

## CONTENTS

SERIAL NO.	CONTENTS	PAGE NO.
<b>CHAPTER 1 INTRODUCTION</b>		
1.1	Water Resource Projects	01-1
1.1.1	Understanding The Environmental Clearance Process	01-3
1.2	Need For The Project	01-4
1.3	Dibang Multipurpose Project: Historical Milieu	01-4
1.4	Environmental Management	01-12
1.5	Preferential Aspects Of The Proposed Site	01-13
1.6	Environmental Impact Assessment	01-13
1.7	Environmental Appraisal Procedure	01-14
1.8	Monitoring	01-14
1.9	Need For The EIA Study	01-15
1.9.1	Objectives Of The Study	01-15
1.9.2	Details Of Work Plan Under Each Environmental Component	01-16
1.9.2.1	Water Environment	01-16
1.9.2.2	Land Environment	01-16
1.9.2.3	Biological Environment	01-17
1.9.2.4	Socio-Economic, Health And Cultural Environment	01-18
1.9.3	Additional Studies	01-18
1.10	Outline Of The Report	01-19
<b>CHAPTER 2 METHODOLOGY</b>		
2.1	Study Area	02-1
2.2	Environmental Baseline Study	02-1
2.2.1	Physical Resources Aspects	02-1
2.2.2	Ecological Aspects	02-6
2.2.3	Human Resources And Quality Of Life Values	02-7
2.3	Assessment Of Impacts	02-8
2.3.1	Scoping Matrix	02-8
<b>CHAPTER 3 ENVIRONMENTAL BASELINE STATUS: PHYSICAL ASPECTS</b>		
3.1	General	03-1
3.2	Dibang Catchment	03-1
3.2.1	Landuse/Land Cover Details	03-2
3.2.2	Slope	03-4
3.2.3	Soils	03-4
3.2.3	Capability Classification	
3.2.4	Physiographical, Topographical And Relief Features Of The Catchment	03-5
3.2.5	Dibang Catchment Drainage System And Drainage Pattern	03-8



**EIA Report of Dibang Multipurpose Project**

3.3	Meteorology	03-9
3.3.1	Precipitation Characteristics	03-9
3.3.2	Precipitation Data Network	03-9
3.3.3	Temperature	03-11
3.3.4	Humidity	03-13
3.3.5	Cloud Cover	03-13
3.3.6	Wind	03-13
3.3.7	Special Weather Phenomena	03-14
3.4	Geology Of The Reservoir Area	03-14
3.4.1	Bed Rock Geology	03-14
3.4.1.1	Precambrian Meta-Sedimentaries	03-14
3.4.1.2	Ithun Formation	03-15
3.4.1.3	Hunli Formation	03-15
3.4.1.4	Ultramafics	03-16
3.4.1.5	Igneous Complex	03-16
3.4.2	Structure And Tectonics	03-16
3.4.2.1	Structures	03-20
3.5	Landslides	03-21
3.6	Seismology	03-30
3.6.1	Tectono-Stratigraphic Set Up	03-30
3.6.2	Tectonic Setting	03-32
3.6.3	Seismicity Of The Region	03-33
3.6.4	Stress Distribution / Fault Plane Solution	03-35
3.6.5	Seismic Risk	03-38
3.6.6	Reservoir Induced Seismicity	03-40
3.7	Water Quality	03-42
3.8	Soil Characteristics	03-46
3.8.1	Soil Quality	03-47
3.8.2	Inference	03-51
3.9	Ambient Air & Noise Quality	03-52
3.9.1	Ambient Air Quality	03-52
3.9.2	Noise Quality	03-52
<b>CHAPTER 4</b>		
<b>ENVIRONMENTAL BASELINE STATUS: ECOLOGICAL ASPECTS</b>		
4.1	Terrestrial Ecology	04-1
4.1.1	Forest Types	04-1
4.1.1.1	Assam Valley & Eastern Sub-Montane Semi-Evergreen Forests (2b/C1a And 2b/C1b)	04-1
4.1.1.2	Subtropical Moist Deciduous Forests	04-2
4.1.1.3	East Himalayan Subtropical Wet Temperate Forests (8b/C1)	04-2
4.1.1.4	Subalpine Or Temperate Montane Forests	04-3
4.1.2	Major Floral Species Found In Submergence Area	04-4
4.1.3	Major Floral Species Found In 7 Km Radius Of Reservoir	04-13
4.1.4	Gymnosperms	04-27



**EIA Report of Dibang Multipurpose Project**

4.1.5	Pteridophytes	04-28
4.1.6	Bryophytes	04-29
4.1.7	Algae	04-29
4.1.8	Fungi	04-30
4.1.9	Economic Plants	04-30
4.1.10	Medicinal Plants	04-30
4.1.11	Ornamental Plants	04-31
4.1.12	Edible Plants	04-32
4.1.13	Timber Yielding Plants	04-32
4.1.14	Endangered Species Of Flora	04-32
4.1.15	Phyto-Sociological Studies	04-33
4.2	Fauna	04-41
<b>CHAPTER 5 ENVIRONMENTAL BASELINE STATUS: SOCIOCULTURAL &amp; ECONOMICAL ASPECTS</b>		
5.1	General	05-1
5.2	Plan Of Approach	05-3
5.2.1	Data Processing, Analysis And Report Preparation	05-5
5.2.2	Co-Operation Of Officials And Village Authorities	05-5
5.2.3	Constraints	05-5
5.3	Objective Of Resettlement And Rehabilitation Plan	05-5
5.4	Resettlement And Rehabilitation Interventions	05-6
5.5	Findings Of The Socio – Economic Survey	05-6
5.5.1	Details Of Project Affected Villages	05-7
5.5.2	Occupational Profile	05-14
5.5.3	Infrastructure Availability	05-15
5.5.3.1	Transportation	05-15
5.5.3.2	Educational Facilities	05-16
5.5.4	Live Stock Details	05-19
5.5.5	Drinking Water Source	05-20
5.5.6	Infrastructural Facilities Available In The Affected Villages Or Nearby Villages Or In District	05-20
5.5.7	Patterns Of Population Growth And Working Population	05-21
5.6	Ethnographic Details	05-24
<b>CHAPTER 6 ASSESSMENT OF IMPACTS</b>		
6.1	General	06-1
6.2	Impacts On Land Environment	06-1
6.2.1	Construction Phase	06-1
6.2.2	Operation Phase	06-5
6.3	Impacts On Water Resources	06-6
6.4	Impacts On Water Quality	06-7
6.4.1	Construction Phase	06-7
6.4.2	Operation Phase	06-8
6.5	Impacts On Terrestrial Flora	06-9



## **EIA Report of Dibang Multipurpose Project**

---

6.6	Impacts On Terrestrial Fauna	06-10
6.7	Impacts On Aquatic Ecology	06-13
6.7.1	Construction Phase	06-13
6.7.2	Operation Phase	06-15
6.8	Impacts On Noise Environment	06-17
6.9	Air Pollution	06-19
6.9.1	Pollution Due To Fuel Combustion In Various Equipments	06-19
6.9.2	Emissions From Various Crushers	06-19
6.9.3	Fugitive Emissions From Various Sources	06-20
6.10	Impacts On Socio-Economic Environment	06-20
6.10.1	Construction Phase	06-20
6.10.2	Operation Phase	06-21
6.11	Increased Incidence Of Water-Related Diseases	06-21
<b>ANNEXURES</b>		
Annex 1.1	Project Layout Plan	
Annex 5.1	Household Level Schedule Social Survey for Project Affected Persons (PAPs) getting affected due to the proposed project	

