



Supporting a Green Transport Infrastructure in the Golden Land of Myanmar

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Context: Myanmar

- **Natural wealth** - forests, undammed river systems, rich biodiversity
- **Strong Government interest** and President request for national mapping and commitment to develop a green economy strategy
- **Expanding transport infrastructure** to improve mobility of people and goods





The Dawei Road



Road planned between Dawei and Kanchanaburi



The Dawei Road

- Two-lane road planned between Dawei, southern Myanmar and Kanchanaburi in Thailand
- Part of a bigger project: Dawei Special Economic Zone includes seaport, railway, power plant
- Will cut through primary forest in Myanmar –tiger and elephant habitat and agricultural land in Thailand



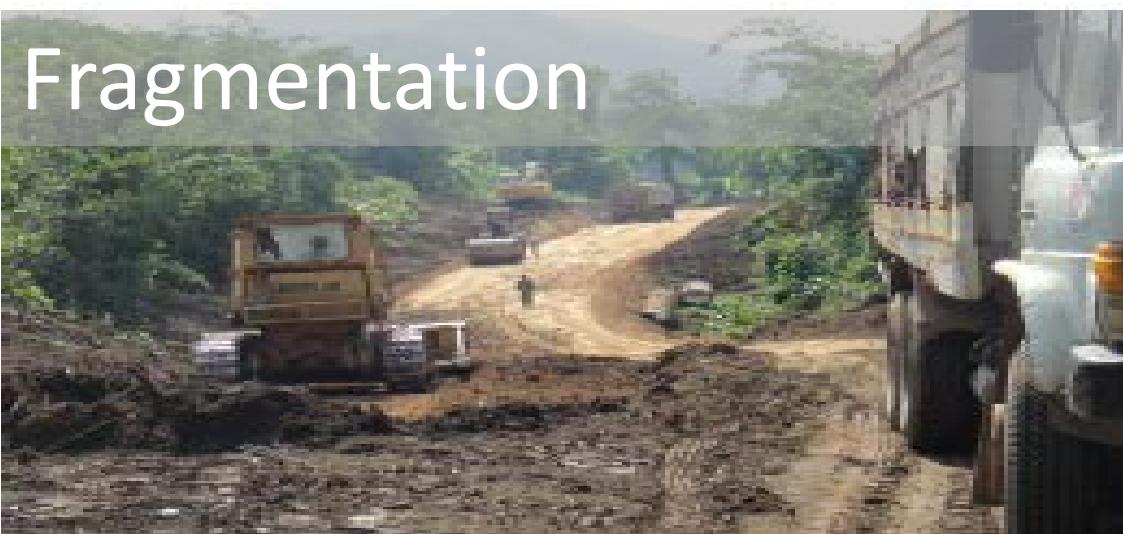
The Dawei Road: impacts



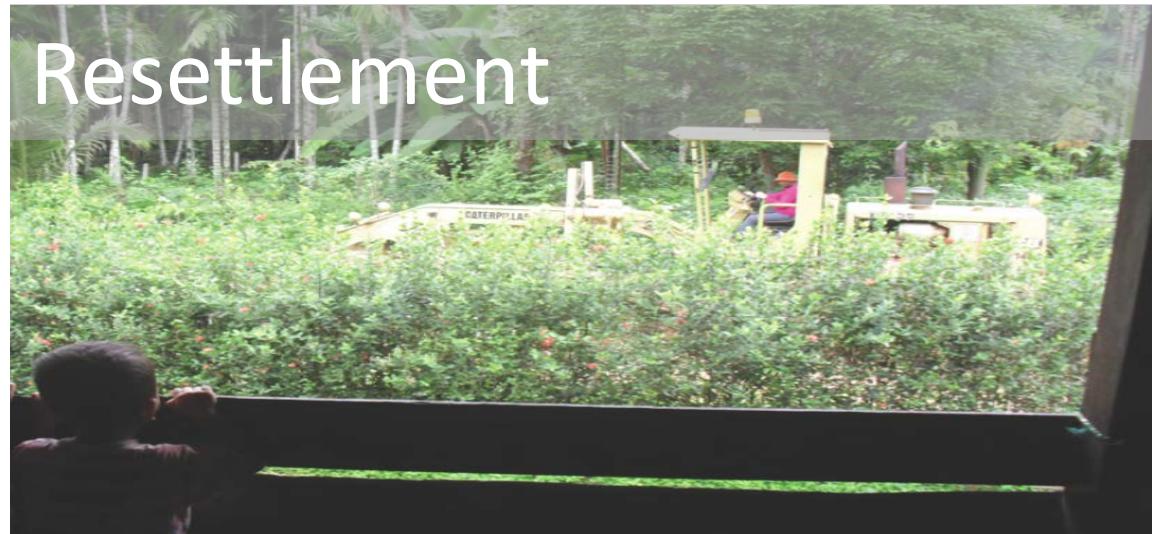
Deforestation



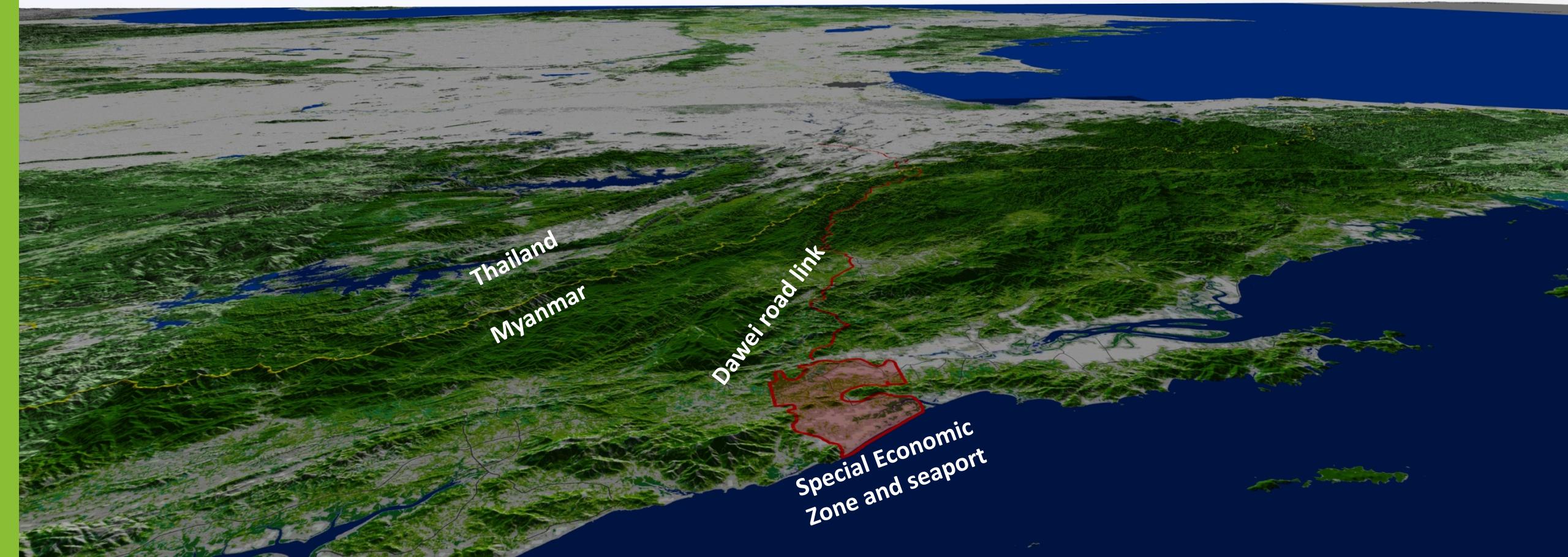
Soil erosion



Fragmentation



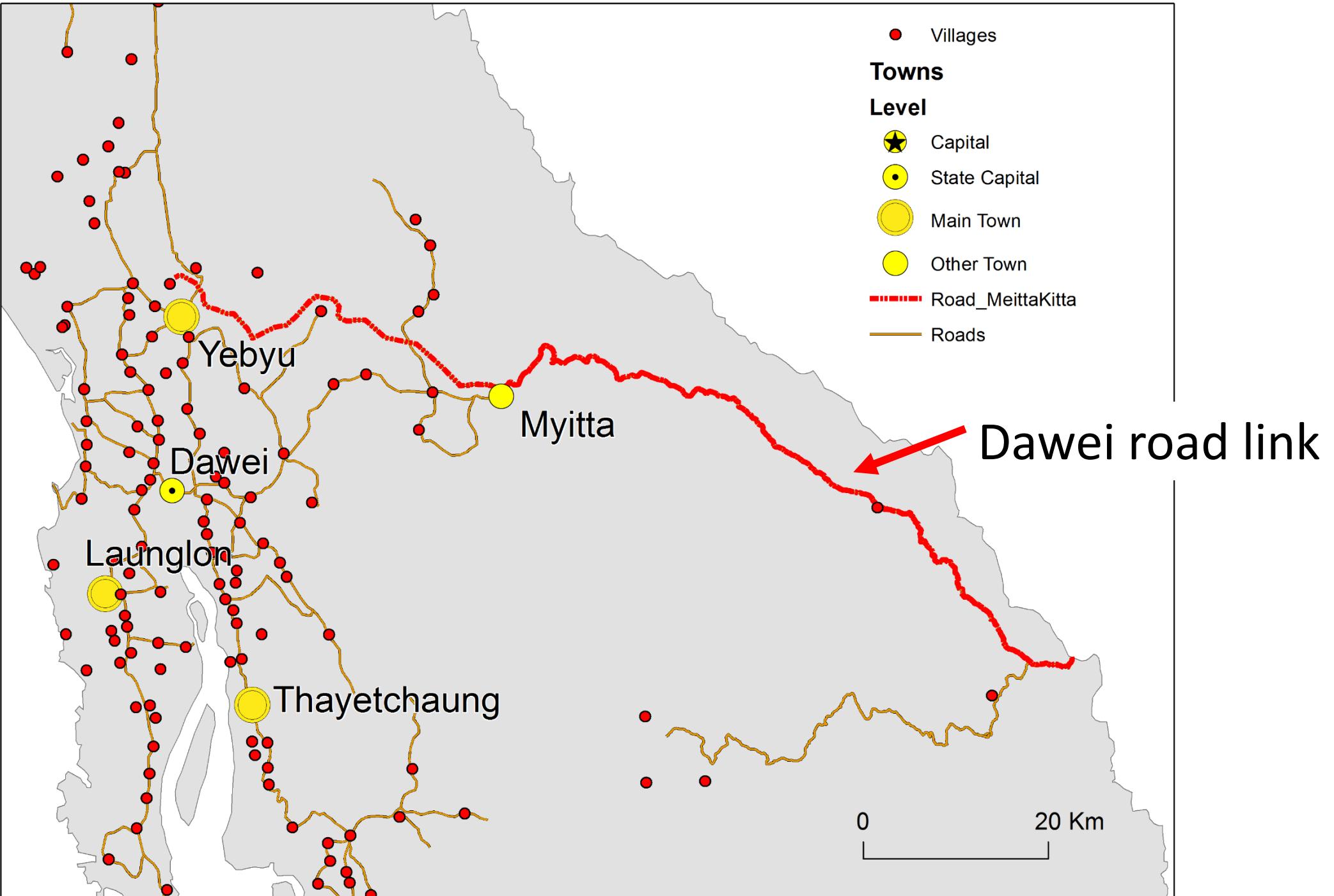
Resettlement



Thailand
Myanmar

Dawei road link

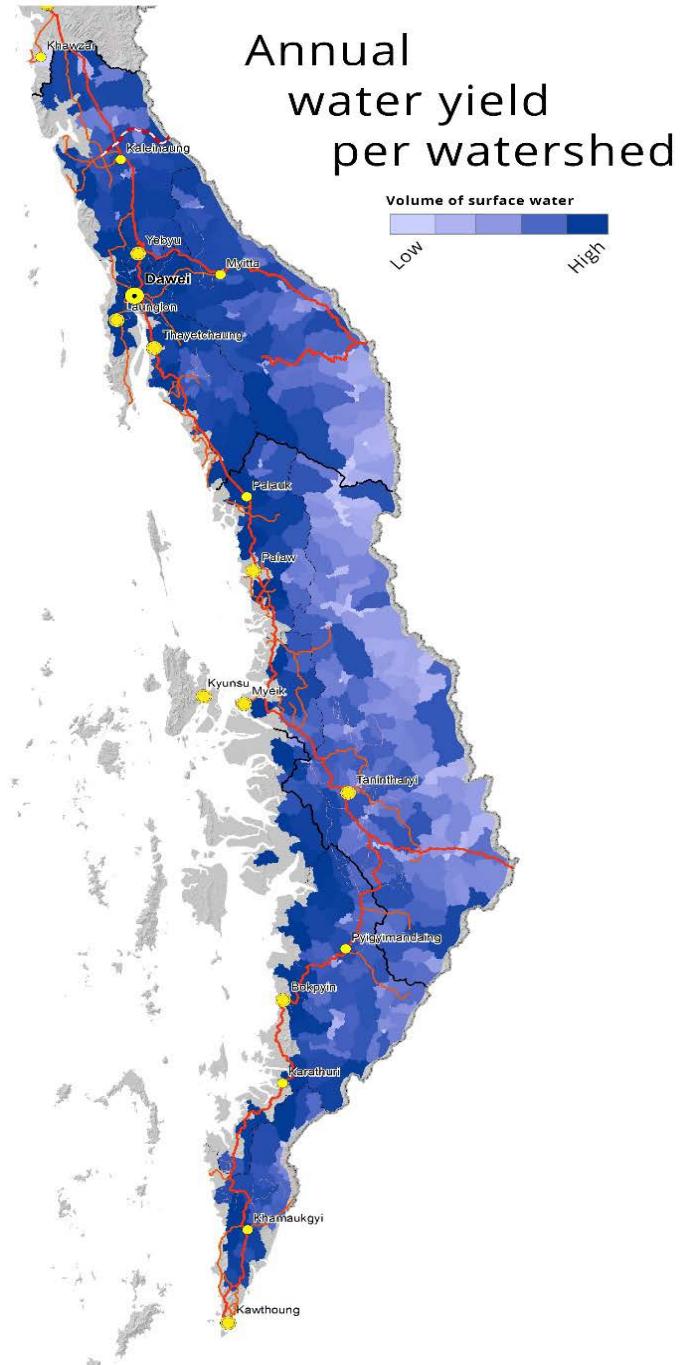
Special Economic
Zone and seaport





Natural Capital Assessments

- Can help inform road alignment to avoid hydrologically important areas
 - Water provisioning
 - Flood risk
 - Vegetation may enhance soil infiltration and increase water storage – reducing storm runoff



