INFRASTRUCTURE VULNERABILITY MAPPING OF EARTHQUAKE HAZARD USING GIS IN DHANKUTA MUNICIPALITY, NEPAL

A Thesis Submitted to the Central Department of Geography, Faculty of Humanities and Social Sciences in Partial Fulfillment of Requirement for the Master's Degree in Geography



Submitted By LAXMI BASNET Central Department of Geography Tribhuvan University Kirtipur, Kathmandu, Nepal August, 2011



TRIBUHUVAN UNIVERSITY Faculty of Humanities and Social Sciences University Campus

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RECOMMENDATION LETTER

This is to certify that the thesis submitted by Mis. Laxmi Basnet, entitled "*Infrastructure Vulnerability Mapping of Earthquake Hazard Using GIS in Dhankuta Municipality, Nepal*" has been prepared under my supervision in the partial fulfillments for the degree of Master of Arts in Geography. I recommend the thesis to the evaluation committee for examination.

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Abbreviation

AC	Alternative Current
BCDP	Building Code Development Project
CBS	Central Bureau of Statistics
CDG	Central Department of Geography
DC	Direct Current
DM	Dhankuta Municipality
DMG	Department of Mines and Geology
DOS	Department of Survey
DPNET	Disaster Preparedness Network Nepal
DUDBC	Department of Urban Development and Building Construction
ERA	Earthquake Risk Assessment
FEMA	Federal Emergency Management Agency
GDP	Gross Domestic Product
GIS	Geographical Information System
HAZUS	Hazard United State
HH	Households
IDNDR	International Decade for Natural Disaster Reduction
INGO	International Non- Government Organization
ISRC	Intensive Study and Research Center
ITC	International Institute of Geo-information Science and Earth
IIC	Observation
JICA	Japan International Cooperation Agency
KV	Kilo Voltage
MMI	Modified Mercally Intensity
NEA	Nepal Electricity Authority
NGO	National Government Organization
NGIIP	National Geographic Information Infrastructure Programme
NIBS	National Institute for Building Sciences
N	New
NO	Numbers
N.S	North Sunsari
NSDRM	National Strategy for Disaster Risk Management
NSET	National Society for Earthquake Technology
OALD	Oxford Advance Learners Dictionary
OECD	Organisation for Economic Cooperation and Development
PGA	Peak Ground Acceleration
PGD	Peak Ground Deformation
P	Private
PP	Pages

RADIUS	Risk Assessment tools for Diagnosis of Urban Areas Against Seismic
	Disasters
RM	Reinforced Masonary
RCC	Reinforce Cement Concrete
RS	Remote Sensing
RUPP	Rural Urban Partnership Programme
SA	Spectral Acceleration
SD	Spectral Displacement
SEDM	Study on Earthquake Disaster Management
SLARIM	Strengthening Local Authorities in Risk Management
T.U.	Tribhuvan University
UN	United Nations
UNDP	United Nations Development Program
VDC	Village Development Committee