

Opportunity Mapping for Ecosystem-based Disaster Risk Reduction

A geospatial tool to promote the role of nature to reduce disaster risks



UNEP/GRID-Geneva
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Objectives of the Opportunity mapping for Eco-DRR

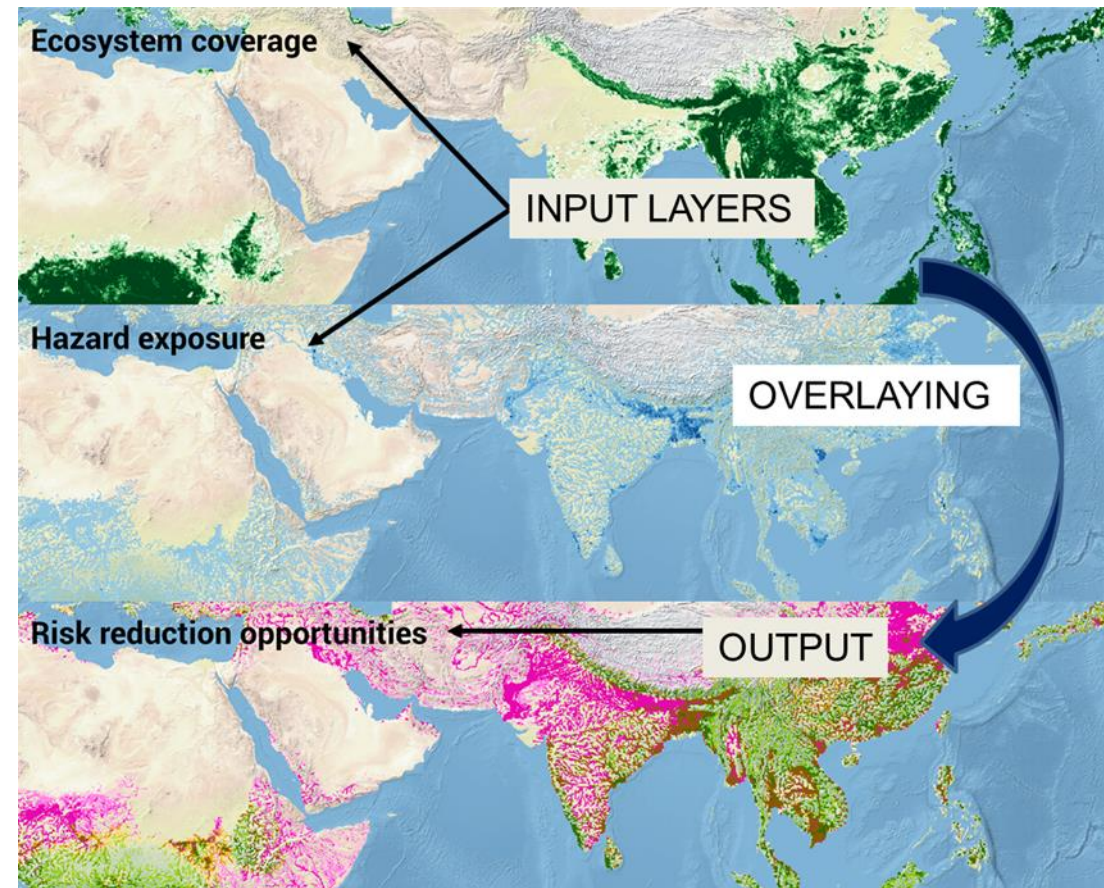
- (1) To *visually* demonstrate the interface between ecosystems and human exposure for a range of natural hazards and ecosystem types in each country
- (2) To identify potential areas for ecosystem conservation and/or restoration in order to reduce exposure for the highest number of people
- (3) To scale-up Eco-DRR investments and actions globally

Methodology

Overlaying hazard exposure with relevant ecosystem coverage

Eco-DRR mapping combinations

	Tsunami	Tropical cyclone	Landslide	Flood
Forest	✓	✓	✓	✓
Mangrove	✓	✓	x	x
Sea grass	✓	✓	x	x
Coral reef	✓	✓	x	x



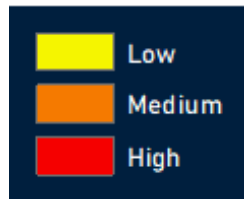
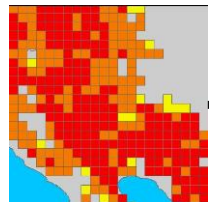
Current methodology for global scale

