MAPBIOMAS
INDONESIA

[Fact sheet]

Land Cover Dynamics of Indonesia 1990-2024

Collection 4.1

February 2026

Annual Land Cover Dynamics of Indonesia 1990 - 2024

Collection 4.1

Contains 13 classes of land cover and land use with additional time periods starting from 1990

Improvement of historical data consistency and representation of transitions from natural classes to anthropogenic classes

MapBiomas is an initiative that prioritizes collaboration between civil society and local expertise in mapping land cover and land use, enabling knowledge about land-use change to be accessible in support of conservation efforts and climate change mitigation. All MapBiomas data are public and transparent, and can serve as a reference for development regulations, public policy, and decision-making to assess impacts on natural ecosystems and ensure long-term protection.

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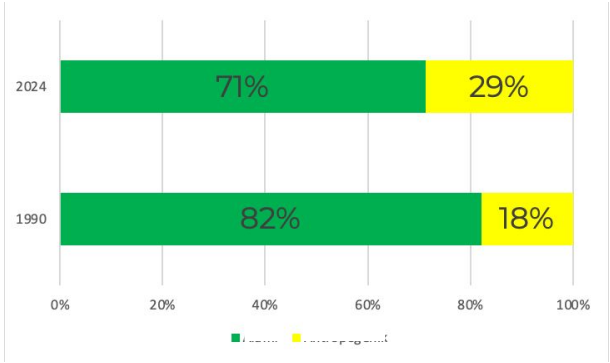
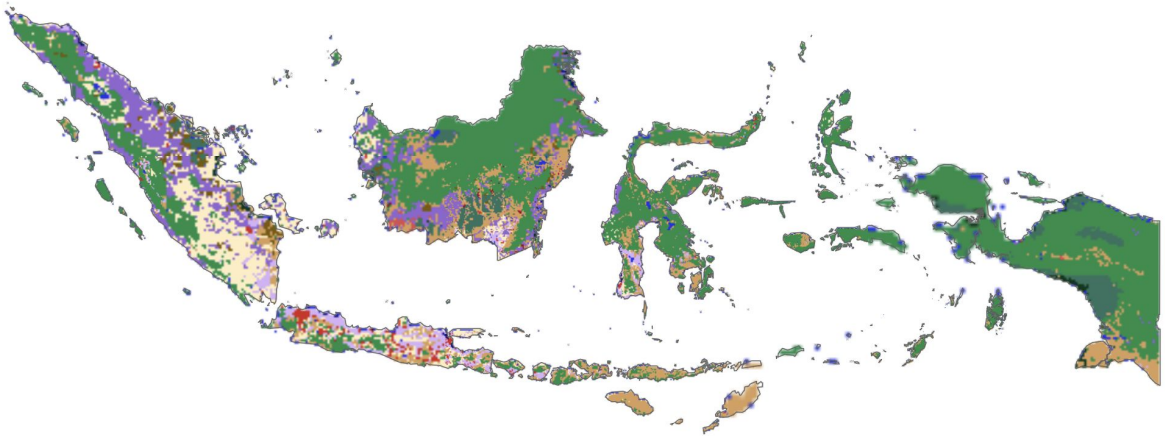
Land Cover Dynamics of Indonesia 2024

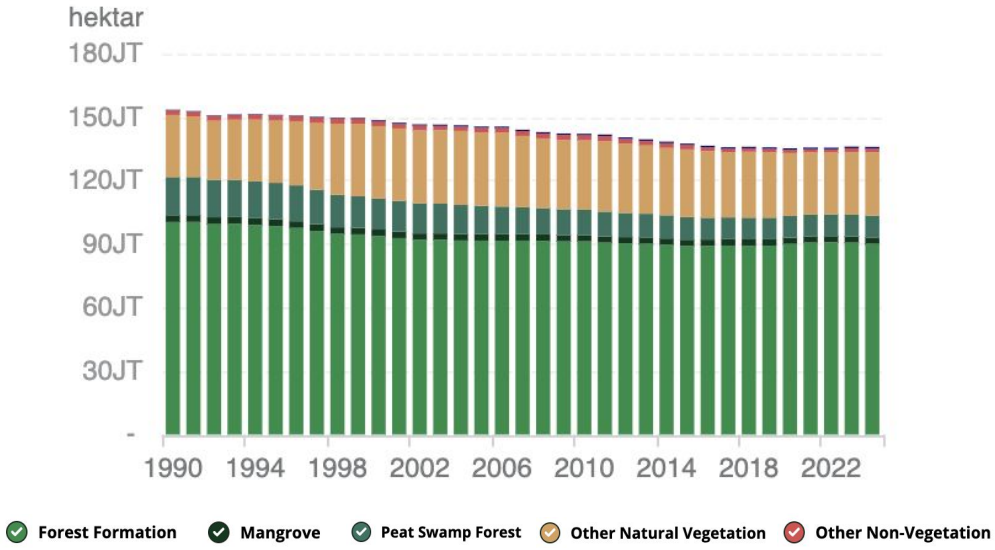
Approximately **71 percent of Indonesia's terrestrial area is still dominated by natural cover**, and **more than half of it (56 percent)** consists of **natural forest.** On the other hand, around **29 percent of Indonesia's terrestrial area has become anthropogenic**, reflecting various human activities, particularly for **agriculture, plantations, settlements, and other land uses**.





