

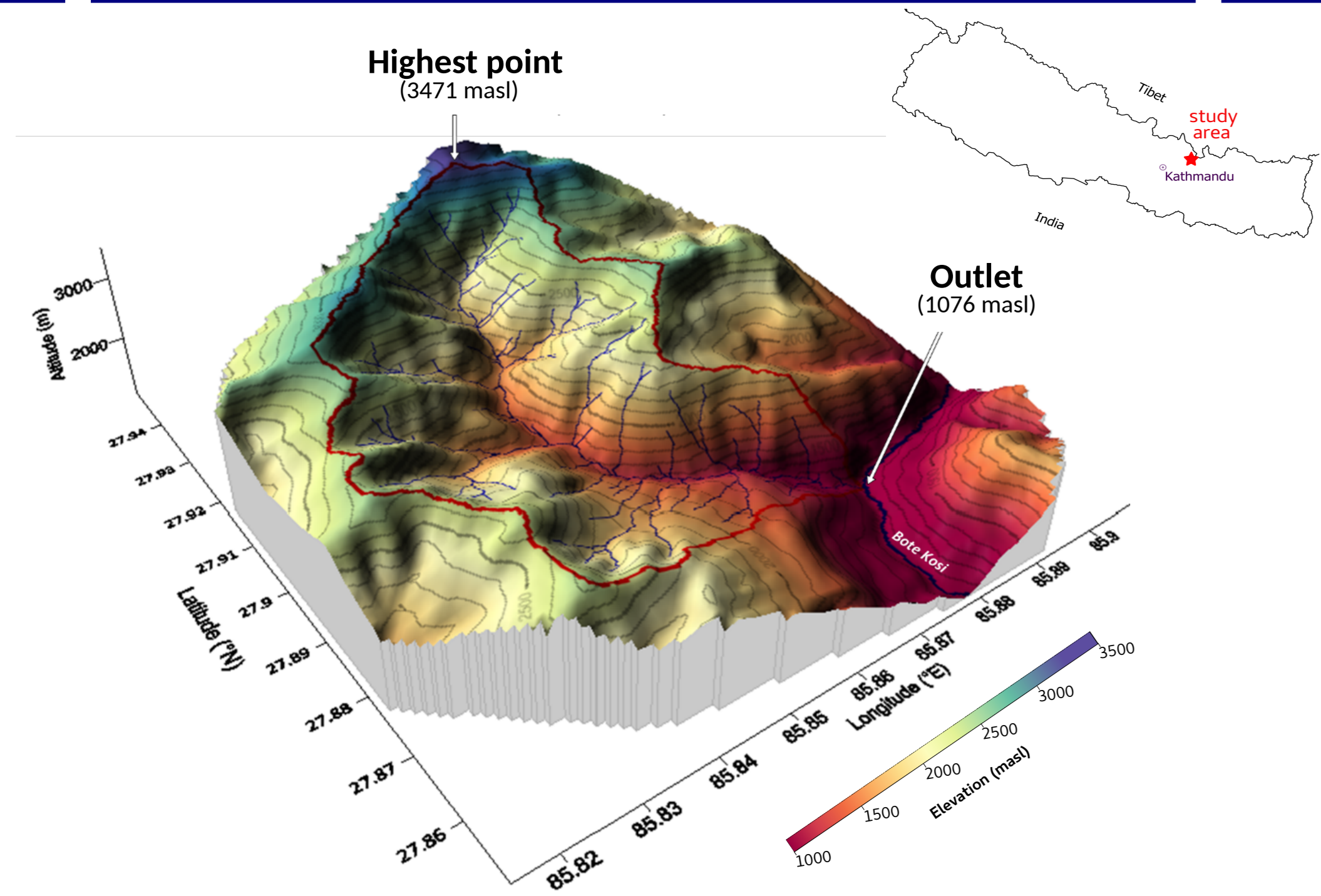
Link between groundwater storage and landscape changes of a mountainous catchment: the Kahule Khola watershed (Nepal, Himalayas)



