

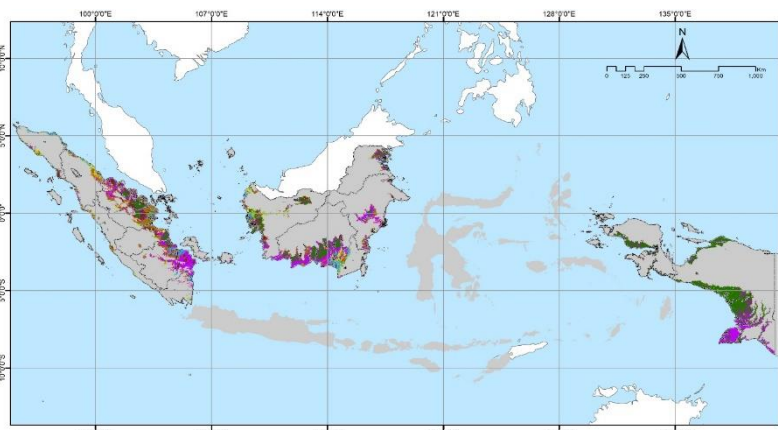
Sustainable Lowland Agriculture for Development in Indonesia (SLADI)

Aligning land use and infrastructure to facilitate the achievement of lowland sustainability

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Broad Farming Systems

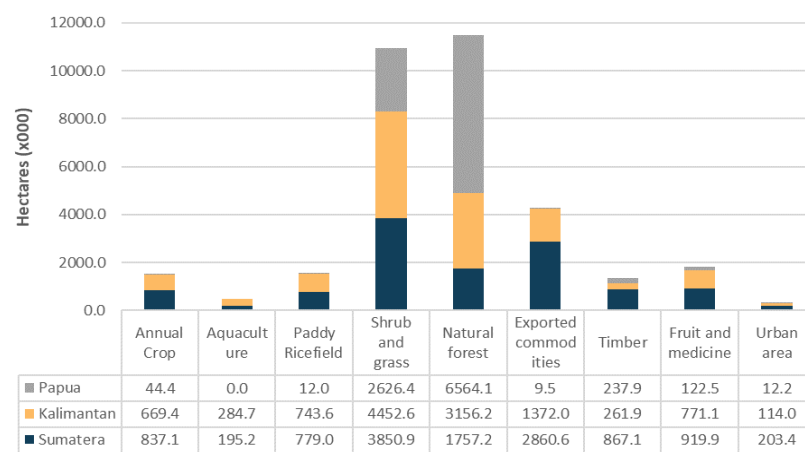


Legend:

- Paddy Ricefield
- Annual Crop
- Tree Based Mixed - Fruit and medicine
- Tree Based - Timber
- Tree Based - Exported commodities
- Aquaculture
- Pastoral and arid
- Urban based
- Sparse (forest)

Despite its significance for the achievement of national economic growth for improving rural livelihoods in Indonesia, lowland agriculture must overcome several challenges if it is to realize its full potential. The Sustainable Lowland Agriculture or Development in Indonesia (SLADI) conducted a spatially explicit analysis to identify a range of policy and intervention options to ensure the sustainability of agricultural production systems in the diverse biophysical, social, and economic contexts in lowland landscapes in the three large islands of Sumatra, Kalimantan, and Papua.

Following a cascading identification system, nine farming systems are identified, from ricefield; annual crop; fruit and medicinal plants; timber; export commodities; natural forest; shrub and grassland; aquaculture; and urban areas. In order to assess the spatial distribution of the lowland farming system in Indonesia, we use time-series land use/cover maps and other spatial datasets



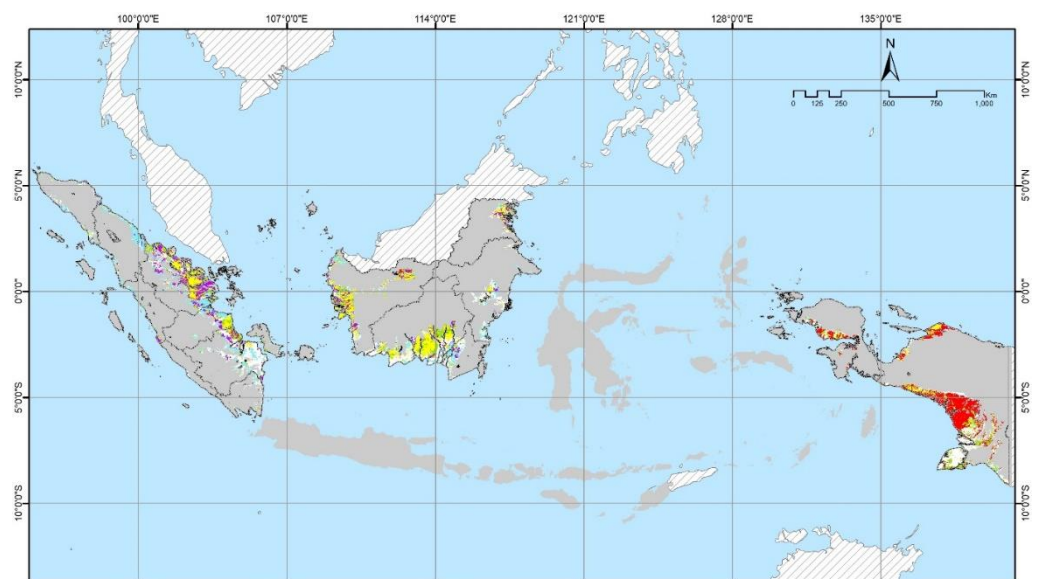
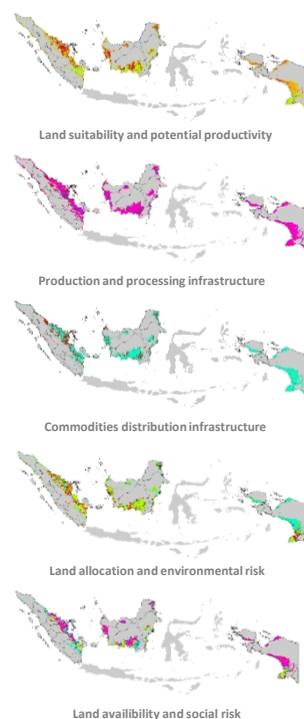
Key Findings

- Characterization of Broad farming system (B-FS) in lowland shows diverse trends and distribution across the three large Indonesian islands.
- Significantly large areas of the existing lowland farming system are managed in areas that are barely biophysically suitable or even not suitable, with some limiting factors that cannot be addressed
- Factories, market, port and airport as production, processing and distribution infrastructures are mostly located far away from the farming areas that hinder farmers from accessing market
- There are considerably large agricultural areas with high environmental and social risks that need to be addressed carefully in the development of sustainable lowland agriculture.

Characterization and intervention option

We characterize and identify a typology mapping of lowland agricultural contexts, with the recognition of specific local contexts/proximate drivers, including biophysical suitability, production infrastructure, distribution infrastructure, processing infrastructure and land allocations. We also identify and mapped intervention options within the typology of contexts/drivers and the mapping of these intervention options for sustainable agriculture in lowland areas.

The intervention map could serve as an important input for the regional and local planning agencies to formulate integrated green and resilient infrastructure development strategies for rural development and for prioritizing restoration and development programs across government agencies in Indonesia



Legend:

- Low intervention level
- Implementation of GAP
- Improvement in production and distribution infrastructure
- Improvement in processing factory and connectivity infrastructure
- Enforcement of environmental safeguard
- Enforcement of social safeguard
- Land re-allocation and restoration

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