

Feasibility Study on Water Resources Development in

Rural Area in

the Kingdom of Morocco

Final Report

Volume III Supporting Report (1)

Basic Study

Supporting Report IV

***Environmental
Assessment***

**FEASIBILITY STUDY
ON
WATER RESOURCES DEVELOPMENT
IN
RURAL AREA
IN
THE KINGDOM OF MOROCCO**

FINAL REPORT

**VOLUME III
SUPPORTING REPORT (1)
BASIC STUDY**

**SUPPORTING REPORT IV
ENVIRONMENTAL ASSESSMENT**

Table of Contents

		<u>Page</u>
IV1	Initial Natural Environmental Examination (IEE)	IV-1
IV1.1	Objectives	IV-1
IV1.2	Procedures of Environmental Studies	IV-1
IV1.2.1	General Procedures of JICA	IV-1
IV1.2.2	General Procedures in Morocco.....	IV-3
IV1.2.3	Basic Approach of the Environmental Assessment.....	IV-5
IV1.3	International Conventions to be Considered.....	IV-6

List of Figures

Figure IV1.2.1	General Procedures of Environmental Considerations by JICA.....	IVF-1
Figure IV1.2.2	Institutional Structure of Secretariat of State (Ministry of Environment).....	IVF-2

SUPPORTING REPORT IV ENVIRONMENTAL ASSESSMENT

IV1 Initial Natural Environmental Examination (IEE)

IV1.1 Objectives

According to the environmental guidelines of Japan International Cooperation Agency (JICA), Initial Environmental Examination (IEE) is designed as a quick method of environmental impact assessment for a development project. IEE is an initial stage in the process of environmental considerations for a development project so that it is normally decided if an additional detailed environmental investigation, Environmental Impact Assessment (EIA), is necessary or not based on the result of this IEE. Technical objectives of an IEE are as follows.

- (1) To clearly identify development activities of a proposed project,
- (2) To conduct a brief investigation on the present conditions of natural and social environment in and around the project area,
- (3) To predict, in a rough manner, a level of negative environmental impacts that is possibly caused by a proposed project,
- (4) To specify potential negative impacts and to recommend if a full scale Environmental Impact Assessment (EIA) study is required or not, To prepare contents and Terms of Reference (TOR) for an EIA if necessary.

IV1.2 Procedures of Environmental Studies

IV1.2.1 General Procedures of JICA

Japan International Cooperation Agency (JICA) has general guidelines for environmental considerations for different sectors of development. JICA's guidelines such as "Guidelines for Environmental Considerations on Dam Construction¹" and "Guidelines for Environmental Considerations on Rivers and Protection of Erosion²" were particularly applied in this study. Environmental considerations by performing an IEE and EIA in different stages of a project are presented in the following Table.

¹ JICA (1994) XVI Guidelines for Environmental Considerations on Dam Construction

² JICA (1994) V Guidelines for Environmental Considerations on Rivers and Protection of Erosion

An IEE is normally conducted during a Basic study (B/S) or at an early stage of a Feasibility Study (F/S) so that potential environmental impacts can be detected at an initial stage of a development project. Therefore, an IEE provides valuable information to make an analytical scope of an EIA considerably effective. Overall procedures of environmental considerations by JICA are also shown in the following Figure IV1.2.1.

**Environmental Considerations by JICA in Relation to Different Stages
of a Project for Implementation**

Stages in Implementation of a Project			Environmental Considerations
Conducted by JICA	Preliminary Survey	Preliminary Survey	Preliminary Environmental Study
	Master Plan Study (M/P)	Feasibility Study (F/S)	Initial Environmental Examination (IEE)*
	Feasibility Study (F/S)		Environmental Impact Assessment (EIA)**
Conducted by Project Executing Agency	Implementation Program (including D/D)		Review on Environmental Management Plan (EMP)
	Construction		Implementation of Environmental Management Plan (EMP)
	Operation		Environmental Monitoring

Source) Guidelines for Environmental Considerations on Dam Construction, JICA (Jan. 1994)

* Environmental considerations in Phase 1 (IEE) of this JICA Study

** Environmental considerations in Phase 2 (EIA) of this JICA Study

Primary focus of an IEE is to conduct a screening on potential environmental impacts and scoping for an EIA. An environmental screening does not have to be based on quantified data, and a qualitative analysis of potential impacts is a main focus on making a decision on if an EIA should be conducted or not. Particularly for dam projects, there are two main ideas for an environmental screening:

- (1) Proposed dam project should bring considerable benefit to a local society so that sustainable development is maintained without serious negative impacts.
- (2) Proposed dam project should not cause serious negative impacts on natural environment, and important ecosystems should be conserved.

