

A
Project Report
On
ESTIMATION OF SOIL LOSS AND SOIL EROSION IN SELECTED
VILLAGES (UNDER THE TARAPUR AND KHAMBHAT TALUKA) BY
SABARMATI RIVER USING RS AND GIS TECHNIQUE
SUBMITTED AS THE PARTIAL FULFILMENT OF DEGREE OF

Masters of Science in Geoinformatics

Submitted By

PRUTHA H. PATEL

ID No: 19GI15

Exam No: 12

Under the Guidance of

MR. VIMAL TIWARI, District Project Officer (DPO), Disaster Management

Department Collectorate, Anand

DR. UNNATI PATEL, Faculty of MSc. Geoinformatics, ISTAR, SPU



Estd. 1999

Institute of Science & Technology
for Advanced Studies & Research

Affiliated to Sardar Patel University

Recognized under Section 2(f) and 12(B) of the UGC Act, 1956

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UNDERTAKING

I, Prutha H Patel, Of Institute of Science and Technology for Advance Studies and Research, Vallabh Vidyanagar here by undertake that the work presented in the dissertation project report entitled “Estimation of Soil Loss and Soil Erosion in Selected Villages (Under the Tarapur and Khambhat Taluka) By Sabarmati River Using RS And GIS Technique.” Comprise the result of independent and original work carried out by me under the supervision of Mr. Vimal Tiwari (District Project Officer) for the partial fulfilment of the award of the degree of MSc Geoinformatics of Sardar Patel University, Vallabh Vidyanagar.

I further declare that this work will not be published in future without the consent of supervisor.

Prutha H Patel

Date: 19th June 2021

ACKNOWLEDGEMENT

It gives me immense pleasure submitting this project report towards successful completion of my study. This project has given me an opportunity to think, implement and interact with various aspects of technology in the field of Remote sensing and GIS.

I greatly appreciate and thankful to my external project guide **Mr. Vimal Tiwari** (District Project Officer), for granting me the permission to carry out my project work at Disaster Management Department, Anand.

I am very much grateful to my college guide **Dr. Unnati Patel** (Head of Department M.SC. Geoinformatics, ISTAR), for her help and support whenever and whenever I needed. Her enthusiasm in learning new applications for the field always influenced me find new possibilities.

My parents are my sole motivators, this journey wouldn't have been possible without them. Any number of words are less to thank them.

**INSTITUTE OF SCIENCE & TECHNOLOGY
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CERTIFICATE

This is to certify that Mr. / Miss **PRUTHA HARESHBHAI PATEL** Exam Number **12**, student of M.Sc. Geoinformatics, Institute of Science & Technology for Advanced Studies & Research, Vallabh Vidyanagar, Gujarat has carried out his/her 4th semester project work - (PS04CGIN21) in M.Sc. Geoinformatics from 19/12/2020 to 30/04/2021 as a partial fulfilment of Master of Science in Geoinformatics affiliated to Sardar Patel University.

Dr. Unnati A Patel
Asst.Professor
M.Sc. Geoinformatics

Dr. Nirmal Kumar J.I.
Principal



THE COLLECTOR OFFICE
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Ph. No. 02692 24322

CERTIFICATE

I have pleasure in certifying that Ms. PRUTHA PATEL has been associated with Gujarat State Disaster Management Authority during the period of December-2020 to April-2021 in academic year 2020-21 to do her project "ESTIMATION OF SOIL LOSS AND SOIL EROSION IN SELECTED VILLAGES (UNDER THE TARAPUR AND KHAMBHAT TALUKA) BY SABARMATI RIVER USING RS AND GIS TECHNIQUE" under the guidance of Mr. Vimal Tiwari, District Project Officer, Disaster Management Department Collectorate, Anand as a part of her course 'Master of Geoinformatics' – 2nd Year, which she is pursuing from Institute of Science & Technology for Advanced Studies & Research, Vallabh Vidyanagar, Anand, Gujarat.

She has carried out many activities like to determine and analyze soil erosion as well as to monitor the river course change in the different years for some villages under the Tarapur and Khambhat Taluka, Anand District using GIS techniques and Remote Sensing datasets. She has also collected the detail about a flood protective scheme at a village Nabhoi and Rinza and picture showing which type of erosion occurs there.

PRUTHA is sincere and hard working. I am sure she will be success in whatever assignment she takes up in future.

We wish her all the best in her career.

(Vimal Tiwari)
District Project Officer
Disaster Management Branch
Anand.