms to make services available to the poorest members of society. This approach also appears to be more acceptable to the companies themselves and to the authorities in Haiphong.

Another type of co-operation which might be called “internal twinning” would involve exchange visits and consultations between the three towns participating in the WB project. This appears to offer useful opportunities to learn about successful and unsuccessful experiences in dealing with common problems, for example in awareness campaigns, outsourcing, financial mechanisms to support low-income customers, or septic tank servicing in congested areas. The costs should be minimal.

#### **“Vietnamisation”**

The proportion of the total TA provided by foreign experts should gradually decrease, with correspondingly greater reliance placed on experts from Vietnam or from other countries in the region. This is a natural consequence of the increasing capacity of the consulting industry in Vietnam (especially in certain sectors, such as accounting and computer systems), the desirability of using experts with an intimate familiarity with the problems which the companies confront, and the much lower cost of using local personnel. This trend over time is illustrated below:



#### **TA to other city organisations**

There is an undoubted need to improve institutional capacity in other parts of the city administration that are important to the success of the 1B Project and to the future development of Haiphong. As noted above, TUPWS would benefit from in managing and co-ordinating the large number of organisations that report to it, and there are many

<sup>1</sup> HPWSPCo expressed interest in twinning, but its previous attempt under HPWSSP had to be abandoned (because of high costs?). The other two companies have no experience of this form of TA, and at a joint meeting, when asked whether they were interested in it or not, expressed no views on the matter.



other examples of cases where TA in municipal planning, finance and administration would be of benefit. In addition, specialised units have responsibilities which will affect Phase IV, such as DOSTE's monitoring of wastes discharges and its role in developing and promoting appropriate technology in the environmental sector, and the city Health Department's responsibility for hospitals in the city (which have their own special waste disposal problems) as well as for the development and dissemination of health messages. It is not feasible to include such agencies in the proposed TA package, but at a minimum their representatives should be invited to participate in planning and co-ordination sessions.

While these broader needs cannot be accommodated within this project, it is important that whatever TA is provided to address them takes account of Phase IV activities. (As a simple example, any general studies of the potential for privatisation of city operations should be co-ordinated with the Phase IV studies of the potential for outsourcing, and the WB requirements stipulated in the 1B Project agreements.)

### **Removal of solid waste**

In addition to improving sanitary conditions, the management of solid waste needs improvement. At Phuong level solid waste collection as organised by URENCO does not seem to be the major problem. However, people discharging solid waste into drains at inappropriate times, kitchen wastes being discharged into the sewer system and uncontrolled discharge of construction materials are problems to be solved.

## **5.3. Timetable**

The tentative timetable for the TA Sub-project January 2001 - December 2004.

The timetable can be presented first after the transition period from Phase III has progressed near to its end, and its achievements are known. However, as the basic principle of the resources allocation is sharing the TA resources between the three companies, it can be concluded that the input of the long-term advisers will start in the beginning of the Phase and continue throughout. The short-time advisers will be called based on the annual planning and the progress of the Programme.

## **5.4. Cost estimate and financing plan**

The total costs of the Programme are estimated to be FIM 64.4 million, equivalent to approximately VND 159.5 billion ( USD 1 = FIM 5.65 = VND 14,000). Out of this, the foreign component costs, to be covered by the Government of Finland, are estimated to total FIM 53.1 million, and the local component costs VND 27.9 billion.

The estimated foreign component costs of the Technical assistance, Training and Studies Sub-project, covered by the Government of Finland, are summarised as follows:

		FIM in thousands
Technical assistance:	SADCO	14.350
	WSCO	7.000
	URENCO	4.500
	Pooled support**	4.600
Total		30.450

\*\* *“Pooled support” includes training, computers, minor expenditures, and contingency allowances, which will be allocated as needed.*

The local component for the Technical Assistance, Training and Studies, estimated to VND 16 billion, consists of the costs of the local staff, office accommodation, housing of expatriates (but not their electricity, water and communication charges) and the costs of investments.

## ***6. Factors ensuring sustainability***

### **6.1 Policy support measures**

In order to enhance the sustainability of the Programme, HPPC and the relevant authorities in the Central government will take measures to approve and enforce necessary policy changes and regulations to provide supporting policy environment for the implementation of the programme.

