

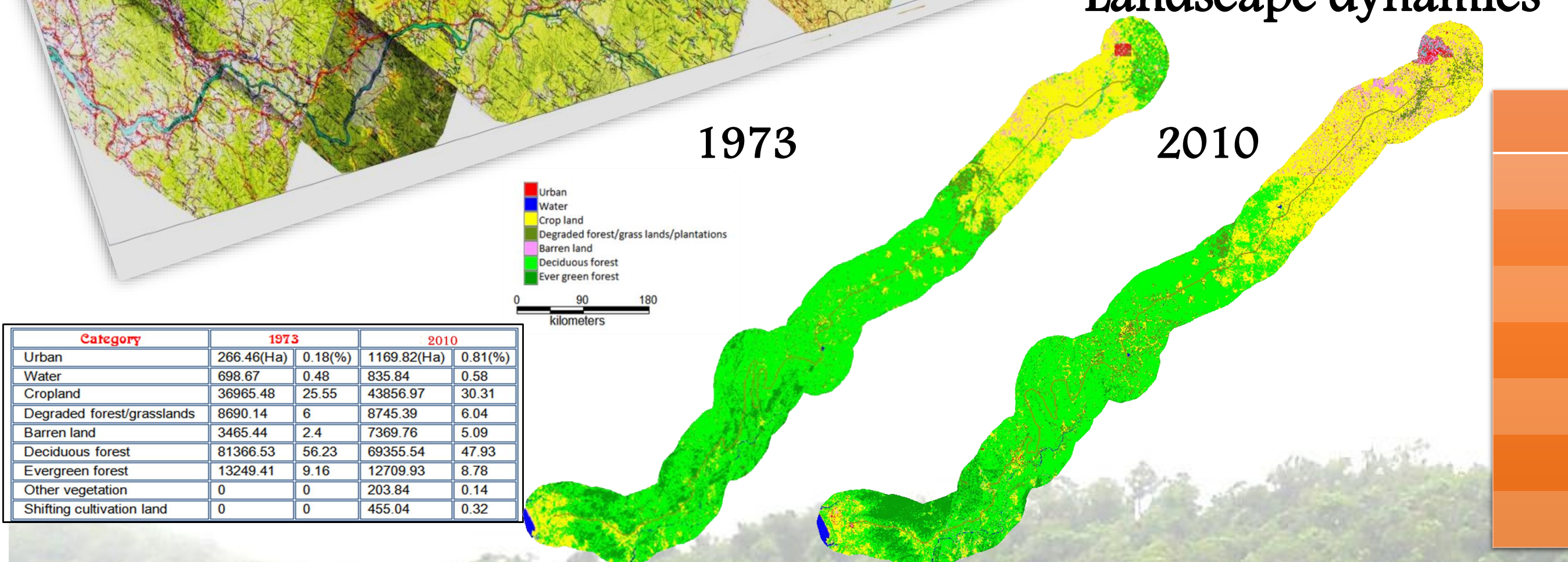
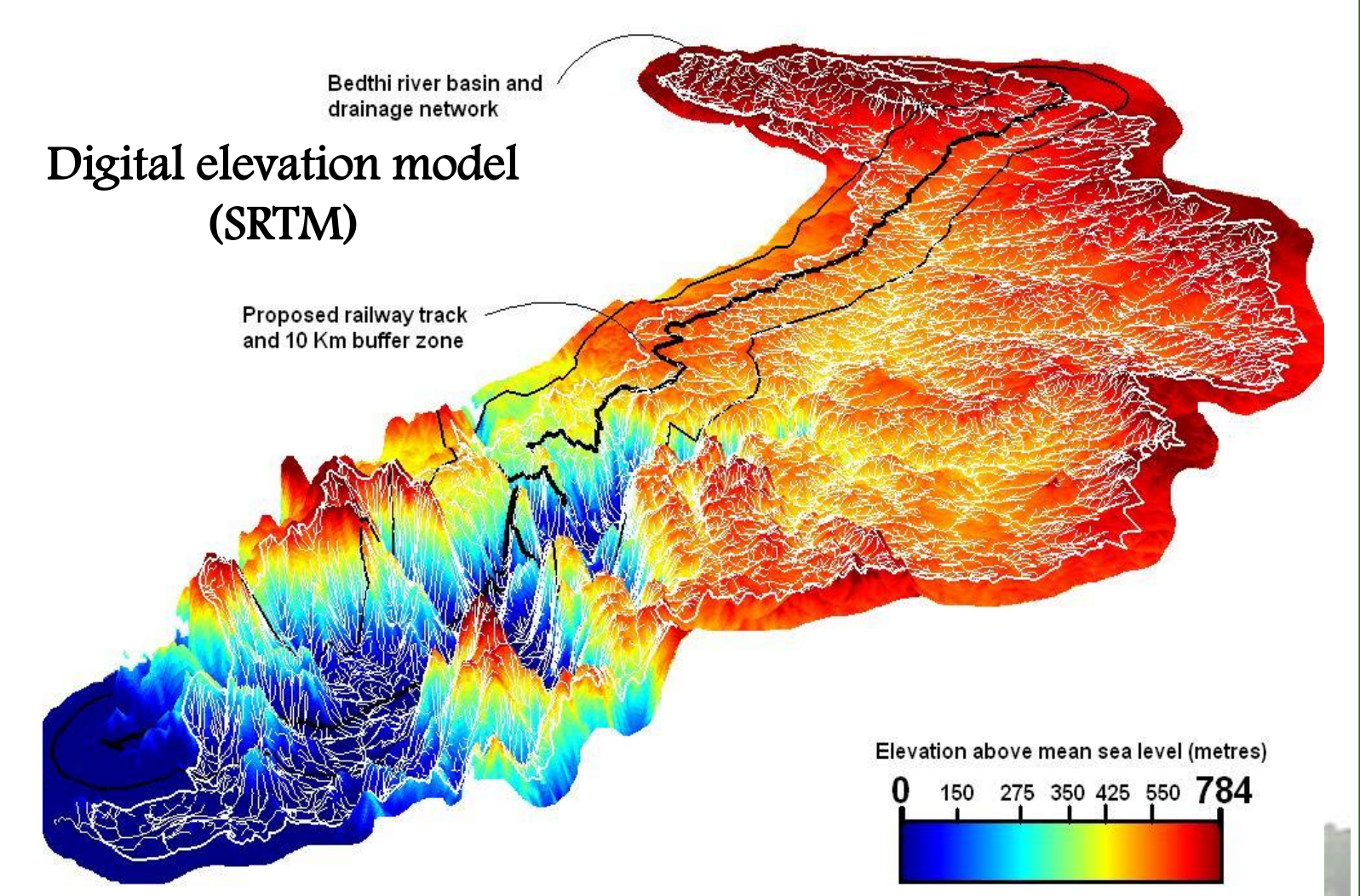