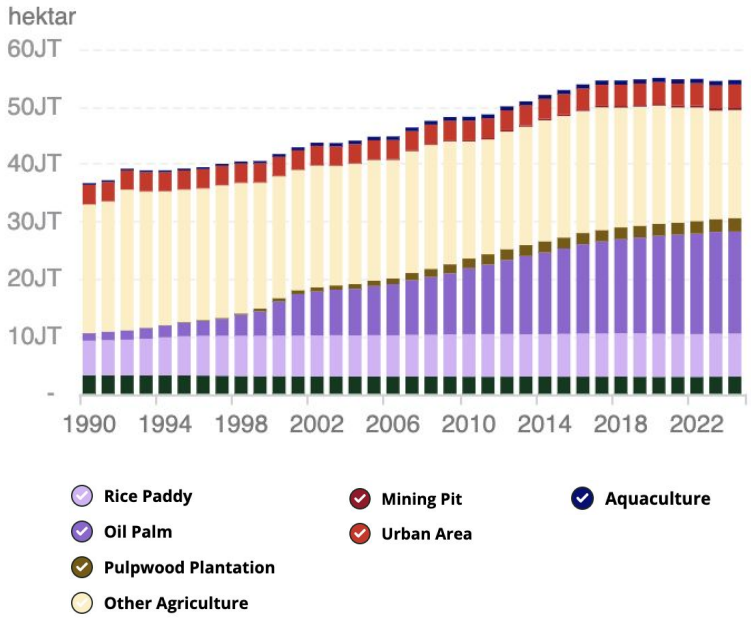
Legend	Land Cover/Use	Year 2024 (Ha)
	1. Forest	**106.126.413**
	1.1. Forest Formation	92.781.299
	1.2. Mangrove	3.001.560
	1.3 Peat swamp forest	10.343.553
	2. Non-Forest Natural Formation	**27.293.467**
	2.1. Other Natural Vegetation	27.293.467
	3. Agriculture	**46.421.848**
	3.1. Rice Paddy	18.820.222
	3.2. Oil Palm	17.743.808
	3.3. Pulpwood Plantation	7.486.790
	3.4. Other Agriculture	2.371.028
	4. Non-Vegetated Area	**6.148.951**
	4.1. Mining Pit	3.950.536
	4.2. Urban Area	1.710.938
	4.3. Other Non-Vegetation	487.476
	5. Water Body	**3.053.712**
	5.1. Aquaculture	2.273.409
	5.2. River, Lake, Ocean	780.303
	Grand Total	**189.044.390**

Dynamics of Natural Cover 1990-2024



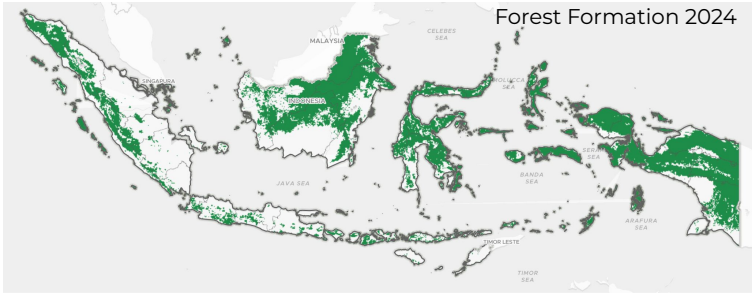
- Indonesia's natural vegetation cover in 2024 is 134.7M ha
- Between 1990 and 2024, Indonesia lost 27.5 Mha of natural vegetation
- Of this loss, 81% or 22.5 Mha consisted of natural forests (natural forest formations, mangroves, and peat swamp forests)
- Natural forest formations have been lost over an area of 14.6 M ha
- Mangroves declined by 0.44 Mha
- Peat swamp forests decreased by 8.3 Mha
- However, between 1990 and 2024, there was also a net gain of 3 Mha of natural forest

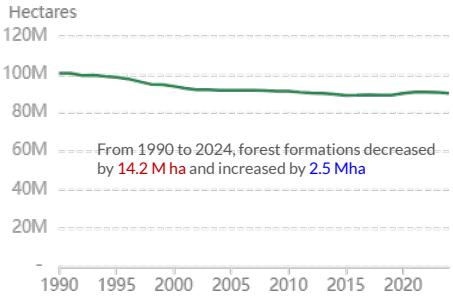
Dynamics of Anthropogenic Areas 1990-2024