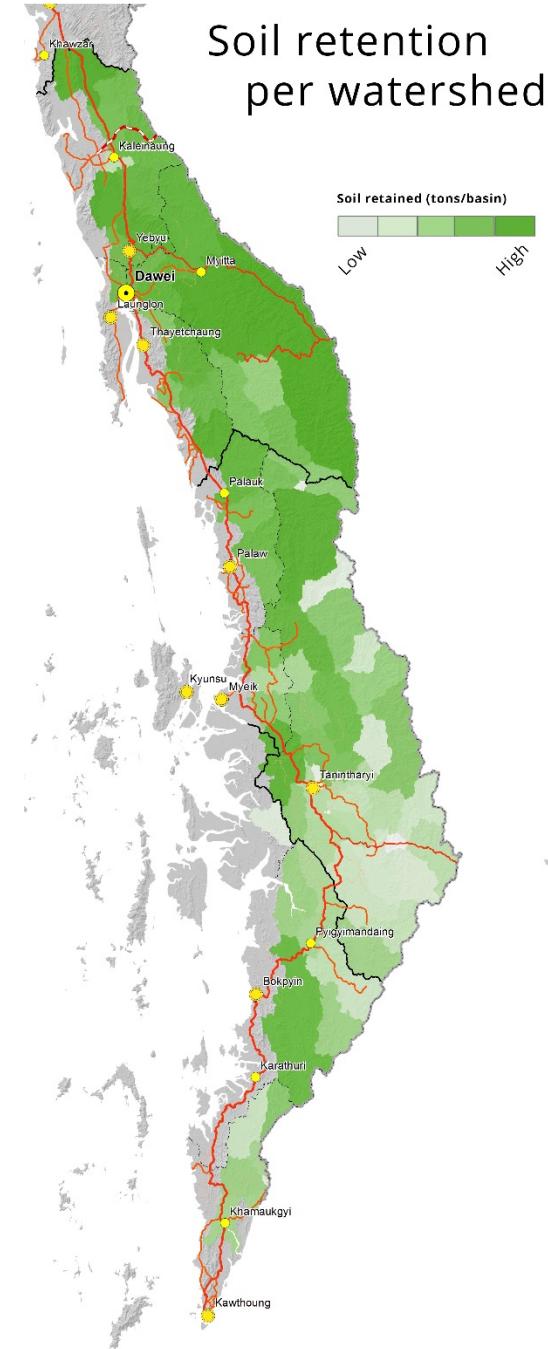


Natural Capital Assessments

- Dawei road runs through a partly mountainous and hilly area

Forests can:

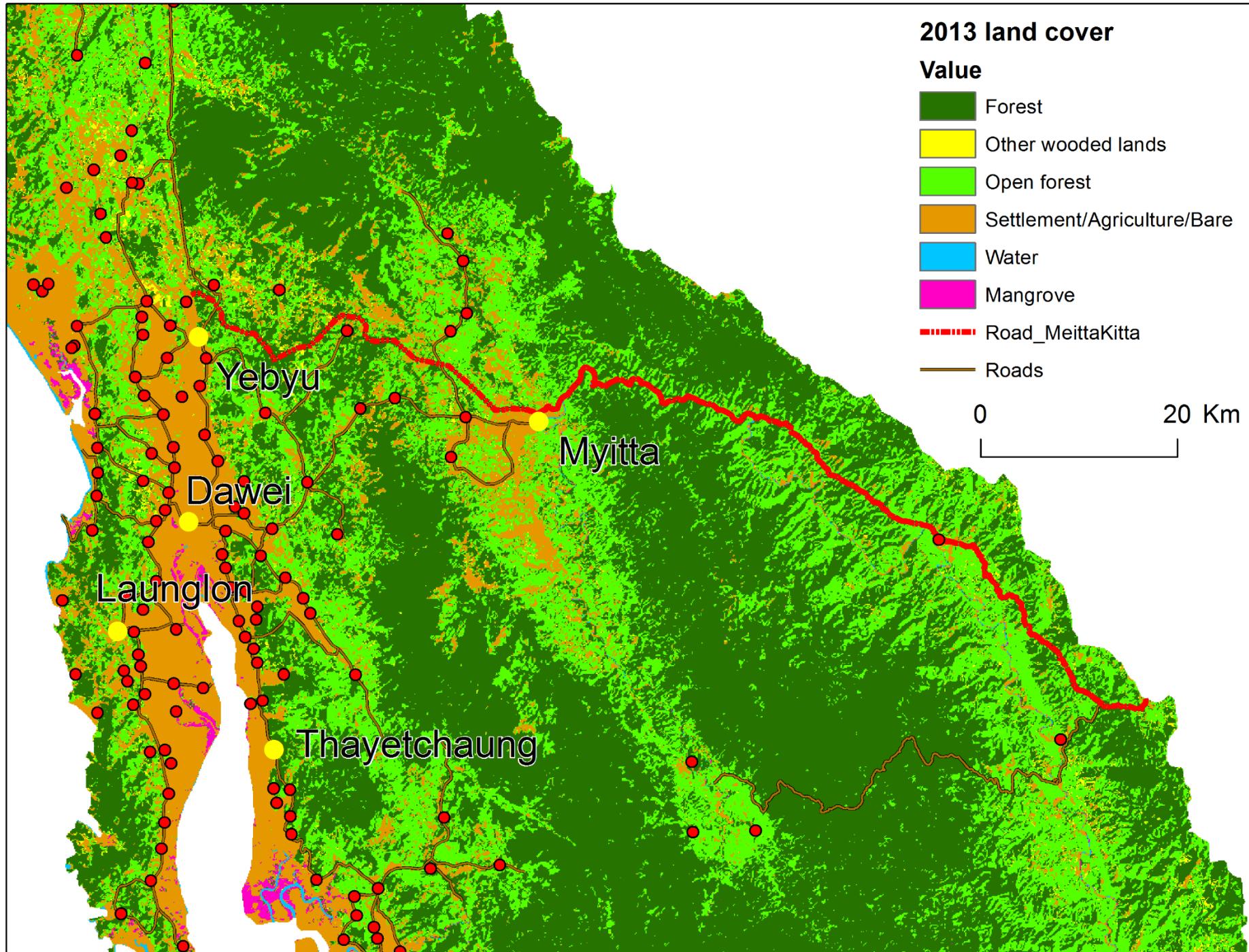
- help stabilize soils and hillsides – preventing landslides
- protect infrastructure investment by reducing erosion