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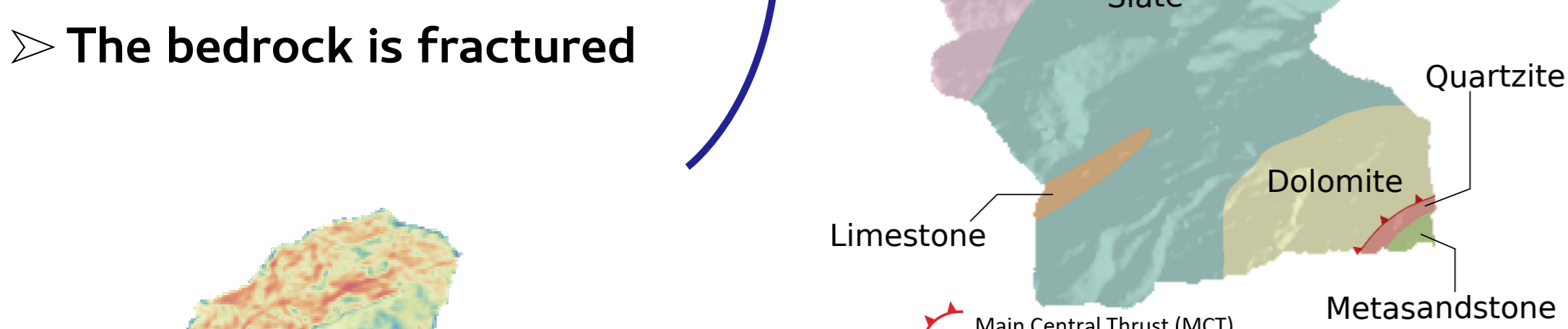


Description of the study area

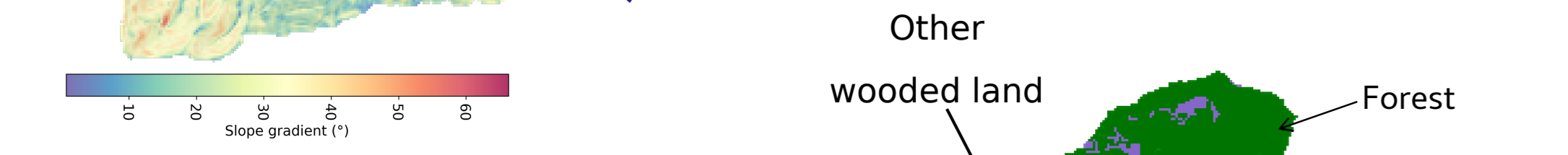


- CLIMATE**
- Climate is influenced by altitude and rainfall monsoon.