It is generally accepted in Japan that a dam project with a size of submerging area of more than 200 ha normally requires an EIA study. JICA has established the following views as the main concepts of environmental considerations for development projects, and those aspects should also be considered fully to minimize negative impacts at all levels of development project.

- Impacts on sustainability of livelihood depending upon natural resources

- Impacts on human health (e.g. waterborne and vector borne diseases)
- Impacts on deterioration or loss of habitats of biological resources
- Impacts on life styles and living standards of related local people

Scoping with an IEE is to identify potential impact factors, and JICA suggests that using a check-list be adequate and effective. Upon identification of environmental factors that will likely to be affected with a proposed development project, appropriate environmental parameters to predict a level of impacts can be selected for a subsequent EIA study.

Check-list for IEE conducted in this study are shown in NE1 of Volume VII Data Book.

IV1.2.2 General Procedures in Morocco

The Ministry of Environment (Secretary of State) is relatively a new governmental body in Morocco, which was established in 1994. An environmental impact study unit exists within the Secretary of State (see Figure IV1.2.2), but there is no legitimate EIA Law in Morocco at present time. It is, therefore, EIA is processed unofficially in Morocco, and National Council of Environment (NCE) has been formulated to provide technical assistance to the Ministry of Environment. The official member ministries of NCE are as follows:

- Ministry of Interior
- Ministry of Energy and Mining
- Ministry of Equipment
- Ministry of Agriculture, Rural Development and Fishing
- Ministry of Commerce, Industry and Craft
- Delegate Ministry of Fishing
- Ministry of Tourism
- Ministry of Health

Structure of the Ministry of Environment, Morocco

NCE acts as a main body in the process of EIA, and it is responsible:

- To approve the guidelines of EIA that is proposed by the governmental authority in charge of environmental conservation
- To examine EIA reports and provide advise (unofficial at present time)

- To propose amendments to the legal and institutional frame work of EIA
- To update the list of projects that requires an EIA

The Ministry of Environment has proposed to establish an official EIA procedure in Morocco (draft law for the protection of environment³), but the Government has not authorized it yet. Therefore, there is no legal status on the EIA procedure or there is no system to issue an official environmental permit for a development project by the Ministry of Environment in Morocco at present.

In the draft procedure, development projects are classified into two major categories. Projects that require an EIA are listed in List 1, and other projects without a compulsory EIA are placed in List 2. Dam project is included in List 1 so that an EIA will be required when the proposed procedure is authorized in Morocco. The Ministry of Environment recommends in the proposal that structure and general contents of an EIA report be in the following format:

Chapter 1: EIA synthesis

- Goals and objectives of the study
- Precise and concise statement on the basis of the study

Chapter 2: Institutional references for the establishment of an EIA study

- Moroccan laws, decrees and regulations on environmental protection in association with the EIA
- International regulations and conventions on environmental protection

Chapter 3: Project description and its location

- Detailed and concise description of the project (project activities)
- Objectives and location of the project site(s)

Chapter 4: Justification of the project

- Technical basis of the project
- General perception in the area of development (e.g. dam construction)

³ Ministry of Environment (1995) Proposal to establish a procedure for environmental impact assessments in Morocco

Chapter 5: Temporal environmental impacts

- Environmental impacts with different stages on the project (e.g. impacts during construction and operation stages)

Chapter 6: Perimeter of the study

- Identification of environmental factors that will likely be affected by the project (e.g. water, air, submerging ecosystems and etc.)

Chapter 7: Description and analysis of the state of environment

- Analytical methods of environmental impacts
- Physical, biological and social aspects of the impacts should be analyzed

IV1.2.3 Basic Approach of the Environmental Assessment

Basic approach of this assessment is to conduct an environmental investigation according to JICA's guidelines for environmental considerations, because an EIA system has not been fully established and authorized in Morocco. However, it is important to take environmental considerations of an aid recipient country so that the environmental requirements proposed by the Ministry of Environment are to be in cooperation within this JICA Study. Therefore, meetings and discussions with the Ministry of Environment should be held to maximize the application of environmental considerations of the Government of Morocco.

Furthermore, social issues are fully taken into consideration and presented in this study, particularly by referring to the guidelines⁴ prepared by Japan Bank for International Cooperation (JBIC, formally known as OECF). Therefore, this study can provide more comprehensive and satisfactory results to guide a decision-making agency on the future of currently proposed dams.

This JICA Study, "Feasibility Study on Water Resources Development in Rural Area, Morocco," is divided into two phases. For the environmental aspects of the study, an IEE is performed in Phase 1 (February to July 2000), and an EIA is conducted in Phase 2 (August 2000 to July 2001) of the study.