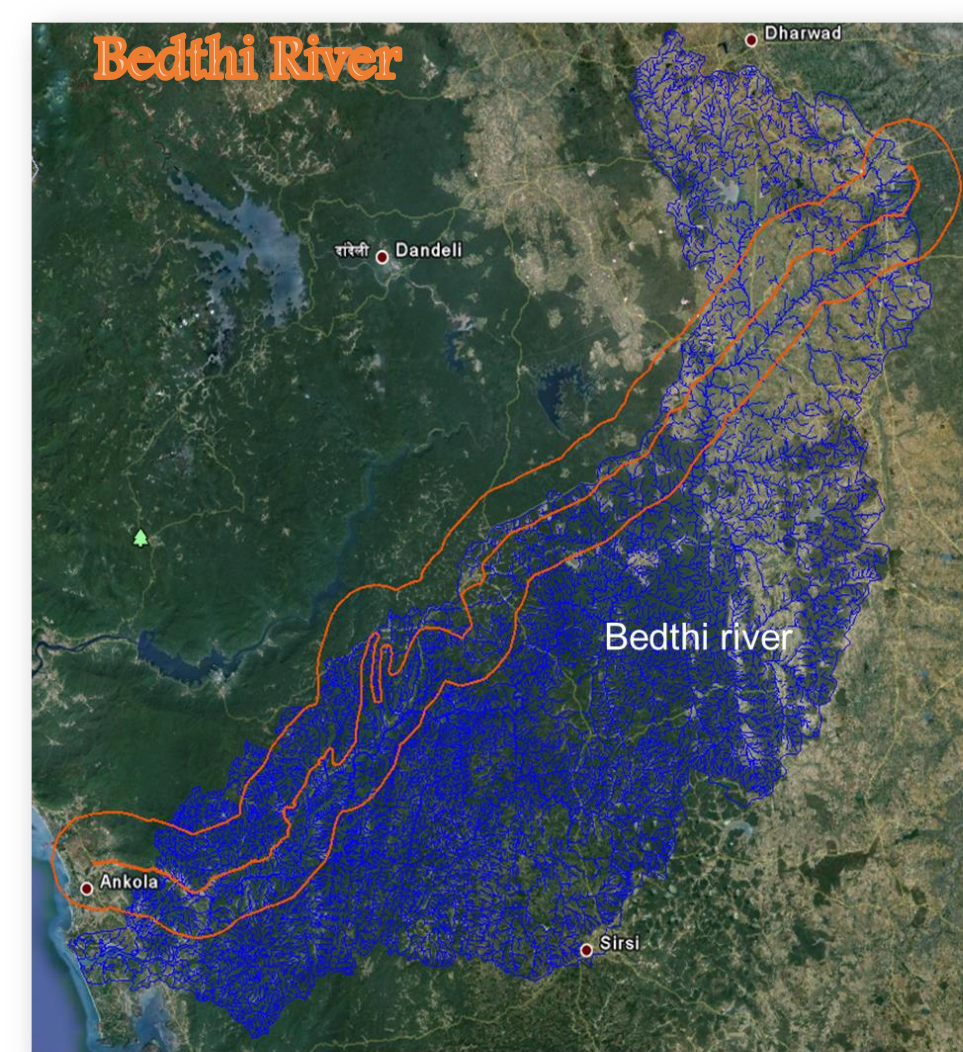
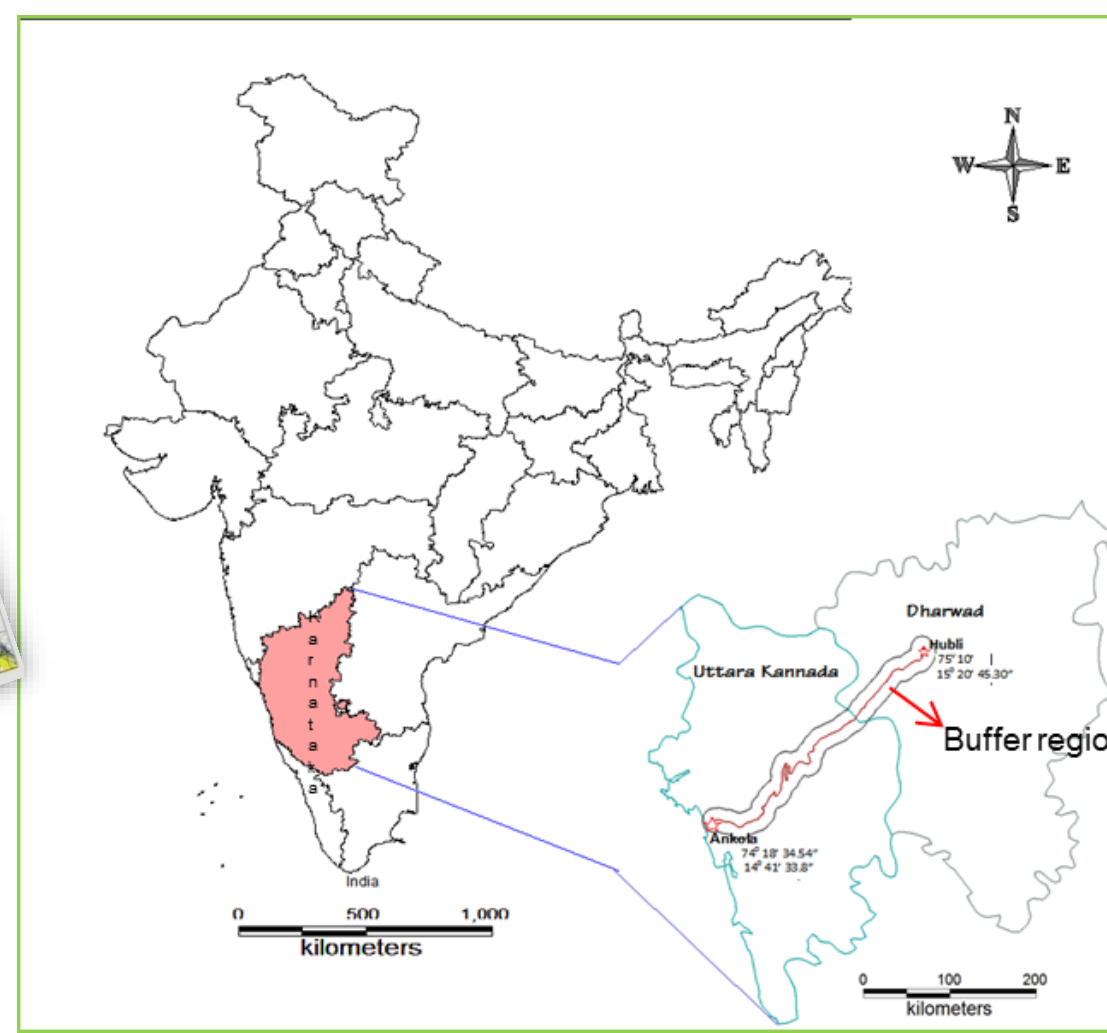
Biological Diversity, Ecology and Environment Impact assessment

