

CHAPTER 1 INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Tegucigalpa (its administrative name is the Central District), the capital of the Republic of Honduras, is a center of governmental legislation and administration, and education. Water supply service for Tegucigalpa is managed by the Metropolitan Division of the National Service Authority for Water Supply and Sewerage (SANAA) that is a responsible organization for the administration of nation-wide water supply and sewerage services.

Present water supply service coverage in Tegucigalpa counts about 90% in terms of population, approximately 900,000 residents. However, service condition of the water supply is such far from satisfactory level as water rationing has become common practice in most service areas throughout the year.

The supply capacity before Hurricane Mitch in 1998 has been reportedly below the demand by 30% in yearly average and deficits has become much severer in the dry season. This is apparently because that SANAA failed to increase the water supply capacity to meet the demand due to various reasons, including unplanned urban development without authorized urban development plans.

Moreover, Hurricane Mitch hit Tegucigalpa in October 1998, causing enormous damages on its infrastructures, as well as human damages. Since the disaster, restoration works under international cooperation by numbers of foreign countries have been concentrated in various damaged facilities and the water supply capacity is going to be recovered to some extent. However, those restoration works are not well organized due to their urgent nature and will not improve the conditions systematically. The capacity would remain much worse than the one before the disaster, which was already far less than the demand.

As such, the water supply in Tegucigalpa is facing two major problems; to confront the current deficits in balance between demand and supply and to make provision for the future demand growth. This study (hereinafter "the Study") aims to prepare a master plan for the middle term development of water supply capacity and to conduct a feasibility study for a priority project in the master plan to improve the current water shortage.

1.2 OBJECTIVES OF THE STUDY

The objectives of the Study are as follows.

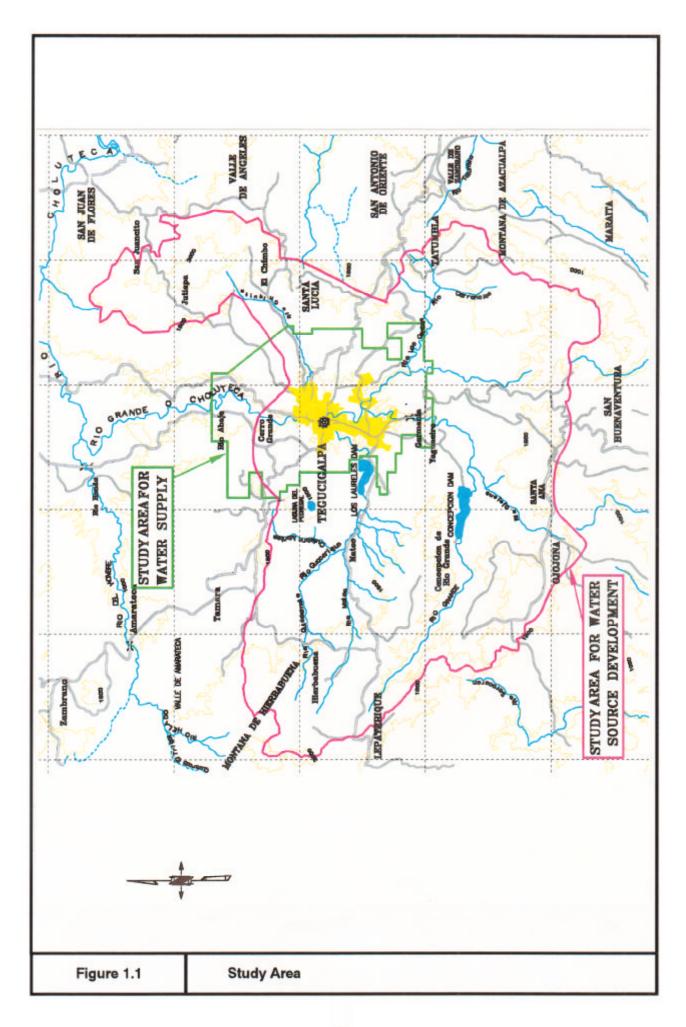
To formulate a water supply master plan for the target year of 2015,

To conduct a feasibility study (F/S) on priority project(s), which should include the water source development in the Guacerique River and/or the Sabacuante River basins, identified in the master plan, and

To pursue technology transfer to the counterpart personnel in the course of the study.

1.3 STUDY AREA

The Study covers the urban area of Tegucigalpa as water supply service areas, and areas related to the potential water sources. The development of water source in the master plan is limited in sites within the urban area of Tegucigalpa and its upper-stream basins, in principle. *Figure 1.1* shows the Study Area for the water source development.