⁴ OECF (1999) Handbook social dimensions ODA loans

IV1.3 International Conventions to be considered

Morocco has signed and/or ratified several international conventions in relation to environmental conservation. The following conventions are important when an EIA is conducted:

- (1) The African Convention for the Conservation of Nature (1968),
- (2) Washington Convention (CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973),
- (3) World Heritage Convention (Convention Concerning the Protection of the World Cultural and Natural Heritage, UNESCO, 1975),
- (4) Ramsar Convention (Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 1980)

List of Ramsar Sites in Morocco

Name of Site	Size (ha)	Location	Date of Sign
Baie de Khnifiss	6,500	Tan Tan	20/06/1980
Lac d'Afenmourir	380	Ifrane	20/06/1980
Merja Sidi Boughaba	200	Kénitra	20/06/1980
Merja Zerga	3,500	Kénitra	20/06/1980

- (5) The Rio Convention (Signed in 1992, Ratified in 1995)
- (6) Convention on Biological Diversity Conservation (Ratified in June 1995)

*Feasibility Study on Water Resources Development in
Rural Area in
the Kingdom of Morocco*

Final Report

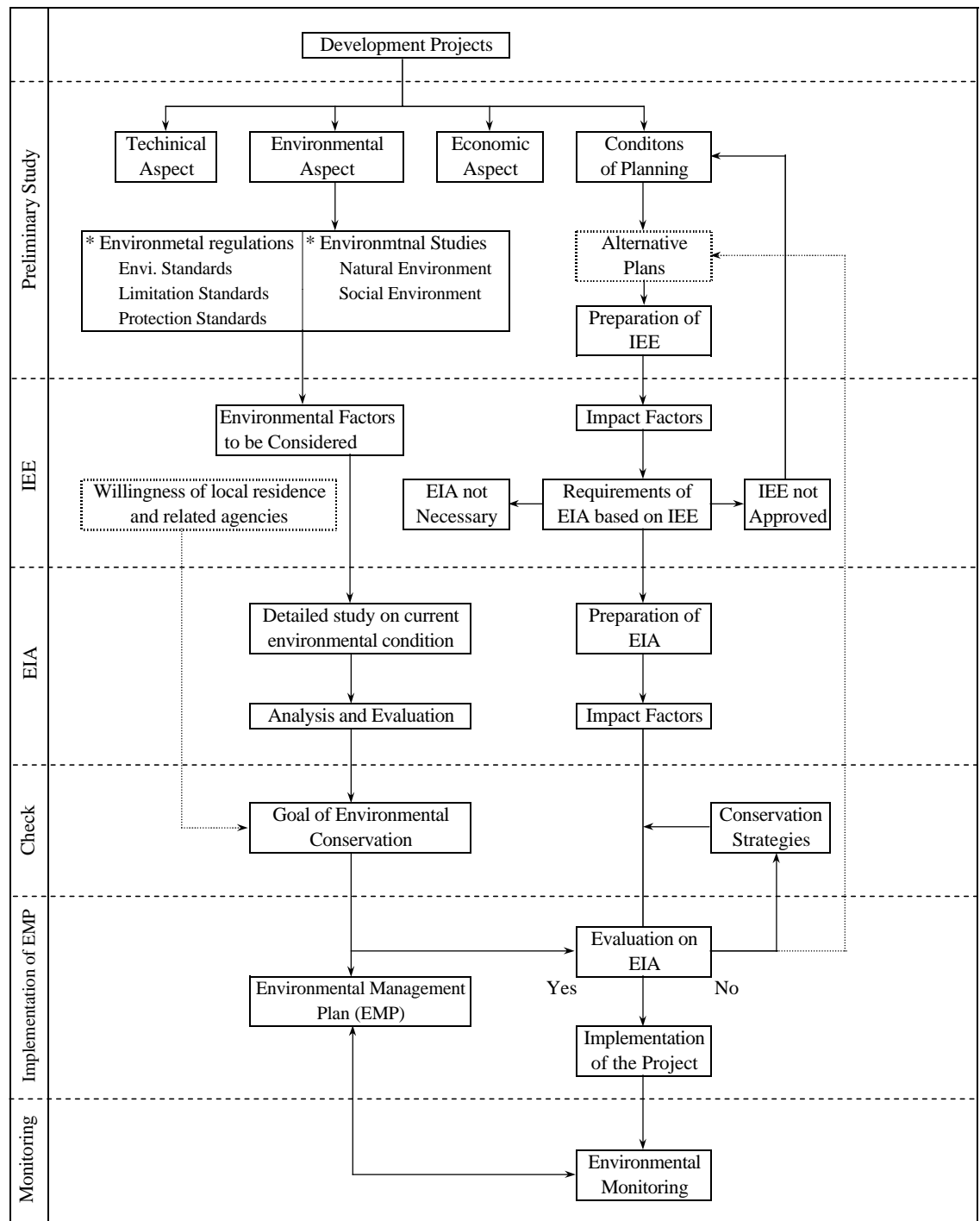
Volume III Supporting Report (1)