with Mitigation measures of the proposed Hubli-Ankola New Broad Gauge Railway line

Energy and Wetland Research Group, Centre for Ecological Sciences,
Indian Institute of Science, Bangalore; Web: <http://wgbis.ces.iisc.ernet.in/energy/>

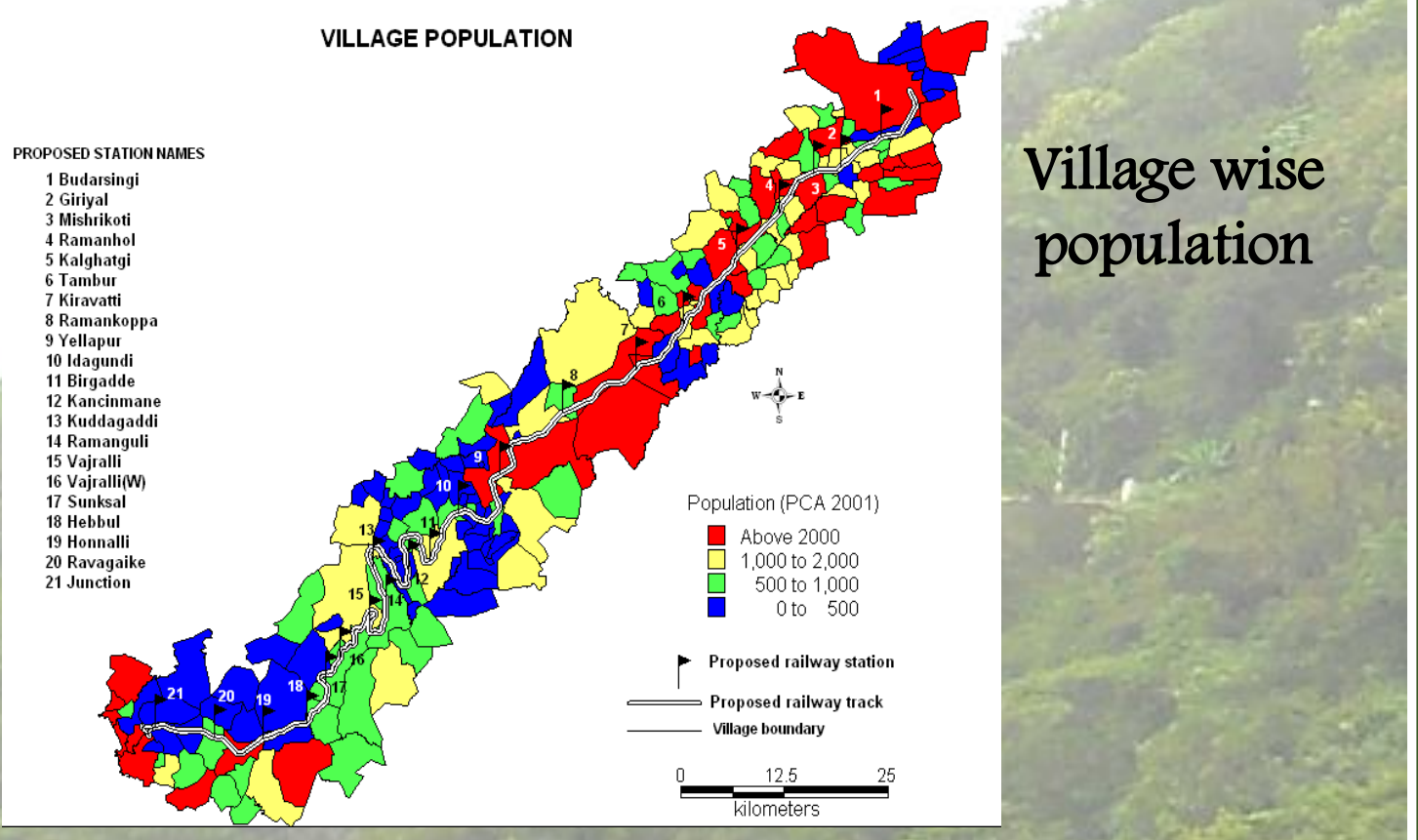


Hubli to Ankola proposed railway