LAND COVER

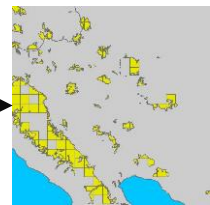
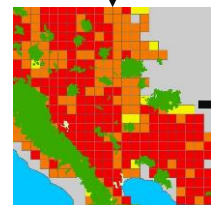


selection of relevant ecosystem classes

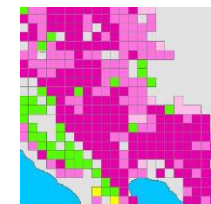
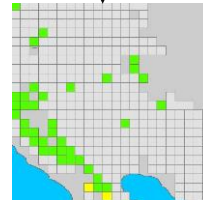
HAZARD EXPOSURE



classification



calculation of proportion of ecosystem coverage in hazard exposure cells

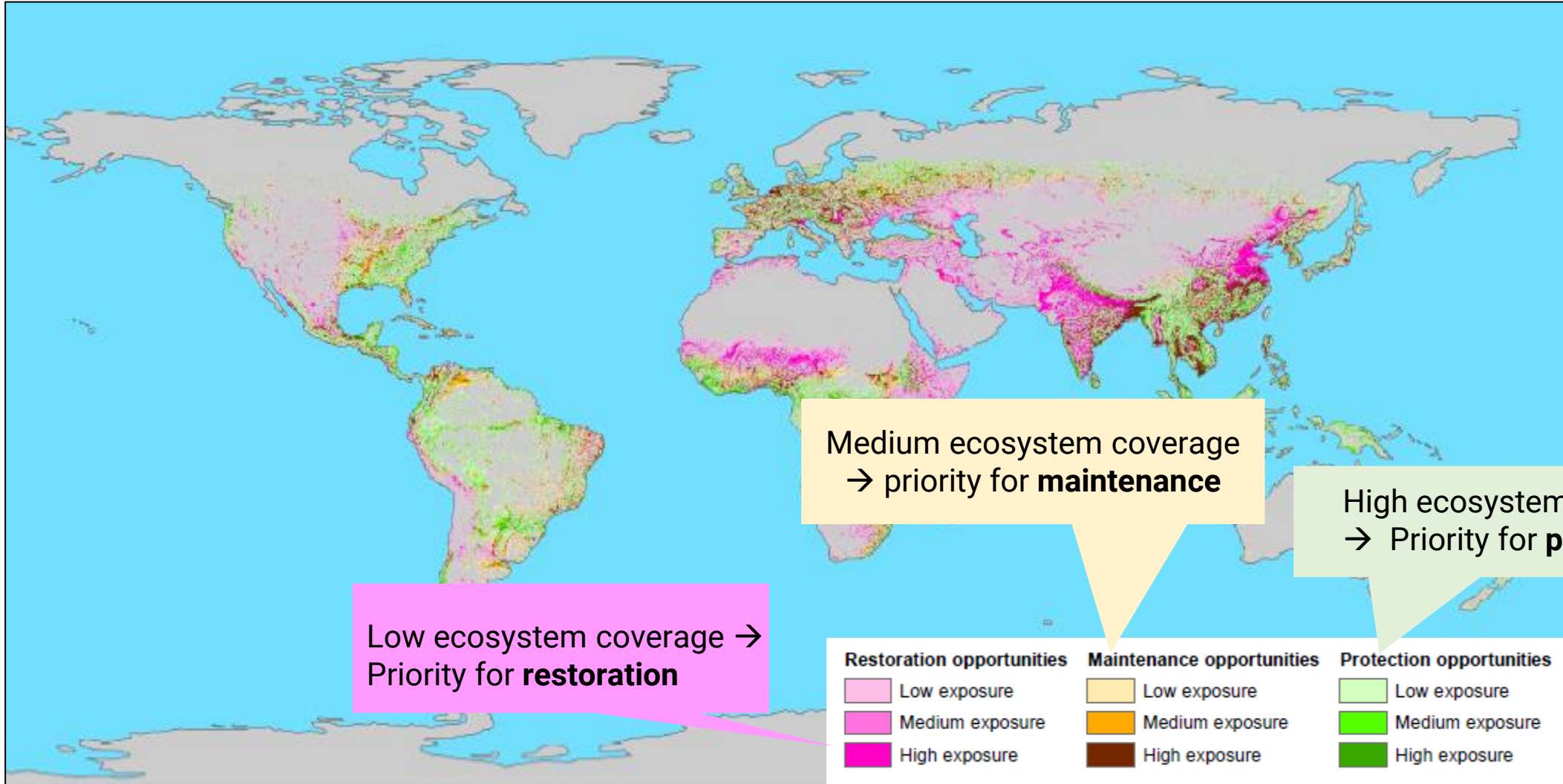


Opportunity mapping index for prioritizing ecosystem restoration for adaptation and hazard reduction