### **6.2. Appropriate technology**

In order to enhance the sustainability of the Programme, HPWSSP Shall:

- ensure back-up support for equipment and accessories to be procured by giving appropriate focus and priority on availability and capacity of local products, services and training resources
- further study, within possibilities (parallel to implementation, but apart from 1B-project activities) alternative low-cost technologies to reduce, treat and transport sewage.

### **6.3. Environmental protection**

In order to enhance the sustainability of the Programme, HPWSCO, SADCO and URENCO, and other relevant organisations shall:

- enforce regulations of water abstraction, and make sure of source protection
- incorporate the concepts of environmental protection and sustainability into the medium term strategy, management and personnel training, and tariff and rate setting procedure.

### **6.4 Socio-cultural aspects from gender perspective**

In order to enhance the sustainability of the Programme, HPWSSP

- incorporate socio-cultural aspects and gender sensitive approaches into its planning and management culture
- sensitise the target population to the activities of the programme through consultations and participatory approaches
- pursue equal employment opportunities.

### **6.5. Institutional and management capacity**

In order to enhance the sustainability of the three companies, WSCO, SADCO and URENCO, and the Programme the HPPC shall:

- enhance the effective and efficient co-operation amongst the key actors
- ensure that the relevant authorities, and PSEs have the capacity and willingness to discuss, approve on time, and monitor and enforce strategies, plans procedures and practices

and HPWSSP shall:

- ensure and safeguard its own capacity and willingness to execute approved annual workplans
- ensure that the HPWSSP purpose is properly understood and fostered at all levels

## 6.6. Economic and financial analysis

The WB/IDA financed project (1B) has conducted as one of the preparatory tasks an economic and financial analysis in December 1998 of improvement of the sewer/drainage of Haiphong in 22 Phuongs.

Quote:

The projections are prepared on constant prices. Without the project, if the current situation is continuing, it will lead to environmentally irreparable consequences and unacceptable conditions. The situation will become so intolerable that it is estimated that the citizens have to take action for better sanitation. It is assumed that the deterioration of the situation increases costs 1.5% annually.

Basic assumptions: Population of 22 'phuongs' (included in the 1B project) has been considered in calculation: growth rate of 1.5 %, number of households, 5 inh. per each household. Average income per household/ 1 000 VND, 4%annual growth.

Affects:

1. Reduced Flooding: The damages for the industry are estimated to be the value for one day's production of the 30% of the total industrial production. The growth rate for production is 5%. The project will reduce the value of damages gradually to zero.
2. Health There are no statistics available for water born diseases in Haiphong. Health statistics record appr. 57050 (dysentery, hepatitis, skin disease) cases annually. The use and expenses of most common diarrhoea medicines (VNid 20.000/c/a) estimate the costs of unregistered cases. Moreover, the losses of time, money and earnings are considerable. The values of working days lost due to illness are estimated by average monthly income, 3 days/year for unregistered cases and 37 hospital days for recorded water born diseases. It is believed that water diseases related to flooding are mainly bound to a certain area. Therefore figures are scaled to correspond with the population data of the project area. It is also assumed that there are 2 working persons in a household. It is estimated that the project will decrease the cost if illnesses by 15%.
3. Property values There are 46000 houses in the flooding, area with the average property value of VND 5 mio. The value is expected to increase by 20% after the project. Damage to buildings is assumed to be 2% up to 0.3m-flood depth and 3% there after. Maximum yearly damages correspond to areas where it floods 4 times a year/ 10.000 houses.
4. Repair on municipal infrastructure Accounted flooding related expenditure in Haiphong's public service companies. This includes cost of repairing the roads, sewers, water supply system, and electricity and telephones lines. The project will reduce these costs to zero.
5. Attractive city image to investors and public The inconvenience caused by floods, bad smell, disturbing insects breeding in lakes and ponds, hindrances in using lakes for recreation and in

many cases therefore the loss of business opportunities and customers is imminent. Bad quality of urban environment can be a serious obstacle in city development blocking future investments for production and service industries. In the Feasibility Study it was estimated that this attraction factor accounts up to VND 50,000/c/a.