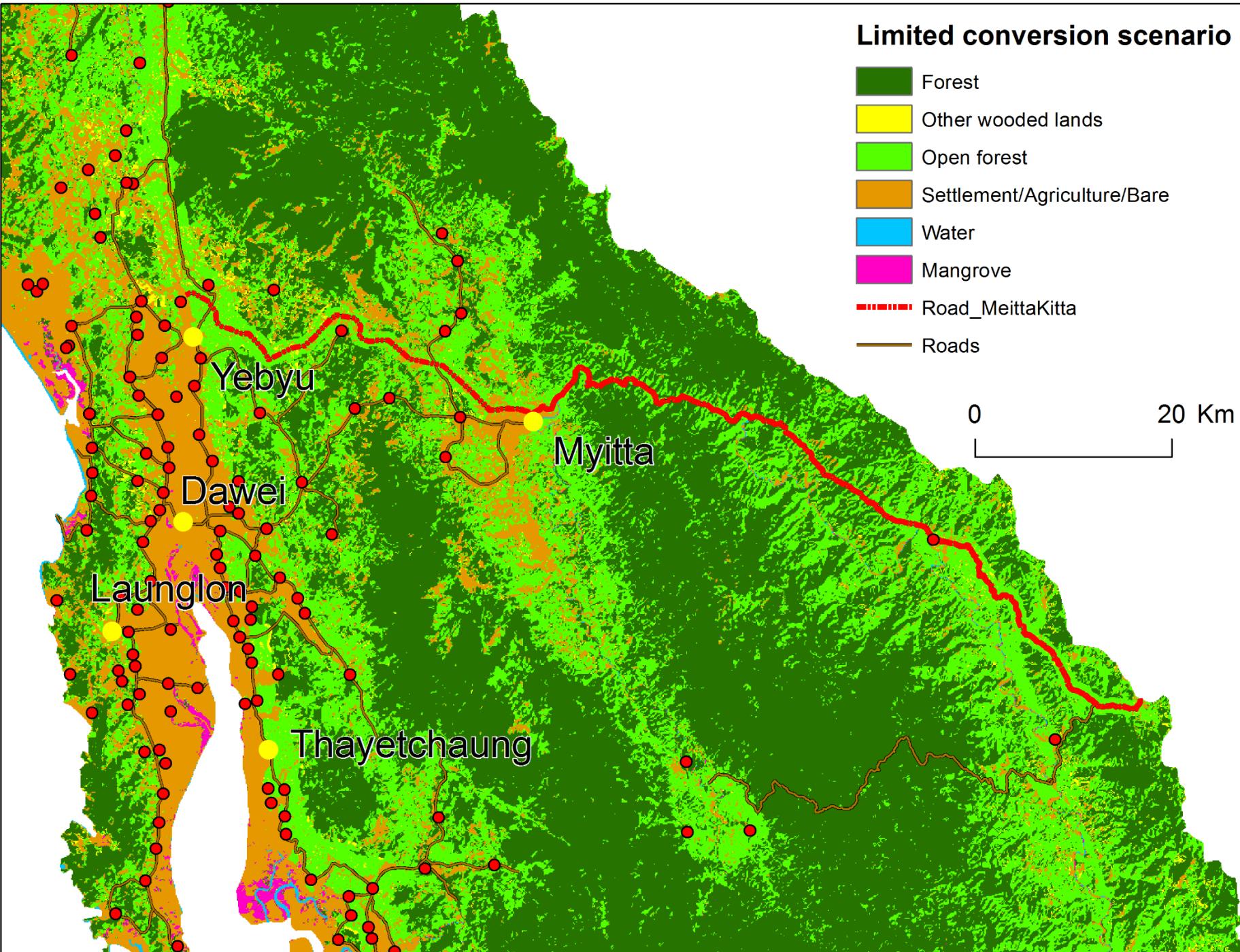


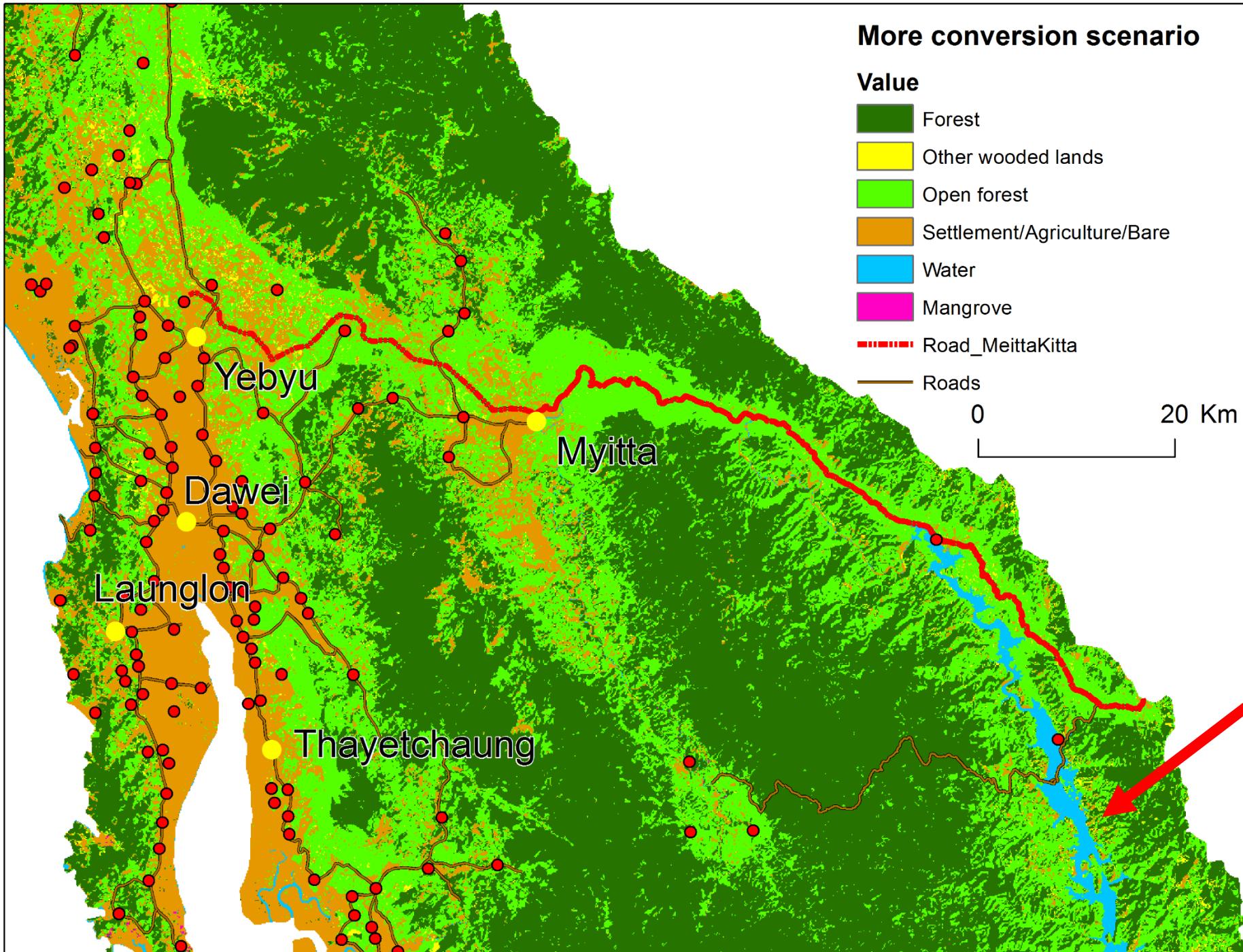


Scenario modeling

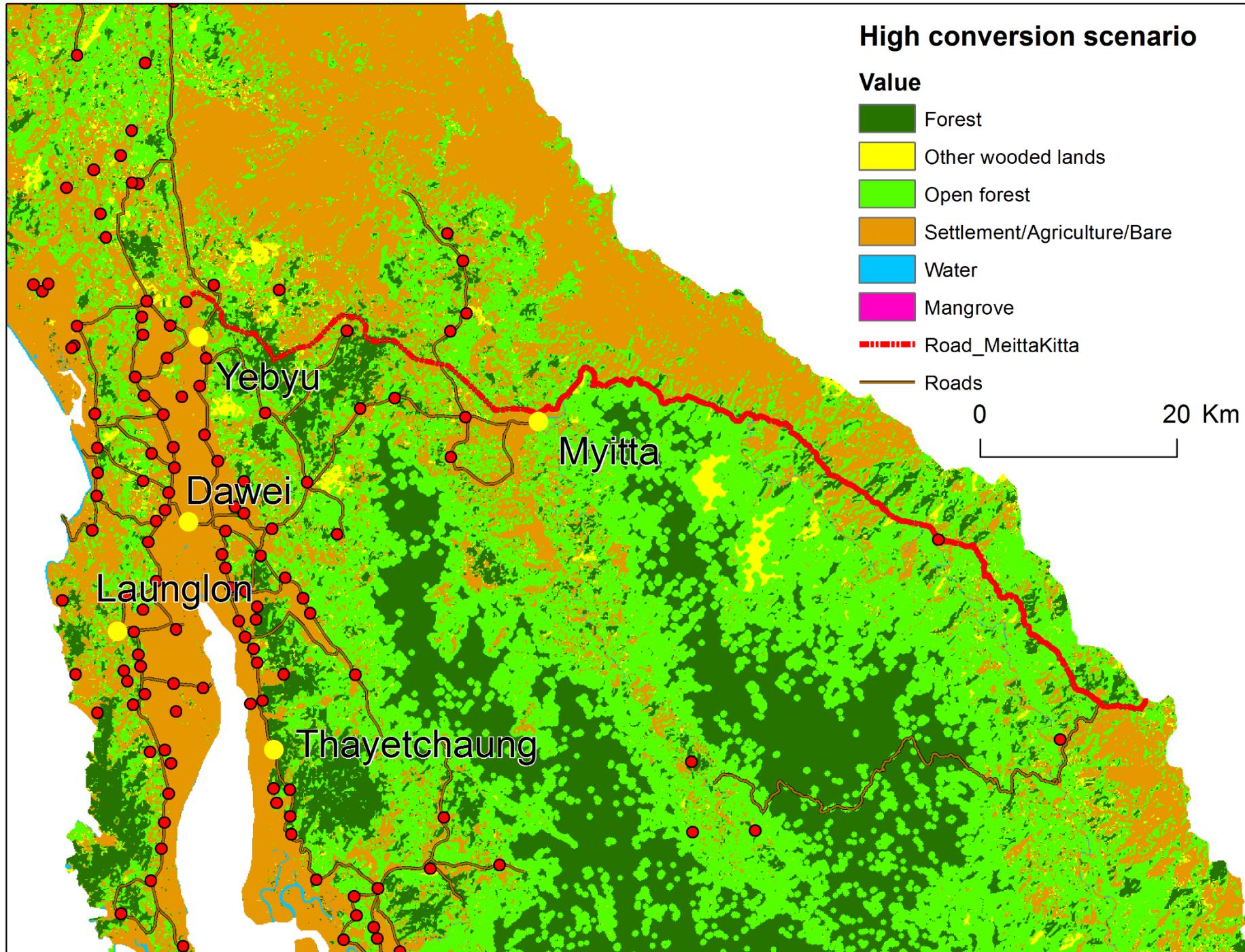
Some assumptions	“Limited conversion”	“More conversion”
Settlements / ag/ bare lands	5% increase, close to existing roads and settlements	30% increase, all over the landscape
Mangroves	No change	Allowed to degrade
Protected areas & corridors	No change	Allowed to degrade