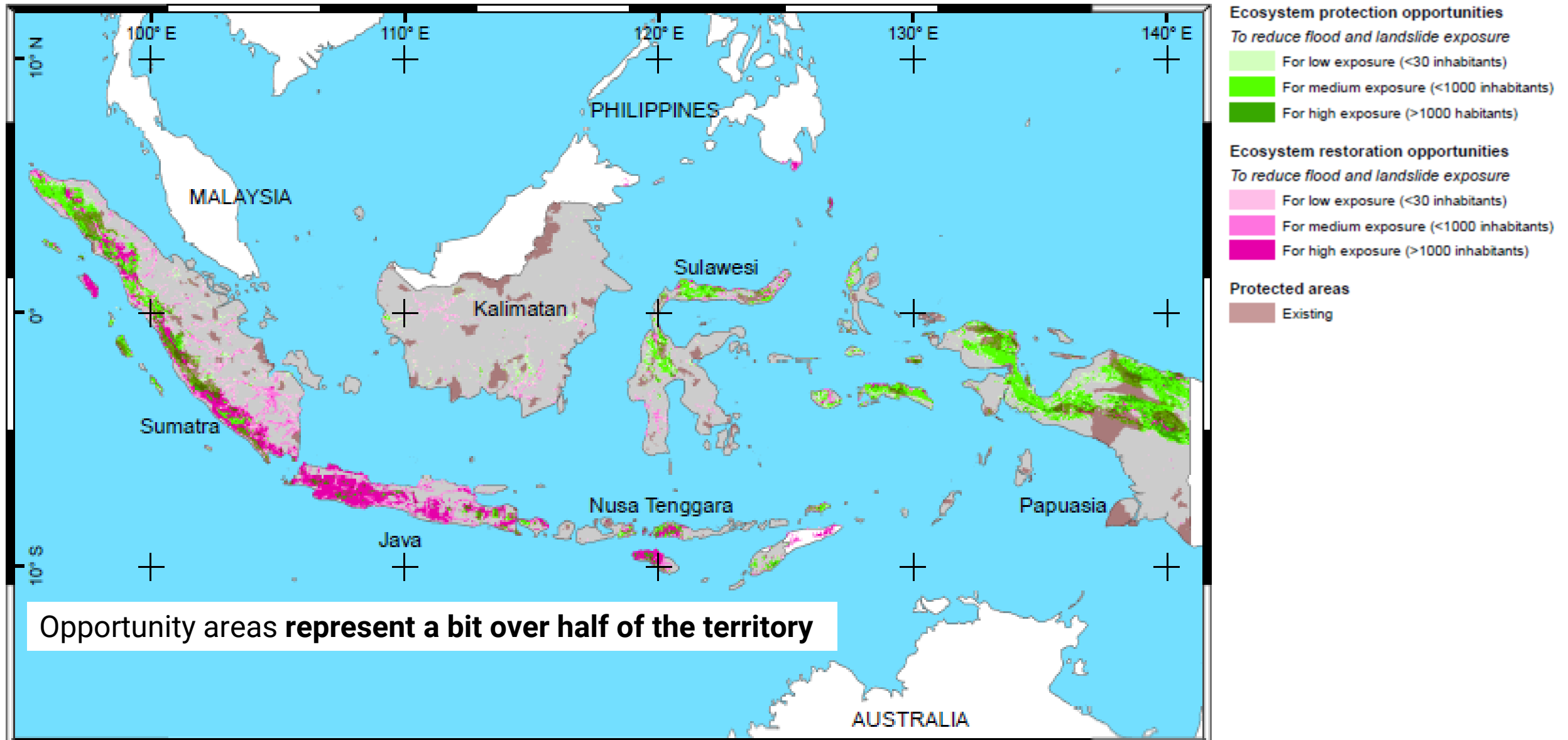


Global map (2)

For opportunities for the combination of flood exposure / forest coverage



Opportunities areas for flood and landslide reduction



Looking ahead

- Sector specific analysis – e.g. coastal areas / tourism
- Climate change analysis – country level
- Socio-economic vulnerability analysis – country level



GEF 6: MANAGING TOGETHER: INTEGRATING COMMUNITY-CENTERED, ECOSYSTEM-BASED APPROACHES INTO FORESTRY, AGRICULTURE AND TOURISM SECTORS





Thank you

<https://pedrr.org/mapping-eco-drr-opportunities/>

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