



# Satellite Geodesy and Global Navigation Satellite System (GNSS)



## Introduction to Geodetic Objectives





**Mission Statement :** *“To establish precise and accessible geodetic infrastructures”*



**Er. Mahesh Thapa**  
MSc. in Geospatial Technologies  
Survey Officer  
Geodetic Survey Branch, Survey Department

*mahesh100thapa@gmail.com,*  
*mahesh.thapa@mail.gov.np*

Er. Mahesh Thapa, Geodetic Survey Division, Survey  
Department mahesh100thapa@gmail.com  
mahesh.thapa@mail.gov.np

# GEODESY

- Etymology : from Greek *geodaisia* "division of the earth"
- Science of Measurement and Mapping of Earth Surface
- Science of Measuring and Monitoring the size and shape of the Earth

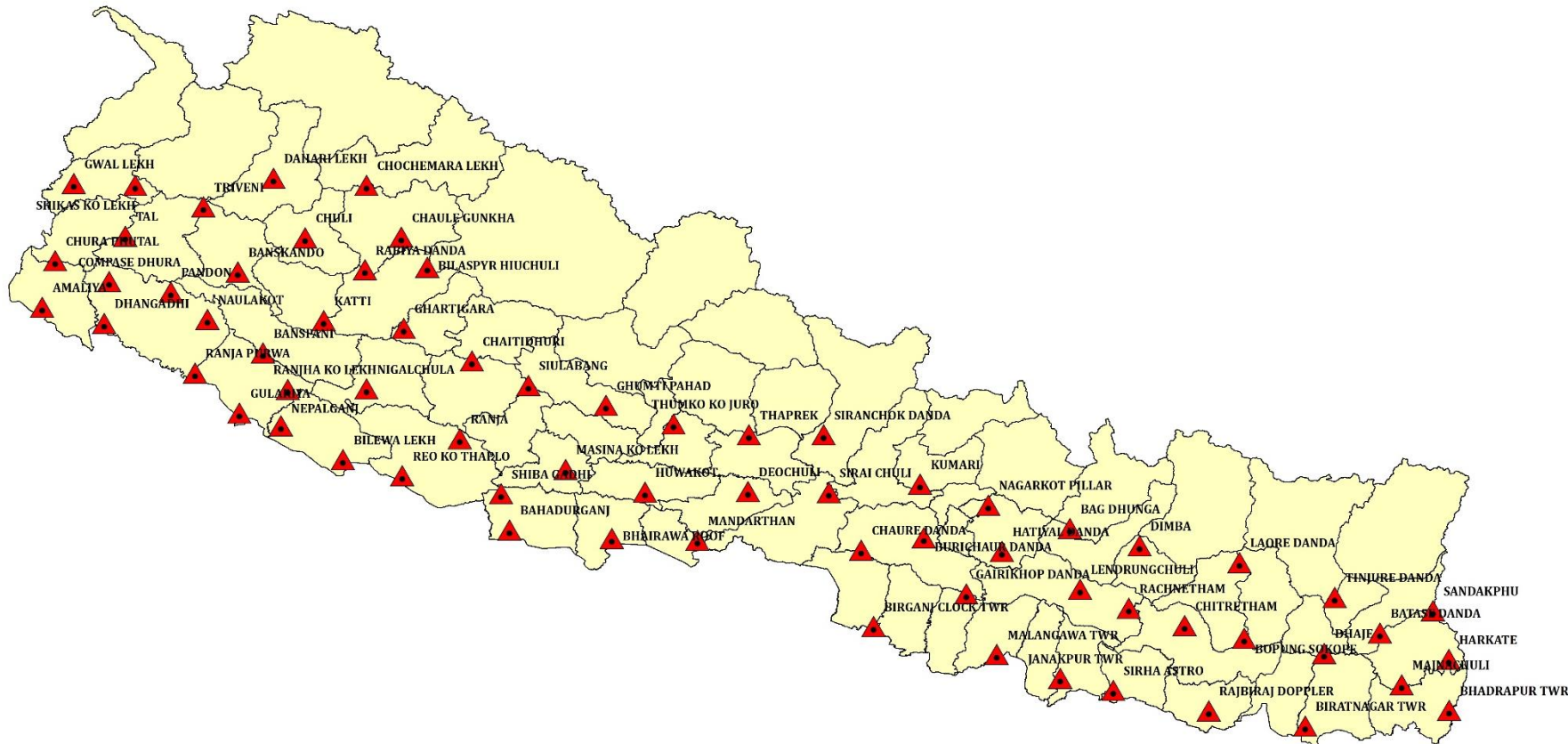
# Geodetic objectives/goals/problems

- determination of precise global, regional and local three-dimensional positions (e.g. the establishment of geodetic control)
- determination of Earth's gravity field and linear functions of this field (e.g. a precise geoid)
- measurement and modeling of geodynamical phenomena (e.g. polar motion, Earth rotation, crustal deformation)