6. O&M costs The updated operation and maintenance costs of the project from the financial analysis (WB 21/12/98) covering the years 1998-2007 are used as the basis for the cost-benefit analysis. The cost emptying of septic tanks are included in the O&M costs. It is assumed that with the project the O&M costs will increase 5 % /annum between 2004 – 2010 and 2 % / annum between 2010 and 2020. Without the project O&M costs will increase 3 % / annum. Consumer costs will be VND 1000 – 1500 / c / month for maintaining tolerable sanitation conditions in no-project case.

The economic rate of return (EIRR) gained with these assumptions is 14.04 %, leaving the present value (NPV) of VND 111.811 million at the discount rate of 10 %. Benefits like increased property values or attractive city image are very difficult to quantify. Property values presented here do not correspond with construction costs or resettlement compensations used at the moment. Project benefits would have been much higher if those values had been used.

The figures presented above are regarded to be cautious. In general the project (1B) is particularly sensitive to the valuation of property benefits, benefits towards production and benefits to city image. All of these items should be defined with extreme care.

Unquote

An economic and financial analysis of Phase IV of the HPWSSP is totally dependent on the above, as it is designed to support this heavy investment project. In addition the Phase IV is consisting of technical assistance, as a grant. To measure the impact/benefits can only be done afterwards, and based on the success of the investment project as well as sustainability results of the capacity building of the three PSEs.

## 6.7. Ownership

In order to enhance the sustainability of the WSCO, SADCO, URENCO and the Programme, HPPC shall:

- take necessary decisions promptly and monitor the performance of the three PSEs and the Programme keenly
- contribute necessary resources paying special attention to the provision of competent personnel
- involve the whole decision making structure of Haiphong in the decision making and monitoring, including the PCs at phuong level

In order to enhance the sustainability of the Programme, WSCO, SADCO and URENCO shall:

- make sure of a firm commitment for the capacity building of the three companies through the assistance/support of the Programme

- put everybody in the companies to work to accomplish the results of the Programme, and transformation towards better service culture and customer responsiveness
- ensure the integration of technical assistance personnel as advisers, not implementors, into their management system and pursue smooth co-operation between all the key actors in the Programme implementation by encouraging team problem-solving
- plan for the multi-year budget for their own share of the Programme costs, and ensure that the allocated resources will be available in accordance with the plans
- ensure in collaboration with the technical assistance personnel that the Programme management procedures and activities are transparent and accountable
- initiate institutional changes to diminish the slowness and red tape in decision making to the minimum possible

In order to enhance the sustainability of the Programme, the Ministry for Foreign Affairs of Finland, Department for International Development Cupertino shall:

- foster approved and consistent procedures regarding its aid disbursement and project management and monitoring.

In order to enhance the sustainability of the Programme, the technical assistance personnel shall:

- use the best professional judgement and the best management practices for fulfilling their duties.

## ***7. Monitoring and evaluation***

### **7.1. Monitoring indicators**

The objectively verifiable indicators are presented in VOLUME V, ANNEX 2, Logical Framework. The monitoring indicators, which should comply with the OVIs, shall be defined in the Annual Work Plans. The reports, e.g. Annual reports, Mid-Term Review, Project Completion Report, which will be the sources of verification, are assumed to be based on actual operational and financial data and records of the three companies (PSEs) This implies that the data must be readily available (transparency) when these reports are prepared.

### **7.2. Reviews and evaluations**

The monitoring of the Sub-project Technical Assistance, Training and Studies shall be based on monthly reports ( WSSP internal, each adviser reports to her/his superior, the team leader), quarterly progress and financial reports. Quarterly reports shall be reviewed in the Steering Committee meetings.

Annual reports shall be prepared within two months after the end of each year, and presented to the Government of Finland, the Government of Vietnam and the World Bank. The World Bank shall define the manner in which it requires reporting on the components directly linked with the projects 1A and 1B

In addition, the MPI, HPPC and Ministry for Foreign Affairs of Finland may carry out their own reviews and evaluations from time to time as they deem necessary. The World Bank shall also be entitled to review and evaluate the implementation and results of the components which are directly linked with their own projects 1A and 1B.

It is envisaged that the performance of the Programme will be externally reviewed and evaluated twice during the implementation period – the first time in the middle of 2002 (mid-term review), and the second time towards the end of the phase (mid 2004).

A project completion report shall be prepared within three months after the end of the Programme.