

## **CONTENTS**

	<b>Page No.</b>
<b>CHAPTER-1      INTRODUCTION</b>	<b>1 - 8</b>
Purpose and scope of the study	1
Geographic Location	2
Physiography	3
Drainage	4
Communication and Transport	5
Climate	6
People and Occupation	6
Approach and Methodology	7
<b>CHAPTER-2      BACKGROUND INFORMATION</b>	<b>9 - 34</b>
Physiographic Divisions	10
The Ranns	10
The low lying Banni plain	11
The Hilly region	12
Drainage characteristics	13
Regional geological set up	14
Mesozoic rocks	15
Tertiary rocks	23
Quaternary deposits	27
Regional tectonic setting	29
<b>CHAPTER-3      GEOLOGICAL SET UP</b>	<b>35 - 45</b>
Mesozoic Rocks	36
Jhurio formation	36
Jumara formation	37
Jhuran formation	38

Bhuj formation	40
Intrusive rocks	41
Tertiary Rocks	41
Madh series	42
Vinjhan stage	42
Quaternary Deposits	42
Alluvial fans	42
Colluvial fans	43
Miliolites	44
Alluvial deposits	45
<b>CHAPTER-4           STRUCTURAL SET UP</b>	<b>46 - 57</b>
Domes along the Kachchh Mainland Fault	47
Domes along the Katrol Hill Fault	48
Flexures and Folds	53
Transverse Faults	55
Igneous Dykes	56
<b>CHAPTER-5           GEOMORPHOLOGY</b>	<b>58 - 68</b>
Geomorphic Divisions	58
Katrol Hill Range	58
Central and eastern plain with scattered hills	60
Northern Hilly Region	60
Western Upland	61
Drainage	62
Erosional Surfaces	63
Pre-Quaternary erosional surfaces	64
Quaternary erosional surfaces	65
Fault Scarp Morphology	66
<b>CHAPTER-6           MORPHOMETRIC ANALYSIS</b>	<b>69 - 83</b>
Morphometric parameters	70
Description of the variables	73
Longitudinal stream profile	75

Stream Gradient, Stream Gradient Index,	
Pseudo Hypsometric Integral	76
Valley cross section	78
River sinuosity parameters	79
Mountain Front Sinuosity	81
Lineament analysis	83
<b>CHAPTER-7                  MORPHOTECTONIC EVOLUTION                                   OF THE BASIN</b>	<b>84 - 98</b>
Pre-Quaternary Tectonic Evolution	87
Quaternary Tectonic Evolution	93
<b>CHAPTER-8                  RESUME</b>	<b>99 - 114</b>
<b>REFERENCES</b>	<b>115-124</b>