 - Rainfall monsoon represents >70% of the water budget.
 - In Nepal, rainfall monsoon is the primary driver of groundwater recharge.
 - Up to 2/3 of groundwater flow to rivers.

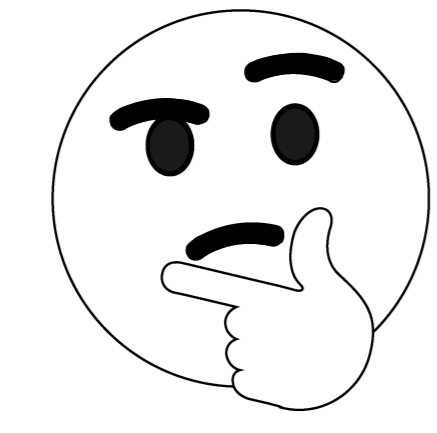
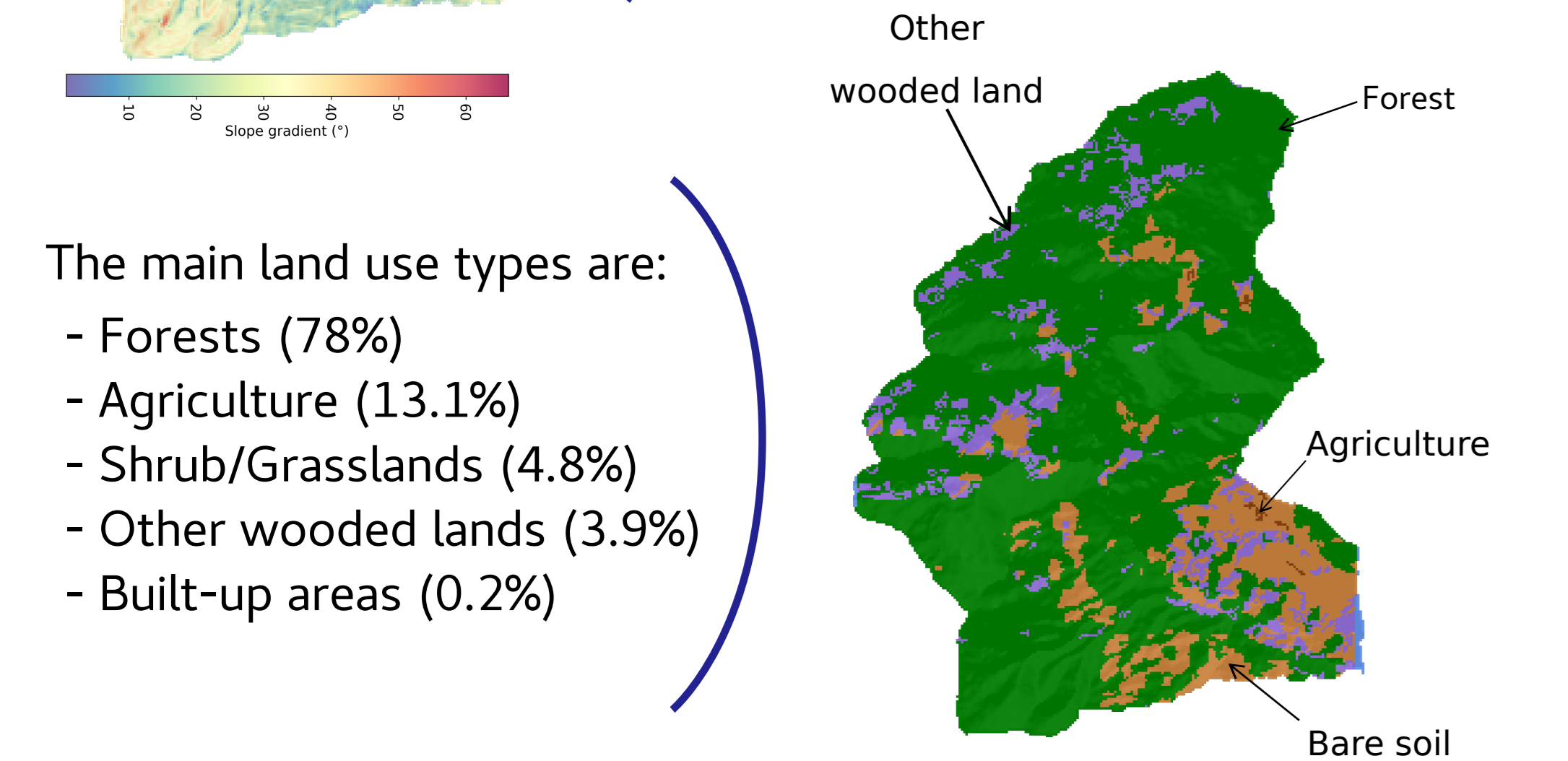
The active fault MCT delineates:
 - metamorphic rocks (north)
 - sedimentary rocks (south)



- The bedrock is fractured