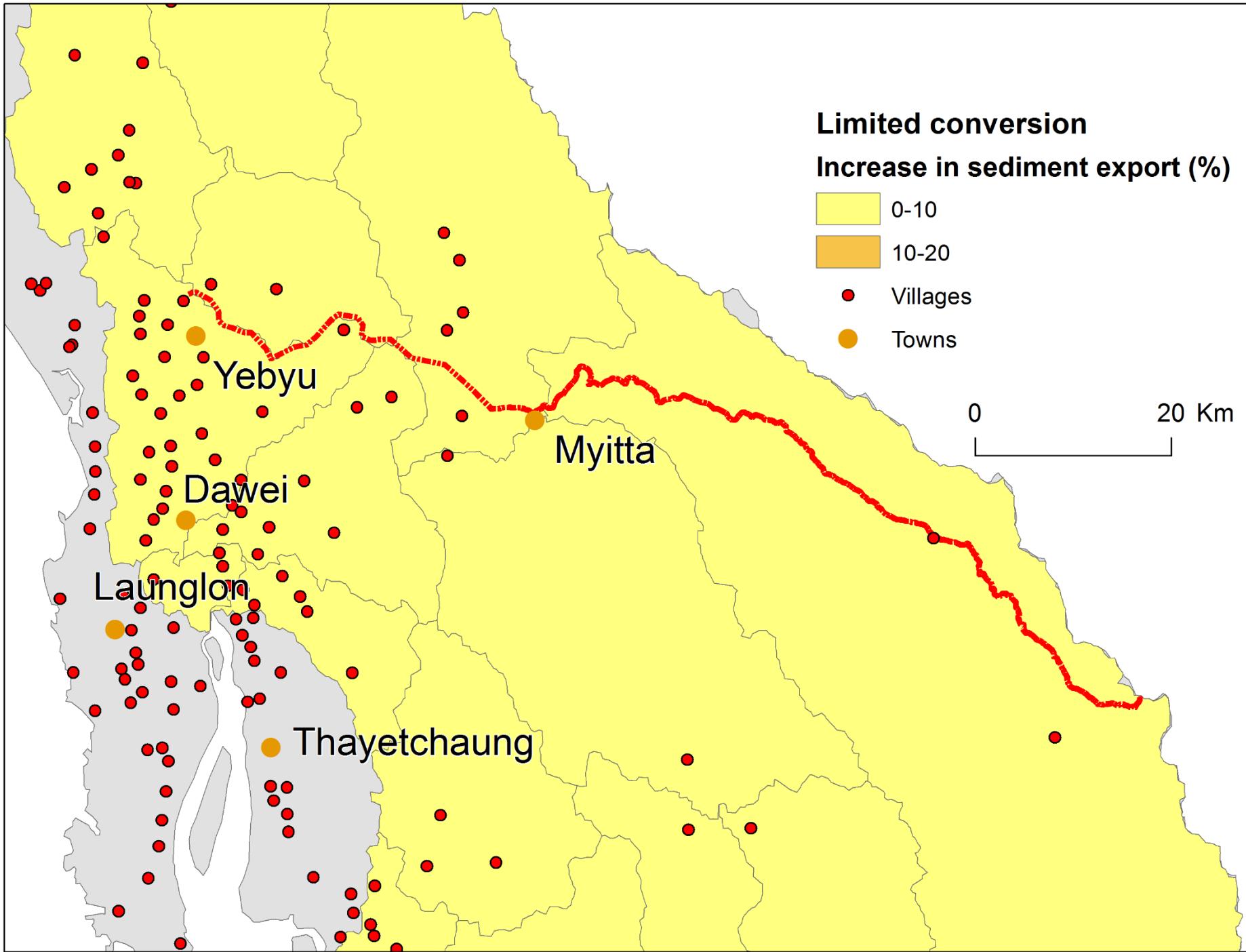


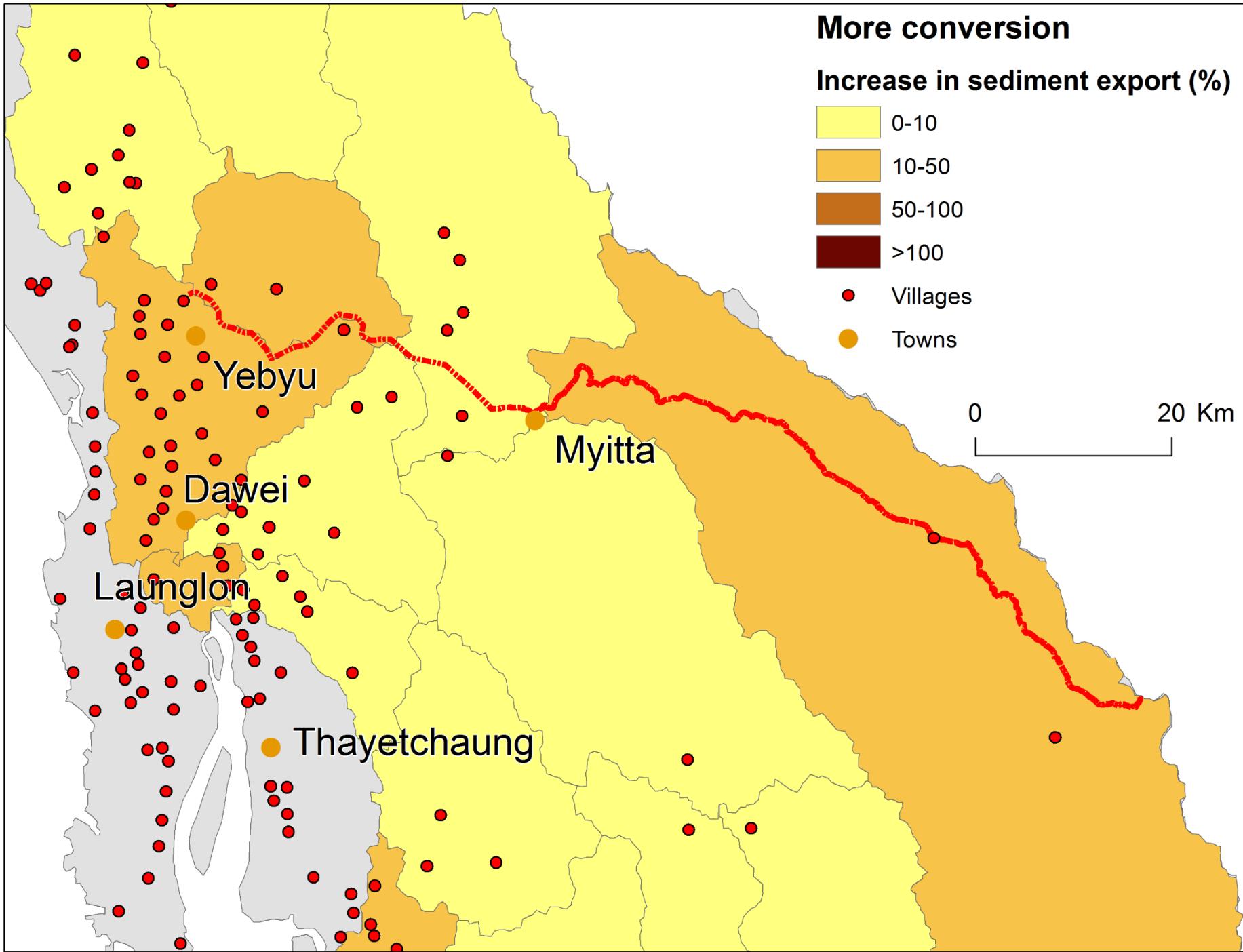


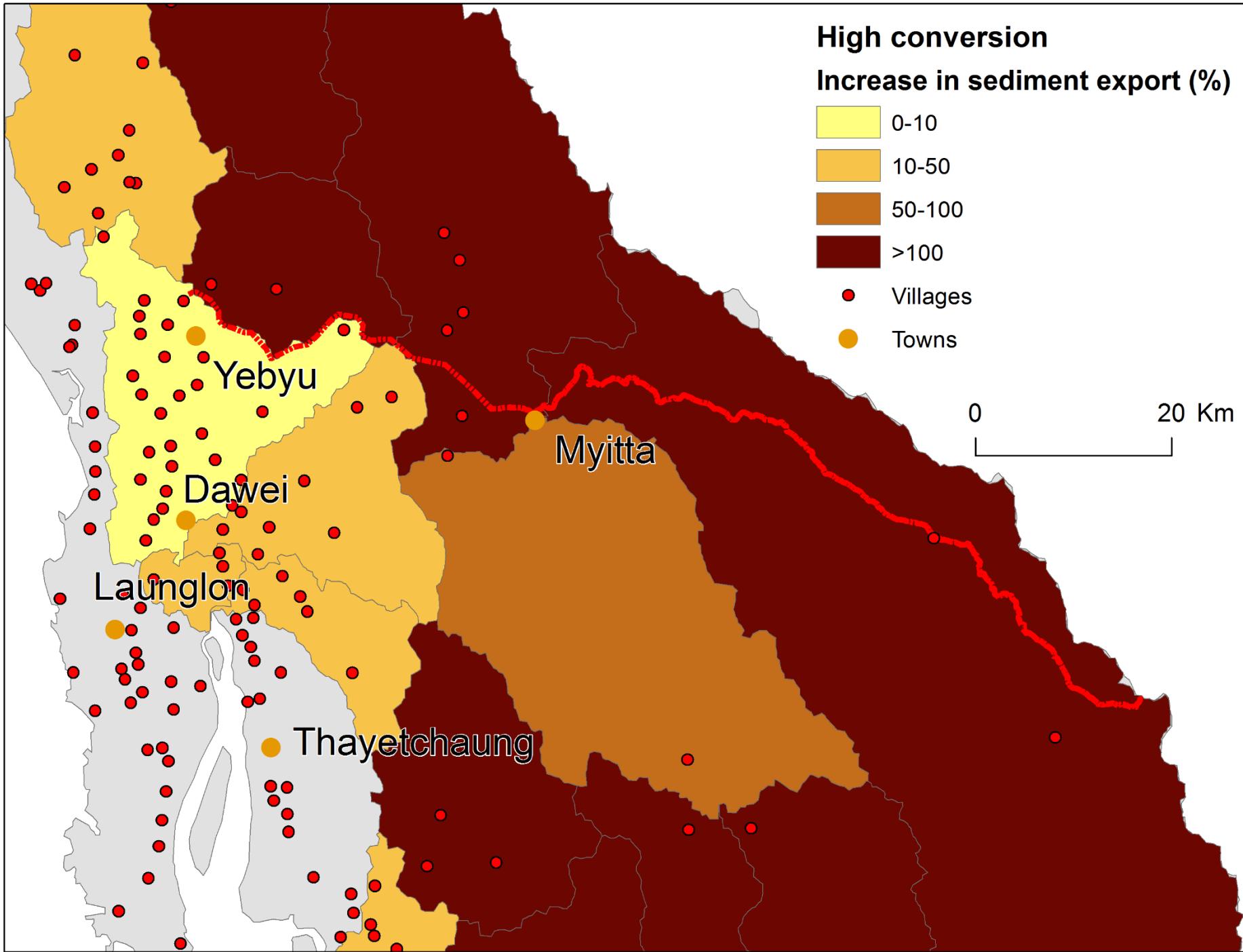


reservoir



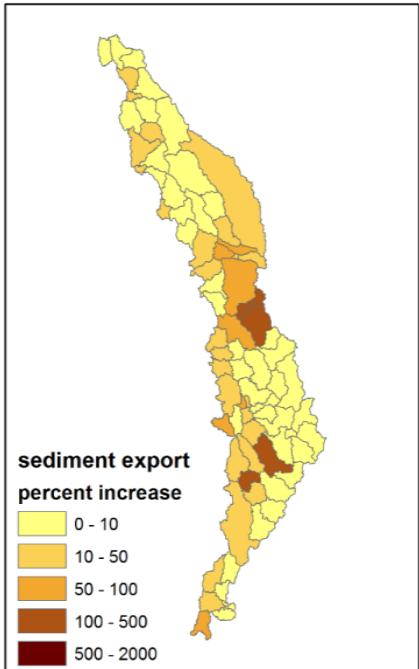