The study area for the water supply service were considered to follow a future urban area described in plans by the Municipality of Tegucigalpa or other related authorities. While no such authorized plans that include the future urban area were found, there is future urban areas proposal by SANAA for the discussions on the expansion of its service area with the Municipality of Tegucigalpa. The Study adopted the urban area proposed by SANAA as the Study Area for water supply service in the master plan. The area is shown in *Figure 1.1*.

1.4 STUDY ORGANIZATION

The Study is conducted under the following organizational scheme:

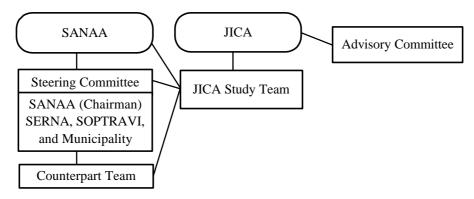


Figure 1.2 Study Organization

The Study Team is composed of the following 14 members.

<u>Name</u>	<u>Assignments</u>
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Mr. Akira Takechi Team leader/ Water supply planning

Mr. Mitsuo Miura Deputy team leader/ Water source development

Dr. Chaisak Sripadungtham Hydrology and hydraulics

Mr. Teruo Tahara Geology

Mr. Robert Pezet Transmission and distribution planning

Mr. Didier Renard Network analysis

Mr. Hiroaki Miyakoshi Water supply facility planning Mr. Satoshi Kojima Organization management

Mr. Akihiro Nakagome Economic/ Financial analysis/ Privatization

Mr. Hirokichi Yoshizawa Water supply facility planning

Mr. Masayuki Kikuchi Leakage control

Dr. Valerio Gutierrez Natural environment/ Water quality/ Social

consideration

Mr. Kazutoshi Kashima Construction plan/ Cost estimates

Mr. Kyoichi Sugimoto Study administration

The Advisory Committee consists of three (3) members as follows.

Name Assignments

Mr. Yoshiki Omura Chairman of the committee

Mr. Hidetomi Oi Committee member
Mr. Kazuo Tani Committee member

SANAA has organized a counterpart team consisting of the following members:

<u>Name</u> <u>Assignments</u>

Mr. Ramón Rosa Cuellar Hernández Chief/ Water supply planning

Mr. Jorge David Falope Maldonado Sub-chief/ Water source development

Ms. Gladis Rojas Izaguirre Hydraulics and hydrology

Ms. Zoila Estela Domínguez Geology

Ms. Myriam Elizabeth Narvaez Rodríguez Environmental and social consideration

Mr. Cesar Augusto Guillen Padilla Leakage control

The Steering Committee was established with the following members.

<u>Name</u> <u>Organization</u>

Mr. Reydel Pineda Representative of Municipality

Mr. Luis Felipe Pineda Milla Representative of Water Resources, Ministry of

Natural Resources and Environment (SERNA)

DF/R: Draft Final Report, F/R: Final Report

Mr. Claros Santos Enamorado Vice Secretary, Ministry of Public Works,

Transportation and Housing (SOPTRAVI)

1.5 SCHEDULE OF THE STUDY

A time schedule of the Study is shown in *Figure 1.3* together with a staffing schedule.

Year							20						
Month		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	De
ndy Schedule													
Work Items													
Preparatory work													
Water Supply Master Plan													
Urgent Water Source Development													
Feasibility Study for Priolity Project(s)													
Preparation of Draft Final Report													
Presentation of Draft Final Report													
Technology Transfer Seminar													
Preparation of Final Report													
Report		IC	Z/R					L	/R		DI	F/R	F/R
ffing Schedule													
Position	Name												
Team Leader / Water Supply Planning	Akira TAKECHI												
Duputy Team Leader / Water Source Development	Mitsuo MIURA												
Hydrology and Hydraulics	Chaisak SRIPADUNGTHAM												
Geology	Teruo TAHARA												
Transmission and Distribution Planning	Rebert PEZET										<u> </u>		
Network Analysis	Didier RENARD												
Water Supply Facility Planning	Hiroaki MIYAKOSHI												
Organization Management	Satoshi KOJIMA												
Economic / Financial Analysis / Privatization	Akihiro NAKAGOME)		
Water Source Designing	Hirokichi YOSHIZAWA										þ		
Leakage Control	Masayuki KIKUCHI												
Natural Environment / Water Quality / Social	Valerio GUTIERREZ												
Construction Plan and Cost estimates	Kazutoshi KASHIMA										<u> </u>		
Study Administration	Kyoichi SUGIMOTO												

Figure 1.3 Study Schedule

1.6 CONTENTS OF THE REPORT

This report contains all the results of the Study and comprises of Main Report, Supporting Report, Summary, and Data Book.