- Slope gradient is ranged from <math><1^\circ</math> to - Landscape is shaped by landslides and debris flows.
 - Topography follow a ridge-hollow-ridge morphology with steep slopes.

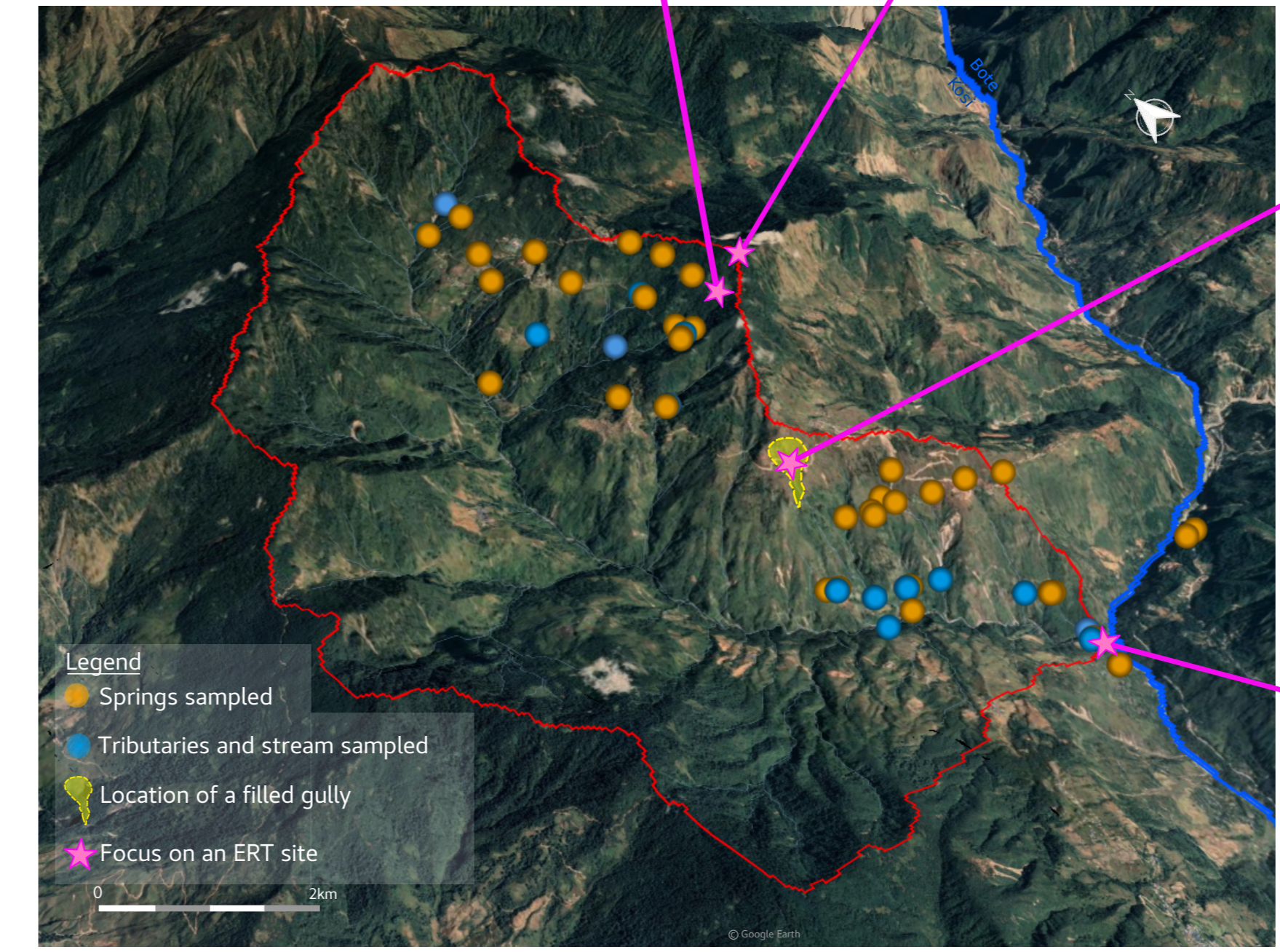
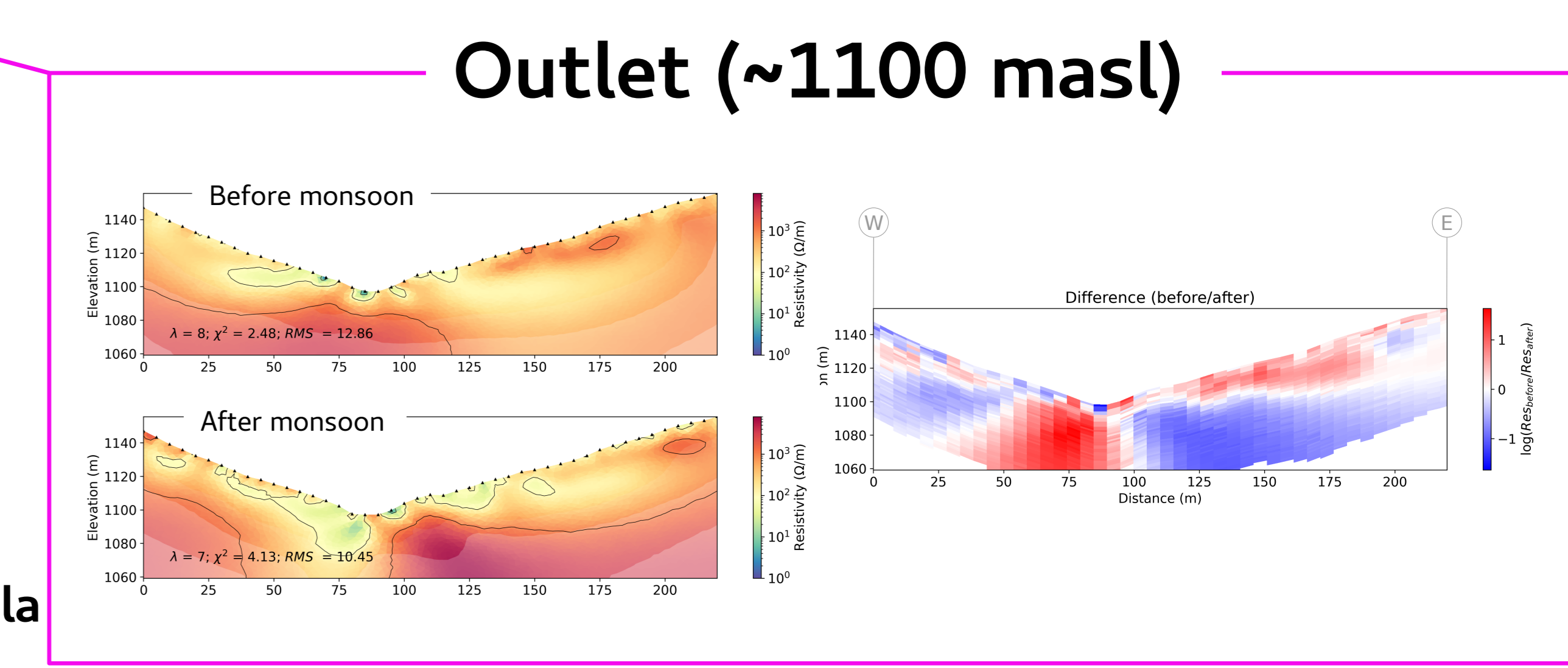
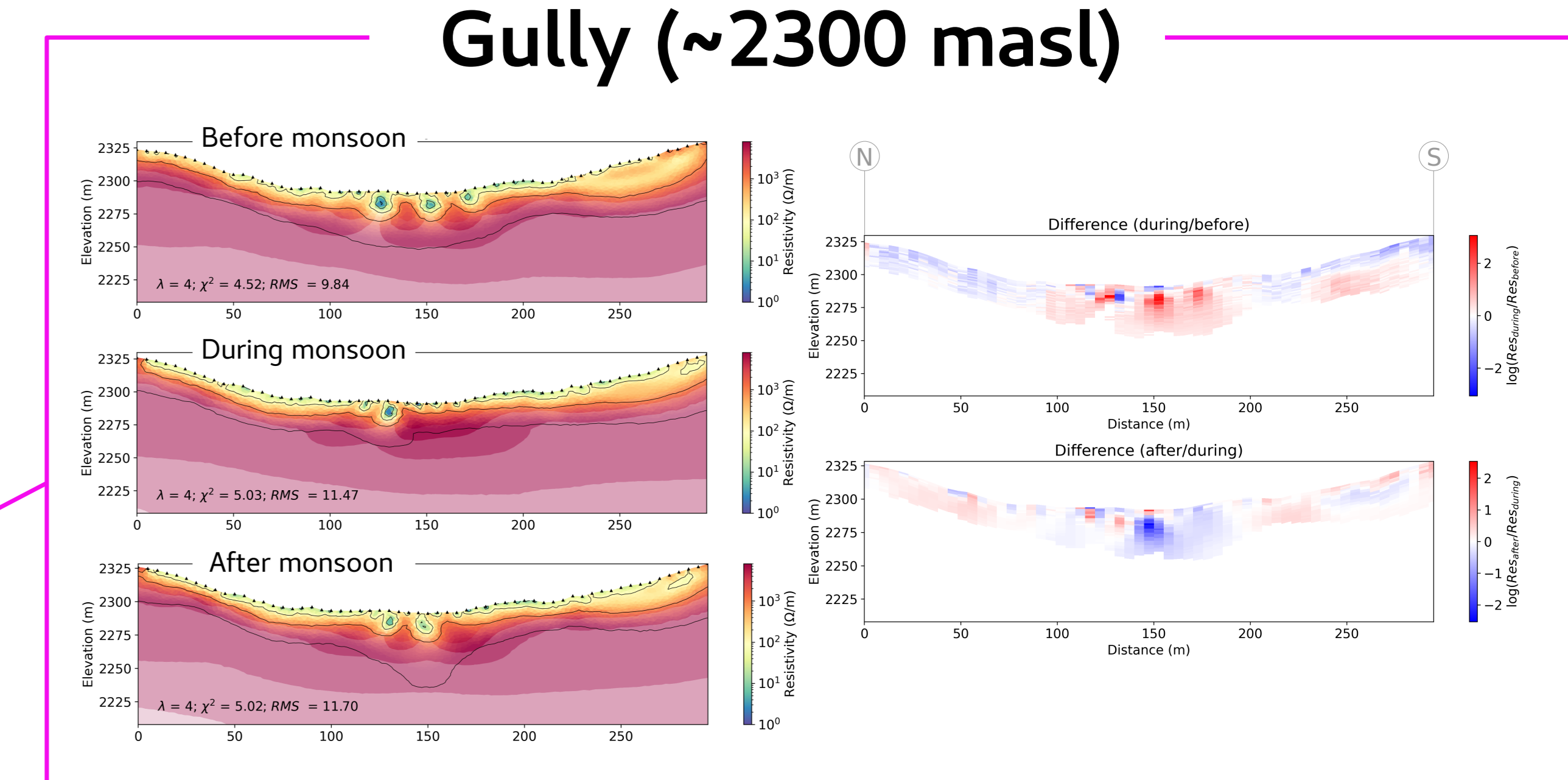
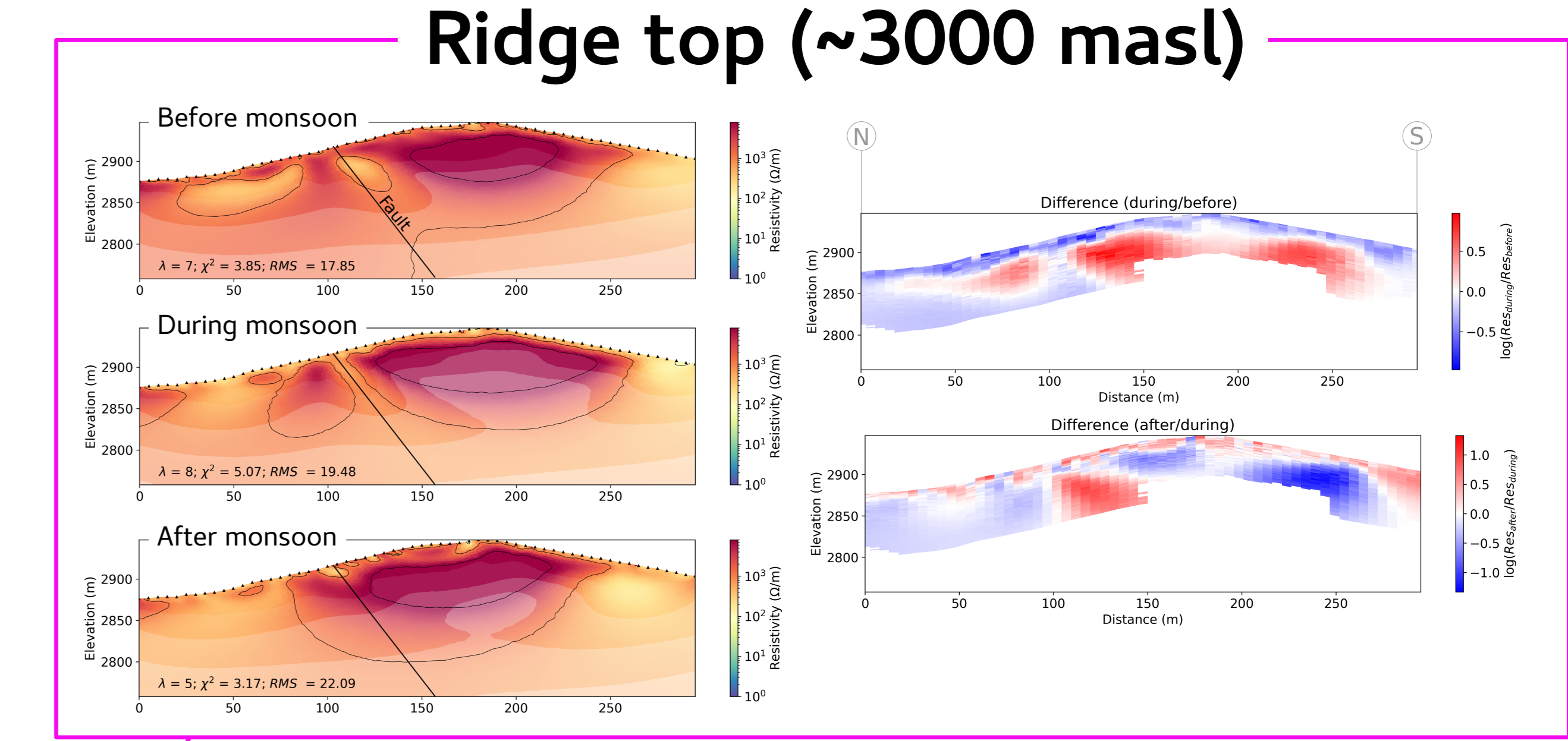
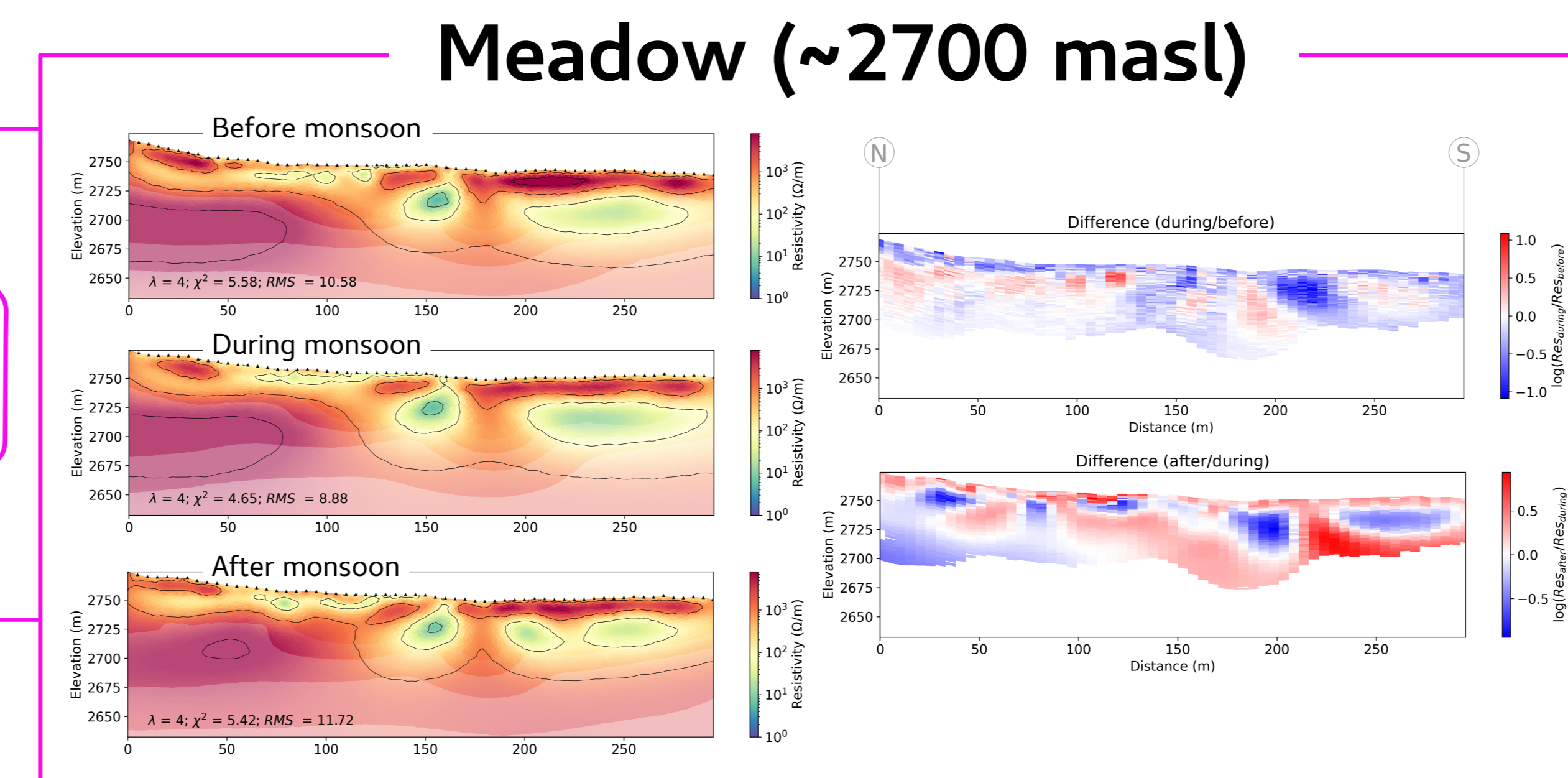
