



MAPBIOMAS
INDONESIA

Description of Land Cover Used in MapBiomias Indonesia Collection 4.1

Level 1	Level 2	Mapbiomas Indonesia Collection 4 Brief Description	Land Cover Classification - Indonesian National Standard (SNI) 7645-1:2014	Land Cover Classification of the Ministry of Environment and Forestry
1. Forest	1.1. Forest Formation	Land cover dominated by trees with high and consistent density, either those that have never or only slightly shown signs of disturbance (logging and/or fire), or those that have been disturbed but have naturally regrown across various landscapes such as mountains, lowlands, or hills.	Highland Forest (Mountains/Hills - 2.1.1.1); Lowland Forest (2.1.1.2) Scale: 1:250,000	Primary Dryland Forest (2001); Secondary Dryland Forest (2002) Scale: 1:250,000
	1.2. Mangrove	Land cover dominated by trees that grow naturally in coastal areas or river estuaries influenced by tidal seawater, muddy, and brackish conditions, with a linear spatial pattern following the coastline or branching in river delta areas.	Mangrove Forest (2.1.1.5) Scale: 1:250,000	Primary Mangrove Forest (2004); Secondary Mangrove Forest (2004I) Scale: 1:250,000
	1.3 Peat Swamp Forest	Land cover dominated by trees that grow naturally on peat soil, distributed in lowland areas or basins with permanent or seasonal water inundation.	Swamp/Peatland Forest (2.1.1.3) Scale: 1:250,000	Primary Swamp Forest (2005); Secondary Scale: 1:250,000
2. Non-Forest Natural Formation	2.1. Non-Forest Natural Vegetation	Non-forest vegetation types are climax vegetation formations consisting of grasslands, shrublands, swamps, or vegetation associated with inundation from rivers, lakes, or coastal areas, characterized by low density. They may also represent regrowth following disturbances such as logging or fire, reflecting degraded forests with low canopy cover.	Savanna (2.1.1.6); Shrubs and Bushes (2.1.1.7); Herbs and Grass (2.1.1.8); and Other Natural/Semi-Natural Vegetation Cover (2.1.1.9) Scale: 1:250,000	Shrubs (2007); Swamp Shrubs (2007I); Savanna/Grassland (3000), Swamp (5001I) Scale: 1:250,000
	3.1. Rice Paddy	Seasonal wetland agricultural land characterized by embankment patterns that require irrigation and inundation during the growth phase.	Wetland Seasonal Crops (Rice Fields - 2.2.1.5) Scale: 1:250,000	Rice Paddy (20093)

3. Agriculture	3.2 Oil Palm	Land planted with oil palm, characterized by vast expanses and a relatively regular pattern (industrial scale), uniform age, and often forming rectangular boundaries (with some patterns adjusted to contours), featuring a road network and canals in peatland areas.	Oil Palm Plantation (2.2.1.2.6) Scale: 1:50,000 / 1:25,000	Plantation (2010) Scale: 1:250,000
	3.3 Pulpwood Plantation	A large-scale monoculture plantation that is planted and harvested for pulpwood or wood fiber production, primarily dominated by Eucalyptus and Acacia.	Acacia Forest (2.2.1.1.4) Scale: 1:50,000 / 1:25,000	Planted Forest (2006) Scale: 1:250,000
	3.4. Other Agriculture	Land with perennial and/or seasonal crops, including plantations, agriculture, or a combination of both, cultivated on either dry or wet land.	Plantations with Hardwood Trees (2.2.1.2); Seasonal Crop Plantations (2.2.1.3); Mixed Gardens and Crops (Perennial and Seasonal - 2.2.1.3); Seasonal Crops on Dryland (2.2.1.4); Other Cultivated Plants (2.1.1.7); and Shifting/Cyclic Cultivated Vegetation (2.2.2.0) Scale: 1:250,000	Dryland Agriculture (20091); Mixed Dryland Agriculture (20092) Scale: 1:250,000
4. Non-Vegetated Area	4.1. Mining Pit	All types of open areas caused by mining activities such as coal, tin, copper, bauxite, nickel, and gold, including tailing grounds (areas used for the disposal of residual materials from mining processes).	Open-Pit Mining Other than Gravel/Sand (1.2.2.1.2); Other Open-Pit Mining (1.2.2.1.3) Scale: 1:50,000 / 1:25,000	Mining (20141) Scale: 1:250,000
	4.2. Urban Area	Land cover dominated by man-made structures such as residential buildings, supporting facilities, and related infrastructure, used as living spaces or for other human activities.	Residential or Mixed Buildings (1.2.3.1) Scale: 1:250,000	Settlement (2012)
	4.3. Other Non-Vegetation	All features of open land without vegetation cover, both natural/semi natural and artificial/anthropic.	Natural Rock/Sand Expanses (1.1.2.1); Coastal Sand Expanses (1.1.2.2); Mud Flats (1.1.2.3); Other Natural Open Land (1.1.2.4); Managed Open Land (1.2.2.1); and Hardened Surfaces Other than Buildings (1.2.2.2) Scale: 1:250,000	Open Land (2014); Airport or Port (20121) Scale: 1:250,000
	5.1 Aquaculture	Inland fisheries (fish/shrimp ponds) or salt mining activities that appear with bund patterns (in general) around the coast.	Saltwater/Brackish Ponds (Fish Ponds - 1.2.1.2) Scale: 1:250,000	Fish Pond (20094) Scale: 1:250,000

5. Water Body	5.2. River, Lake, Ocean	All water features including oceans, seas, rivers, lakes, reservoirs, coral reefs, seagrass beds, and other water bodies. Meanwhile, ponds, rice fields, and swamps have been classified separately.	Marine Waters (1.1.1); Natural Lakes/Ponds (1.1.2); Rivers (1.1.5); Other Natural Water Bodies (1.1.6); Reservoirs and Artificial Lakes (1.2.1.1); Water Channels (1.2.1.4); and Other Water Storage Areas (1.2.1.5) Scale: 1:250,000	Water Body (5001) Scale: 1:250,000
6. Not Observed		Unobservable area because data is not available or covered by clouds.		Clouds (2500) Scale: 1:250,000