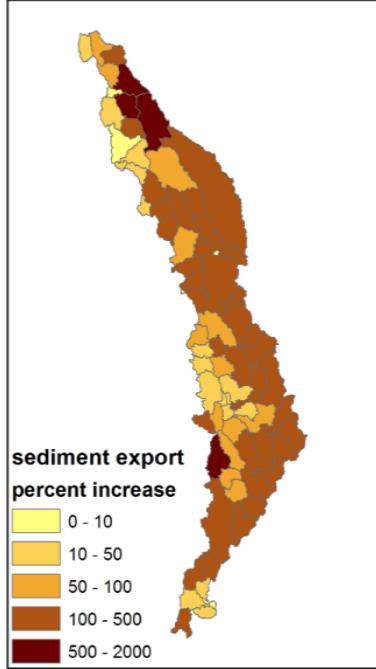




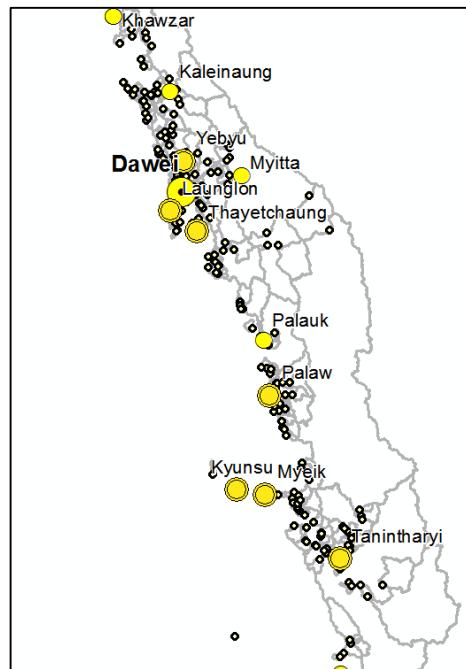
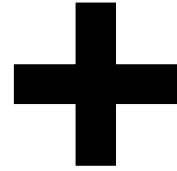
Who will be impacted by road development?