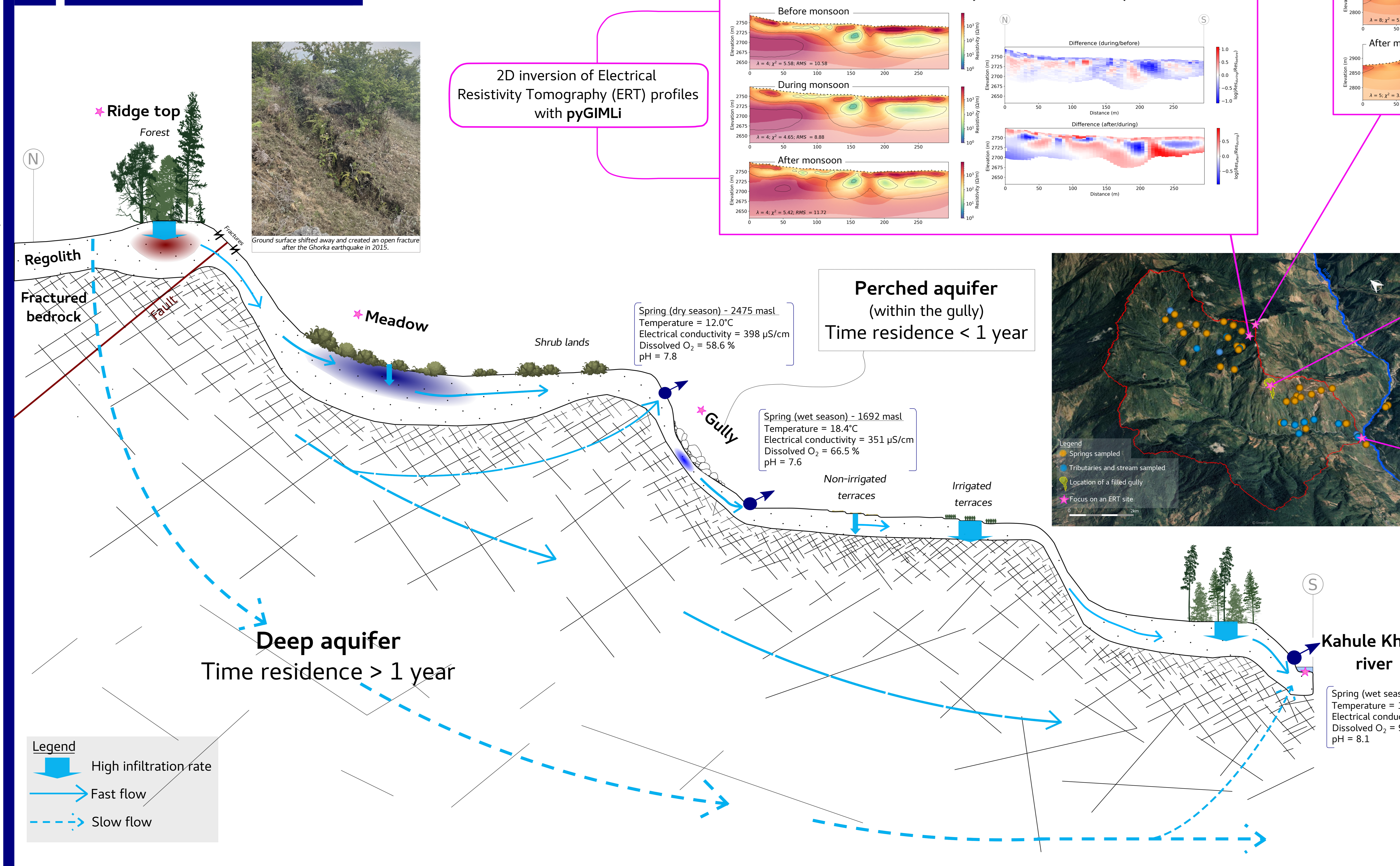


- The main land use types are:
- Forests (78%)
 - Agriculture (13.1%)
 - Shrub/Grasslands (4.8%)
 - Other wooded lands (3.9%)
 - Built-up areas (0.2%)



How to characterize the subsurface infiltration, recharge, and storage mechanisms of a mountainous hydrogeological system?

Results & Conceptual model



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