# CHAPTER 13 CONCLUSIONS AND RECOMMENDATIONS

## **13.1** CONCLUSIONS

This Master Plan Study has identified the required sewerage development and proposed the sewerage system component to be implemented up to 2015 as the Sewerage System Master Plan. It also has proposed consecutive three stage implementation program with preliminary technical, financial, economic, and social evaluations, and finally identified the Priority Project for Feasibility Study.

The proposed Priority Project will be studied more detail in the subsequent Feasibility Study phase. The study includes preliminary engineering design, system O/M plan, financial plan, cost estimation, EIA, evaluation of Project, and implementation plan.

## **13.2 RECOMMENDATIONS**

## 13.2.1 GENERAL

In order to seek the early realization of the Master Plan, together with an improvement of CORAASAN's services and the attainment of a sound and stable institutional and financial setup, close cooperation and coordination are deemed indispensable not only among the departments/divisions/sections within CORAASAN, but also between CORAASAN and the relevant authorities concerned.

## **13.2.2 PERIODICAL REVIEW AND UPDATE OF THE MASTER PLAN**

This Master Plan is prepared to seek the appropriate sewerage system improvement toward the target year of 2015. As urbanization is dynamic and has been exploring toward the outskirt of Santiago City, including redevelopment area within the built-up area in the Study Area, a periodical review and update of the Master Plan is indispensable.

The relevant authorities, such as the Municipal Council of Santiago, Tamboril and Licey Municipalities and other local governments shall be called to cooperate. CORAASAN shall closely cooperative with such authorities to reflect the latest urban development of the staged sewerage improvement plan.

To achieve such a plan properly, continuous data collection within CORAASAN and from the authorities concerned shall be programmed and carried out.

## 13.2.3 NATIONAL LEGISLATION AND ORGANIZATION IN THE WATER SECTOR

## (1) Legislation and Organization

There is an urgent need to enact the proposed governing legislation for the water and wastewater sector, having ensured that it is internally consistent. The proposed Water Supply Law that has been before Congress for at least a year, the newly prepared General Water Law (intended to be the umbrella legislation for the water sector and will specify an enlarged role for INDHRI), should both be enacted1 as soon as possible, as long as they are consistent with each other and with Environment Law No. 6418-2000. The latter is particularly important because of the considerable coverage of the Environment Law in the water sector. For example, INDHRI, which is now under SEMARENA, has already extensive responsibilities in the water sector, and SEMARENA is responsible for assessing and granting (or refusing) applications for surface and ground water extraction. It may therefore be necessary to amend Law 6418-2000 to be

<sup>&</sup>lt;sup>1</sup> On the major assumption that this is the most effective way of updating water sector legislation

consistent with the two water laws. But for the future of sectoral legislation (based on experience in developed countries), it is preferable that responsibilities in the water sector are added to Law 6418-2000 rather than removed from it, while ensuring internal consistency.

The enactment of this legislation will permit the policy making, supervisory and regulatory body(ies) for the water sector to be established and made operational, and will also allow progress to be made in the commercialization of water and wastewater service providers.

However, the relative complexity of the new legislative structure in the water and environmental sectors would seem to provide scope for considerable rationalization in future towards a unified water and environmental sector legislation.

## (2) SEMARENA

It is recommended that SEMARENA should speed up the documentation and dissemination of its organization, responsibilities and activities. It is important that its scope, remit, objectives and plans, authority and achievements are fully understood by industry, all agencies in the water sector and the public. At present, the only published documentation appears to be Law 6418-2000 and the discharge norms. This not sufficient for a new potentially unpopular agency that should be struggling to make itself heard and understood. Senior officials who are responsible for disseminating information about SEMARENA to local and international bodies should do so more willingly and effectively.

As a minimum, there should be (1) a published "corporate" plan, (2) a published customer charter explaining, for example, the scope of SEMARENA's responsibilities and what the public should expect in terms of services and service standards, where it can be contacted, and how the public can assist, and (3) small friendly brochures giving the main points of (1) and (2). Also, a scale of charges and penalties is needed, to be levied when discharges to the environment exceed the permitted levels.

On the positive side, in Santiago a Northern Regional Office and a Municipal Office (Unidad Gestion Ambiental Municipal – UGAM) have both been established and appear to be achieving results. There are apparently plans for three more regional offices that may house staff from all five SEMARENA subsecretaries.

#### (3) INDHRI

Not much is known of the proposed role for INDHRI, largely because there has been no final agreement between SEMARENA, INDHRI and the legislators on the subject. The Study team would suggest that planning and regulation of the water sector should be kept organizationally separate from bulk water development and supply. If INDHRI is to continue to fill both roles, creation of two separate agencies should be considered as was the intention in the originally proposed water supply legislation

#### **13.2.4 FINANCIAL RECOMMENDATIONS**

An approach for implementation of each of the financial improvement plans has been suggested below:

#### Continuity of management

The government of DR should make arrangements for continuity and orderly transition in financial management.

#### Tariff setting mechanism

The government may decide about assigning tariff setting function to an independent regulator.

#### Frequency of tariff setting

The government should decide on frequency. At an appropriate time, a detailed study will be needed to determine appropriate structure and level.

#### Accounting system

CORAASAN can directly establish mechanisms for full reconciliation of data among various departments such as finance, commercial, and engineering (e.g. actual investment expenditure during a particular year). Cost accounting system should be established. The focus should be on (b) proper cost allocation mechanisms to reflect true correct cost of operations, maintenance and administration, as well as true cost of water and sewage.

#### External Audit

The CORAASAN Board should decide on appointment of an external auditor.

#### Internal Audit Department

The CORAASAN Board must decide on enlarging the mandate of the internal audit department and provide appropriate staffing and other resources.

#### Financial Planning

CORAASAN should decide on the need to have medium or long term financial plan. CORAASAN financial staff should prepare a 5 year budget—income statement, cash flow and balance sheet to provide a forward vision and facilitate planning. It must be updated at least annually on basis of the latest developments. Of course, data co-ordination with engineering, commercial and other relevant departments will be needed.

#### Financial Training

CORAASAN can arrange internal and external training of staff through participation in professional seminars and formal classroom type of training.

#### Commercial Viability

The government should decide about the elements of commercial viability of CORAASAN such as (a) collecting its water and sewage bills in full and on time from all consumers, and (b) contribute a reasonable share of self financing for investment program.

#### Accounts Receivables

CORAASAN should take decisions relating to (a) dealing with inflated bills, (b) carrying out a survey, (c) providing incentives for settling long outstanding bills, (d) establishing and strictly enforcing procedure for dealing with delinquent customers, and (e) start of legal proceedings including a lien against the property i.e. the property cannot be sold without settling CORAASAN bill. In case of outstanding bills of the government and its agencies, there must be direct discussion, negotiation and decision at high level in order to settle the bills.