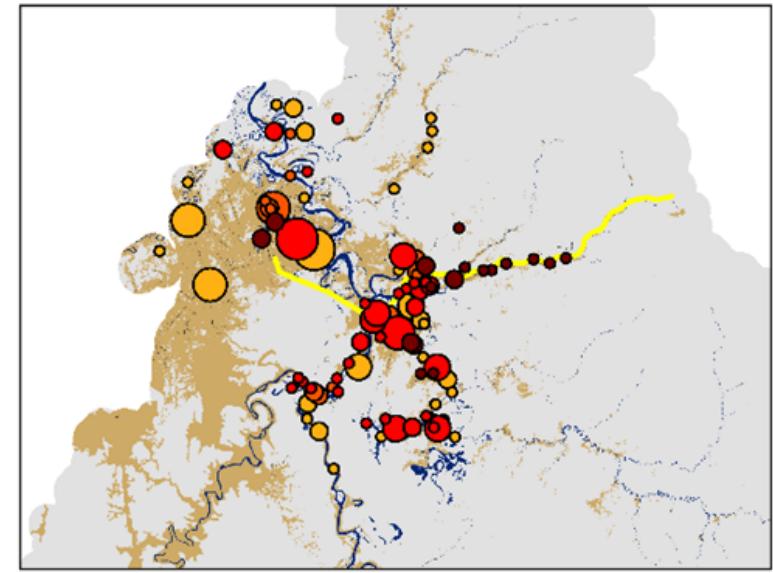
Some deforestation



More deforestation



Servicesheds

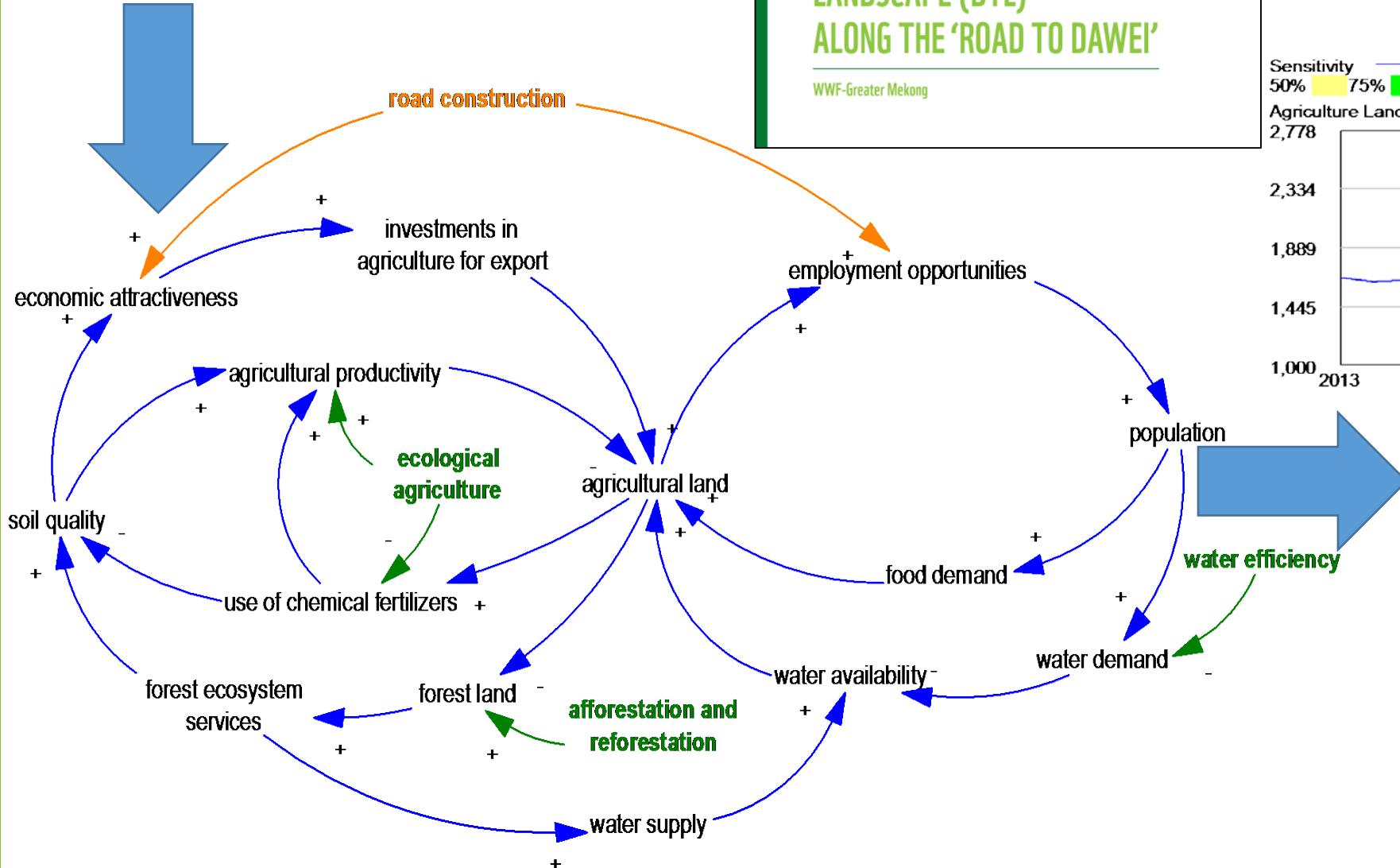


- < 250
 - 250 - 500
 - 500 - 1,000
 - 1,000 - 5,000
 - 5,000 - 130,000
- Loss of 4 services
 - Loss of 3 services
 - Loss of 2 services
 - Loss of 1 service
 - No loss of services



InVEST

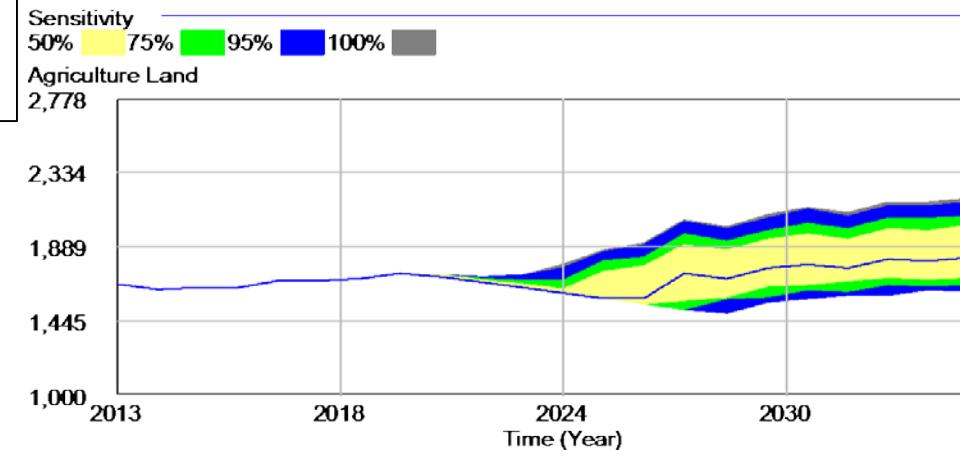
integrated valuation of environmental services and tradeoffs



GREEN ECONOMY MODELLING OF ECOSYSTEM SERVICES IN THE DAWNA TENASSERIM LANDSCAPE (DTL) ALONG THE 'ROAD TO DAEWEI'

WWF-Greater Mekong

Collaboration with Andrea Bassi



Time (Year)	Cumulative Value Of NTFP (USD)
v12 + road + ag + ref	482.86 M
v12 + road + ag	473.17 M
v12 + road	464.82 M
v12 BAU	466.61 M