Basic Study

Supporting Report IV

Environmental Assessment

Figures

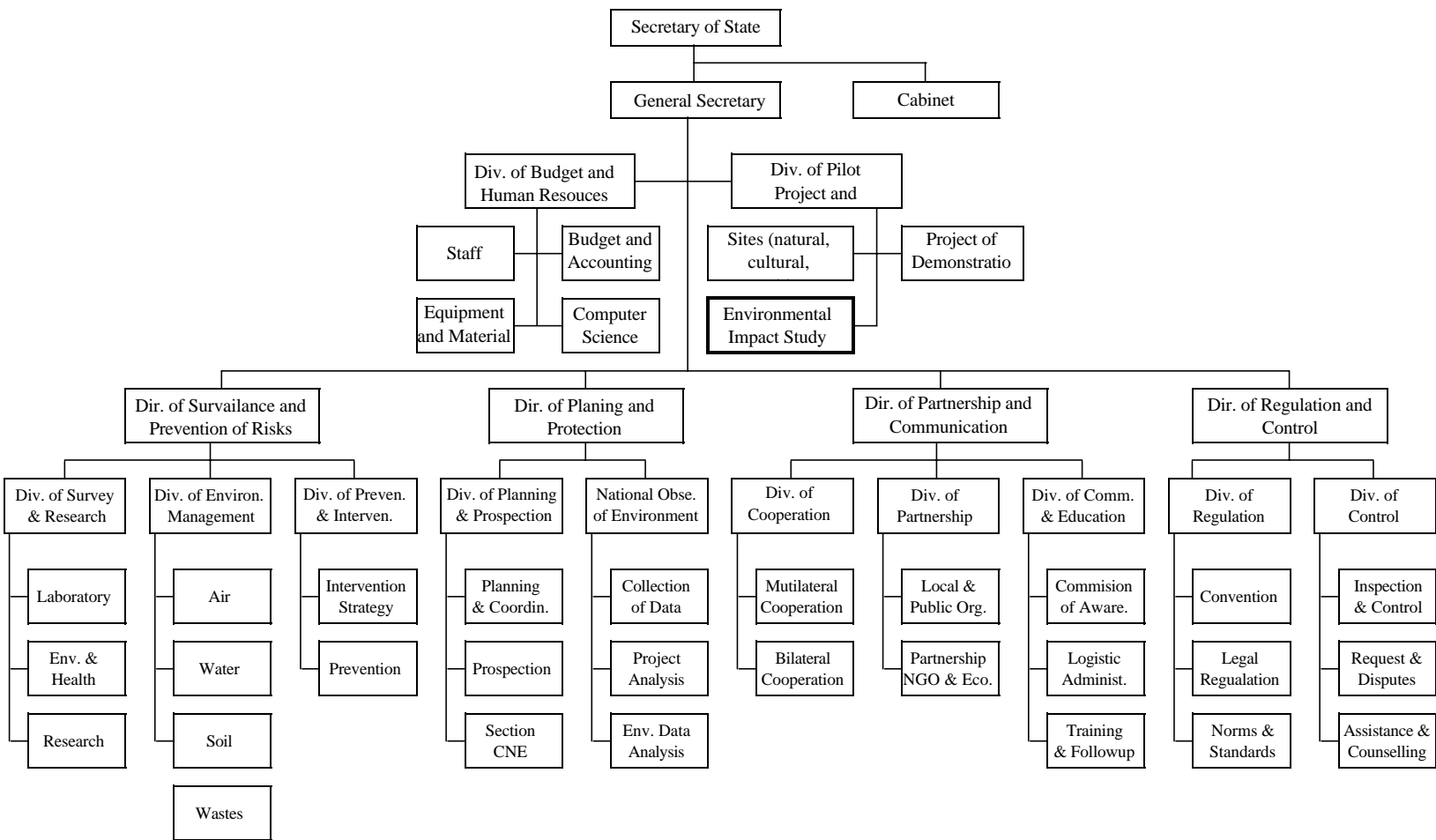


Source) Guidelines for Environmental Considerations on Dam Construction, JICA (Jan. 1994)

FEASIBILITY STUDY ON
WATER RESOURCES DEVELOPMENT
IN RURAL AREA

JAPAN INTERNATIONAL COOPERATION AGENCY

Figure IV1.2.1
General Procedures of Environmental
Considerations by JICA



□ Section that is in charge of EIA

FEASIBILITY STUDY ON
WATER RESOURCES DEVELOPMENT
IN RURAL AREA

JAPAN INTERNATIONAL COOPERATION AGENCY

Figure IV1.2.2
Institutional Structure of Secretariat of
State (Ministry of Environment)

