

Associate Professor

ACKNOWLEDGEMENT

I take this opportunity with much pleasure to thank all the people who have helped me through the course of my journey towards producing this thesis. This study entitled "Geomorphodynamics & Morpho-ecological Management in the Little Rann of Kutch" has been completed under the ever inspiring guidance, motivation and constant supervision of my esteemed teacher and guide Dr. A. A. Ansari, to whom I sincerely thank. Apart from the subject of my research, I learnt a lot from him, which I am sure, will be useful in different stages of my life.

I would like to express my gratitude to the institution and members of Department of Geography for their support in various ways. I am thankful to Prof. (Mrs.) Rolee Kanchan, Head Department of Geography for her support. I am especially thankful to Dr. Ami Rawal for having my requirement back in her mind and furnishing me with maps, suggestions and provided information regarding sources of weather data. She also introduced me to Dr. Jaymal Rangia, whose contribution is enormous. I am also thankful to Prof. N. R. Dash, Dr. Bindu Bhatt, Mr. Pawan Kr. Shukla, Mrs. Sangeeta Jha, Miss. Vijayata, Mr. Tathagata Ghosh & Mr. Bhagirath Prasad for their help and constant enquiry about my progress. I am also thankful to the office staff of department of Geography for their necessary cooperation.

I also wish to acknowledge the support and suggestions given by Prof. K. C. Tiwari, Department of Geology, M. S. University of Baroda.

I would like to show my appreciation to Dr. J. A. Khan, Director of Forest Department who enabled me to go through the various literatures, reports and working plan available with the department. I would also like to thank the officials and librarian of Gujarat Ecology Commission and Gujarat Institute of Desert Ecology.

This thesis has been made possible by the great support of Dr. Jaymal Rangia, Assistant Professor, Uma Arts College, Gujarat University. He has made available his support in a number of ways. He accompanied me in most of my field visit and provided all sort of logistic support. I would also like to acknowledge the contribution of all his family members and friends who supported me through out my stay, for which I will always be indebted.

I am also indebted to Prof. C.N. Murthy, Head, Department of Applied Chemistry for his enumerable support while carrying out laboratory tests for soil samples. I am also thankful to Mr. R. Murali, research scholar for helping me in the lab work.

I am thankful to Mr. Sandeep Bhagat, who helped me in making maps with GIS Software, the help is indeed grateful.

I would also like to acknowledge various authors and researchers whose views have been referred in this research work.

It is my pleasure to thank my family members who made this thesis possible without whom this project would have been a distant reality. My heartiest thanks goes to my ever inspiring great parents, especially my father, who kept fueling me very often; my younger brother who attended

all sorts of computer related problem with due care. I am also grateful to my elder brother and his family for providing all possible support. Lastly, I am also thankful to my wife and son who understood me during my busy schedule while carrying out this task.

Place: Vadodara

(Vishal Gupta)

PREFACE

This study, with environmental approach is an attempt to understand linkages between geomorphology and environment. It was during the post visit of 2001 earthquake in the Kutch region that the Rann fascinated me, and I was hooked to it. And this somehow influenced me to work on the area.

The Kutch district falls under the semi-arid climatic conditions. The climatic characteristics of area shows transitory phase between the arid and semi humid type. Semi-arid area is often used as an example where there is high level of morpho-dynamic activity. One of the reasons for this is the presence of both precipitation as well as high ambient temperature. Much of its precipitation falls in the form of frequent heavy rain storms. The entire Kutch district on an average receives less than 500mm of rainfall, which still skews towards both the Ranns, making it absolute water stressed district of Gujarat.

Detailed analysis of any geomorphic landscape essentially demands to identify and review the study area in the light of morphoclimatic region