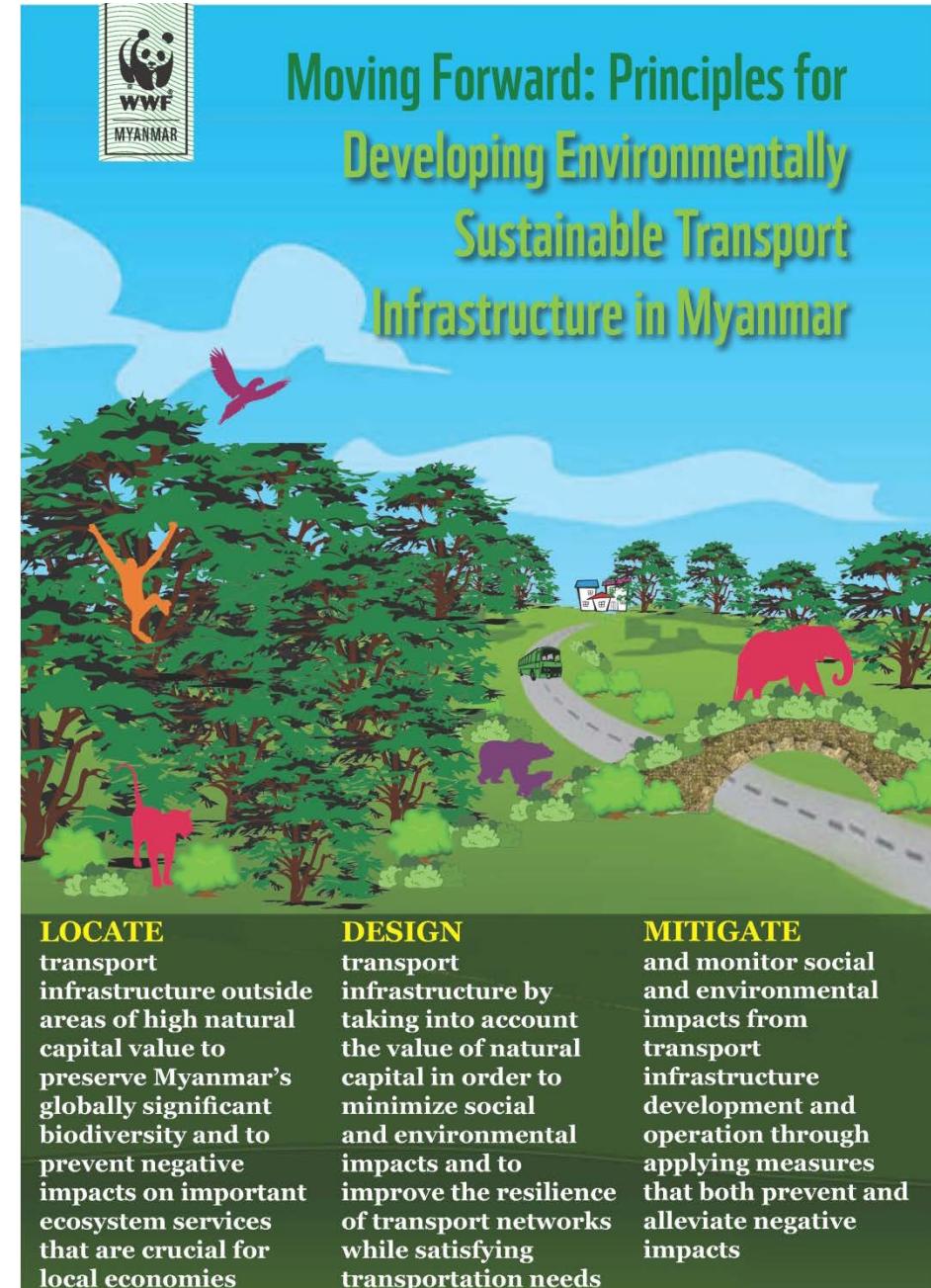
Mitigation Measures





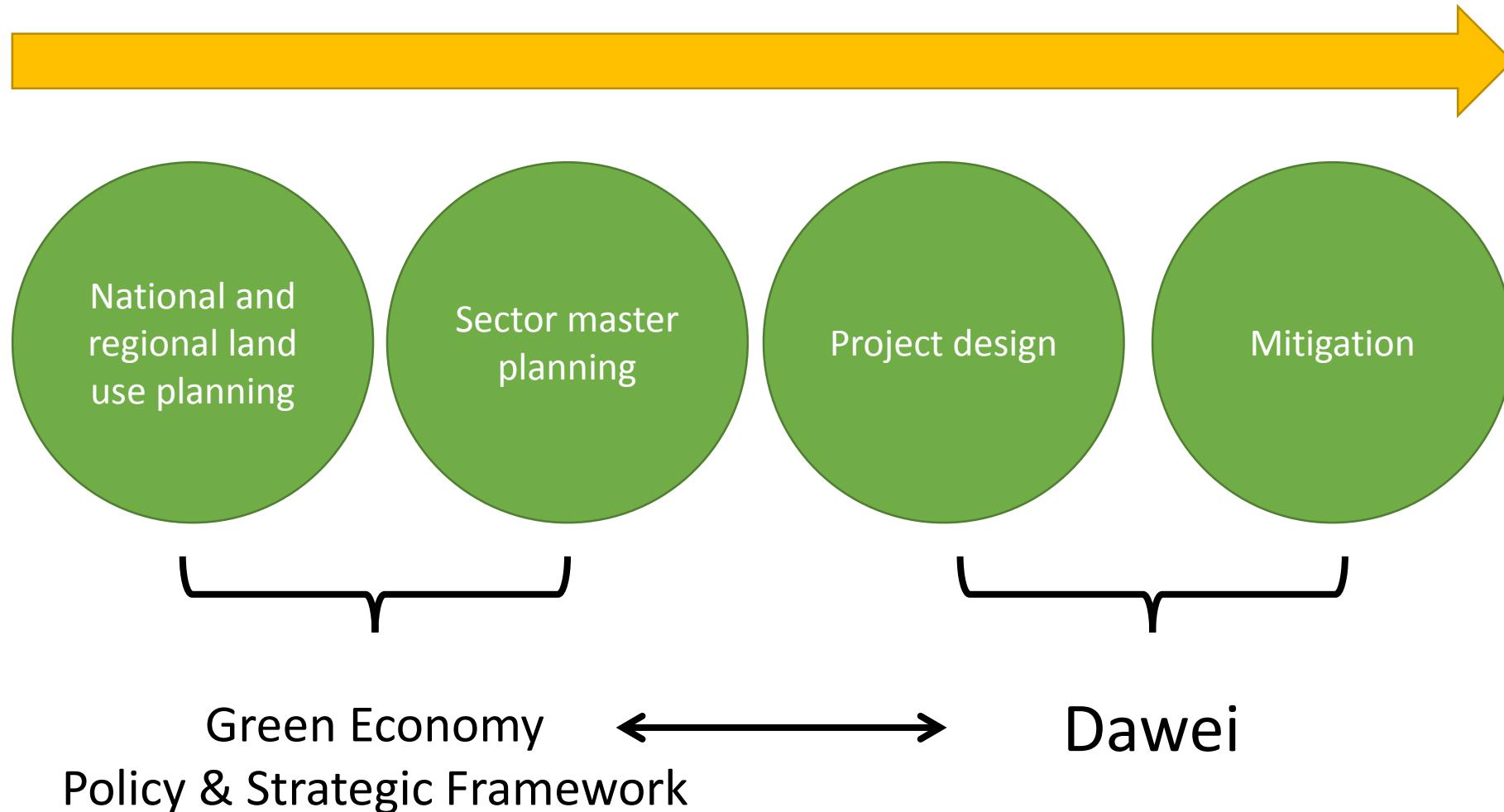
Sector-Specific Guidelines for Investments in Infrastructure

- EIA procedures almost finalized – but general
- Guidelines for planning, design and mitigation
- Initial discussions with ADB, JICA and bilateral donors





Opportunities to integrate natural capital throughout the development planning process







THANK YOU