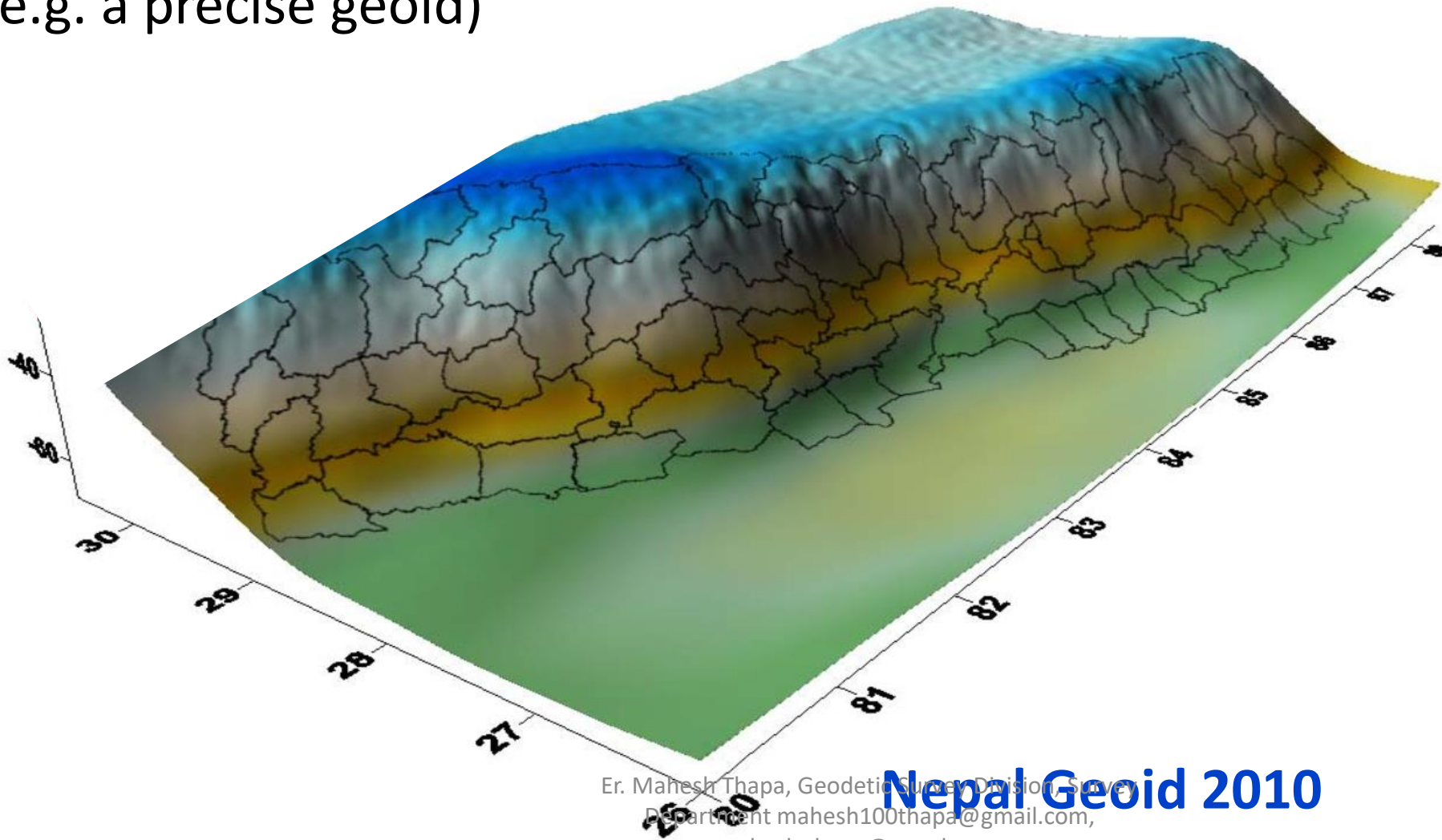
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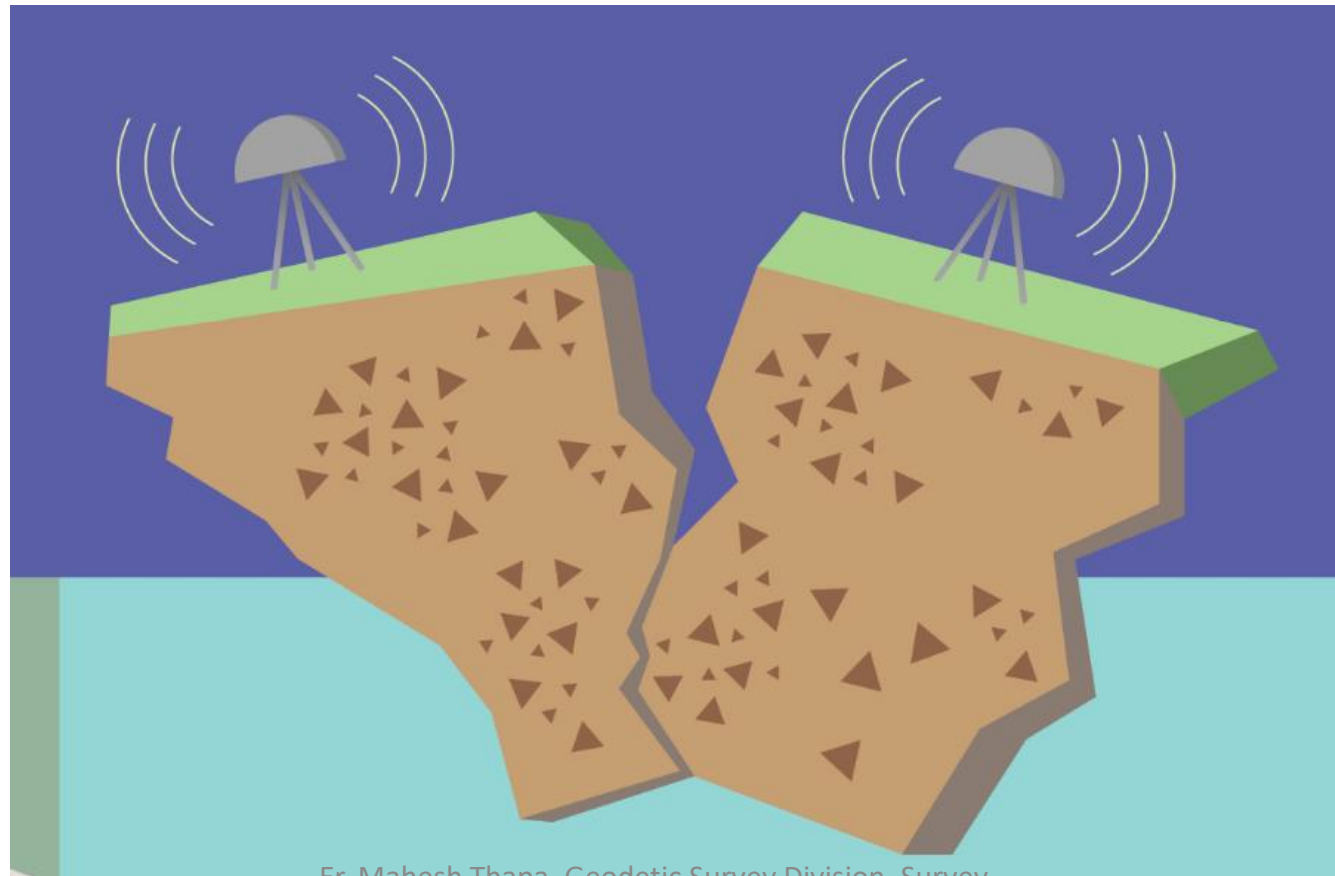


Er. Mahesh Thapa, Geodetic Survey Division, Survey  
Department [maresh100thapa@gmail.com](mailto:maresh100thapa@gmail.com),  
[maresh.thapa@nepal.gov.np](mailto:maresh.thapa@nepal.gov.np)

**Nepal Geoid 2010**

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Department mahesh100thapa@gmail.com,  
mahesh.thapa@nepal.gov.np

# Classification of Geodesy

## Geometric Geodesy

Concerned with Size, Shape

## Physical Geodesy

Concerned with gravity field



## Satellite Geodesy

Concerned with Satellites and use of these for geodetic purposes

## Geodetic Astronomy

Concerned with celestial bodies for geodetic purposes



Task : Enlist 5 activities that you could use Geodesy in your domain and briefly describe them. Try to relate the activities with geodetic activities. Present one of these tasks.

Geography

Academic and Research

Nepal Electricity Authority

Survey and Mapping

# Questions !!!

Er. Mahesh Thapa, Geodetic Survey Division, Survey  
Department mahesh100thapa@gmail.com,  
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