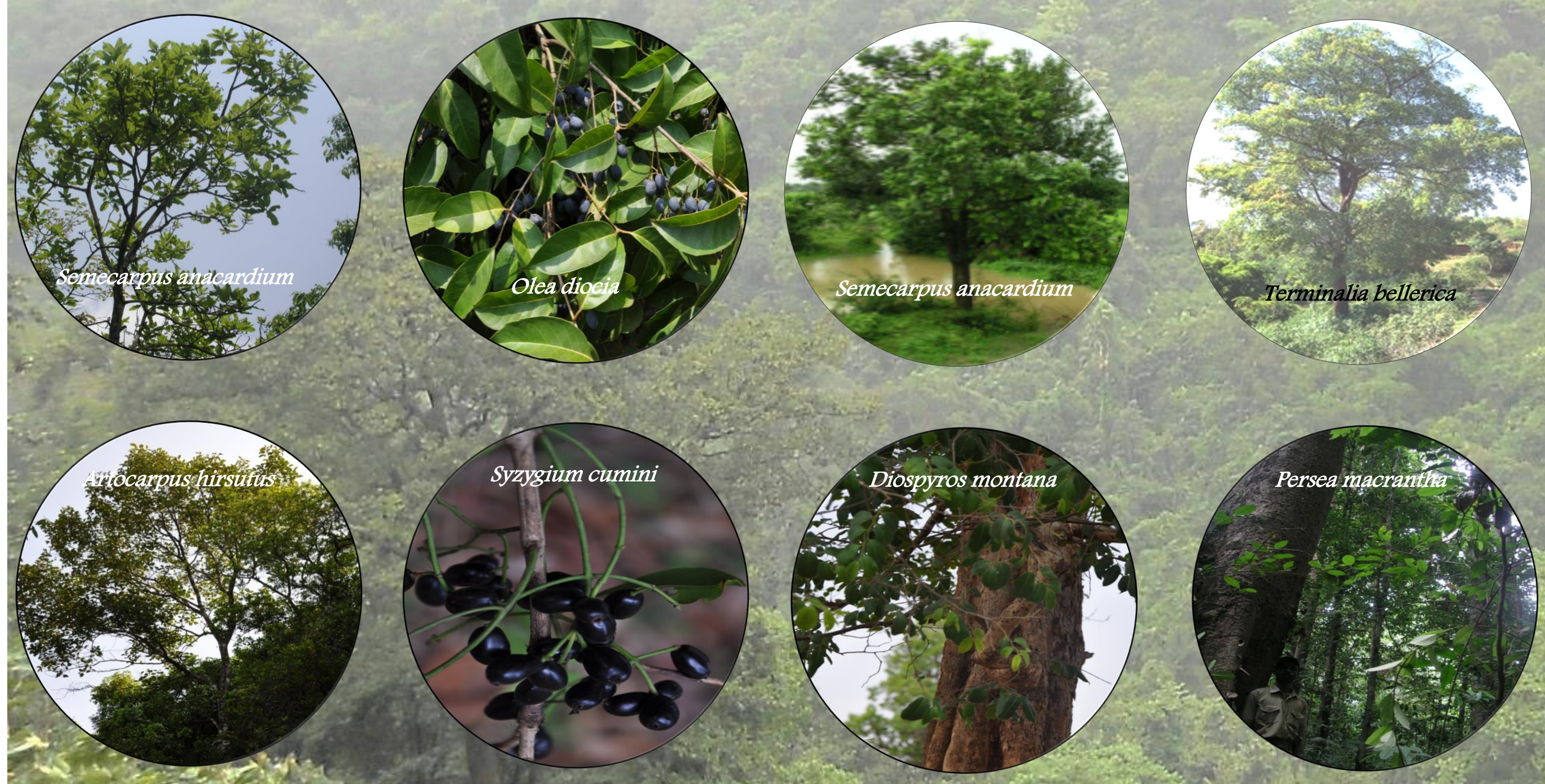
Landscape dynamics

Length of the track	168.3 km
Plain section	105.17 km
Ghat section	63.11 km
Total length in cutting	68.73 km
Total number of Bridges	329
Total length in Tunnels	21.88 km
No. of Tunnels	29
Length of Longest Tunnel	3.53 km



Category	1973	2010
Urban	296.46(14)	1169.82(14)
Water	698.67	835.64
Cropland	13095.48	13264.97
Degraded forest/grasslands	8890.14	8745.38
Barren land	3485.44	1789.76
Deciduous forest	81198.93	89355.54
Evergreen forest	13249.41	12709.93
Other vegetation	0	203.84
Shifting cultivation land	0	455.04

Flora diversity



Faunal diversity



Elephant movement path

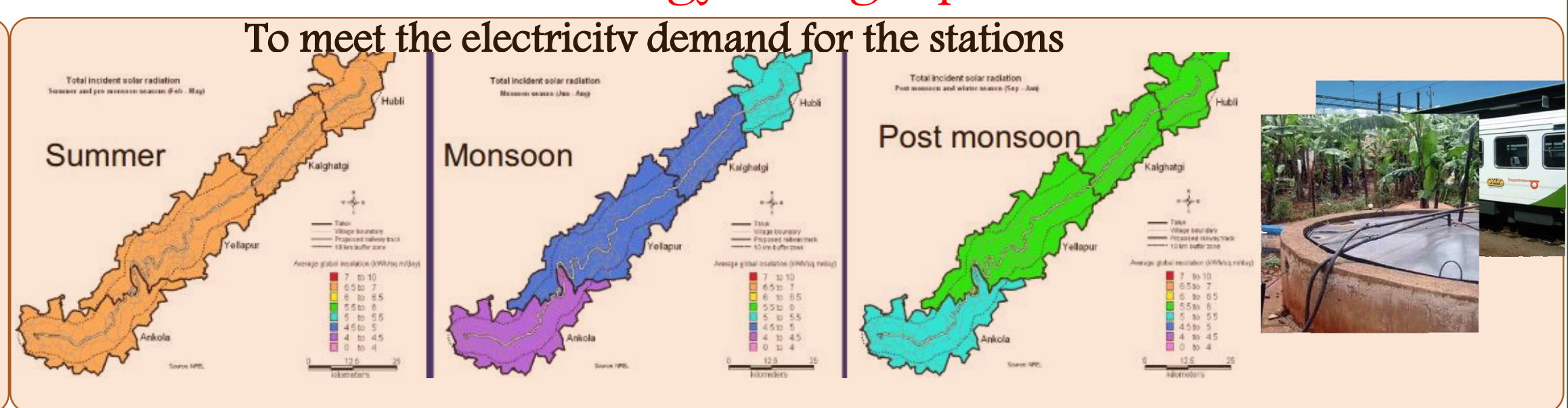


Proposed new alternatives

From 76 km Sabgeri to 86 km Idugundi station
Reason: Reserved forest with rich species diversity

From 114 km Kodalgadde to 134 km Vajralli station
Reason: Dense mixed ever green forest – landslide prone area; avoid forest fragmentation

Solar energy & Biogas potential



Managing Elephant movement path

- ❖ Cover the embankments – to look like natural surface
- ❖ Enrich the region with native species of plants – food and fodder for elephants
- ❖ Sign boards for drivers
- ❖ Speed limit 20 kmph in this region
- ❖ Prevent littering of plastics and other wastes

EMP-Environmental Management Plan

Land available in 10 km buffer for EMP : 796.04 Ha
Total Forest land acquired for Hubli Ankola railway line 720 Ha

Species suggested
Caryota urens; Syzygium sp.; Diospyros sp.; Vitex altissima; Artocarpus hirsute; Diospyros sp.; Terminalia paniculata; Cordia dichotoma; Terminalia alata; Xylia xylocarpa; Dendrocalamus strictus; Persea macrantha; Bombax malabaricum

Public consultation & Media coverage

Team @ Work



Bharath Setturu, Subash Chandran M D, Ramachandra T V

Energy and Wetland Research Group, Centre for Ecological Sciences,
Indian Institute of Science, Bangalore 560012

Email: cestvr@ces.iisc.ernet.in, Phone: 080 22933099

Web: <http://ces.iisc.ernet.in/energy>, <http://ces.iisc.ernet.in/biodiversity>