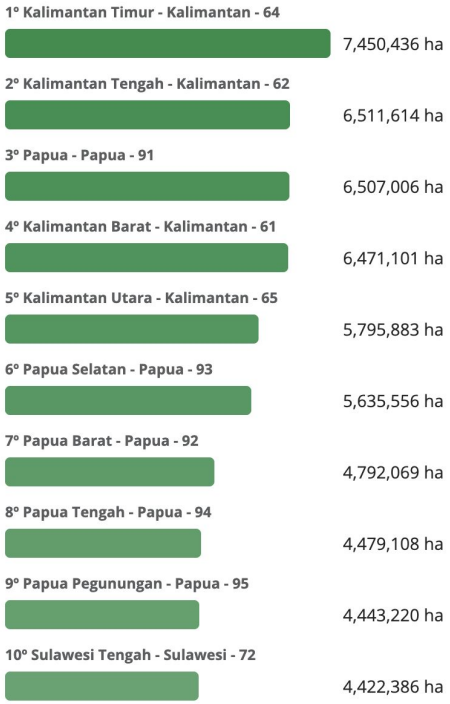
- Indonesia's anthropogenic area in 2024 covers 54.4 M ha
- Anthropogenic expansion between 1990 and 2024 reached 20.2 Mha
- Oil palm plantations became the land use with the largest expansion, reaching 16.5 Mha
- Timber plantations ranked second, expanding by 2.3 Mha
- Rice fields increased by 2 Mha
- Other anthropogenic expansions occurred in settlements, aquacultures, and mining areas, with increases of 0.97 Mha, 0.52 Mha, and 0.45 Mha, respectively

Forest Cover Loss
1990-2024





Top 10 Provinces with the Largest Forest Formation

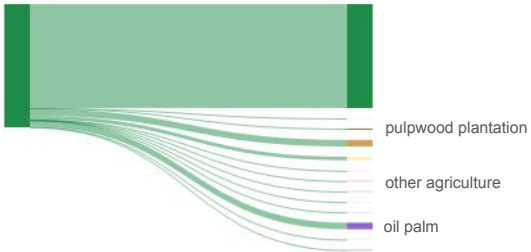


Indonesia's remaining forest formations cover **92.7 Mha** in 2024

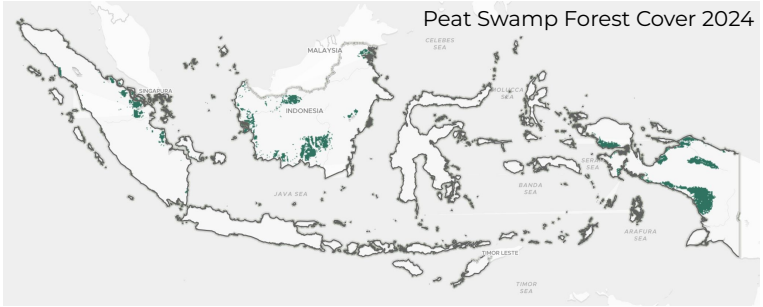
Conversion of forest formation:

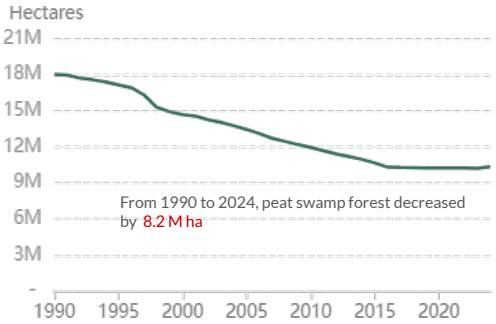
5.5 M ha to oil palm
3.1 M ha to other agriculture
0.8 M ha to pulpwood plantation

Transition of Forest Formations 1990-2024

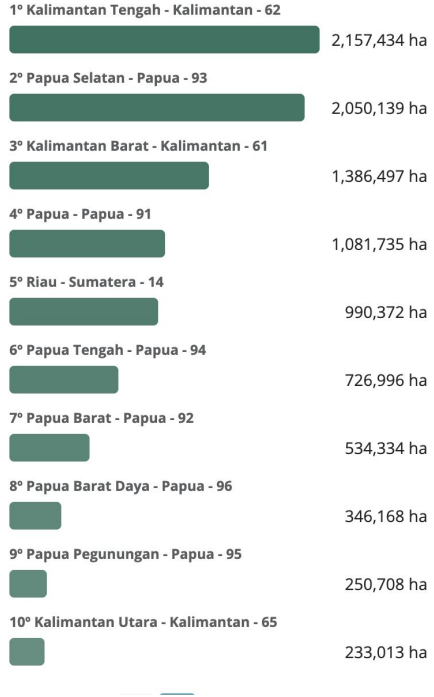


Peat Swamp Forest Loss
1990-2024





Top 10 Provinces with the Largest Peat Swamp Forests

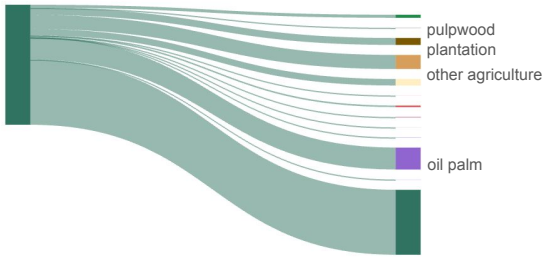


The peat swamp forest remaining area in Indonesia is **10.3 Mha** in 2024

Conversion of peat swamp forest:

3.3 Mha to oil palm
1 Mha to pulpwood plantation
1 Mha to other agriculture

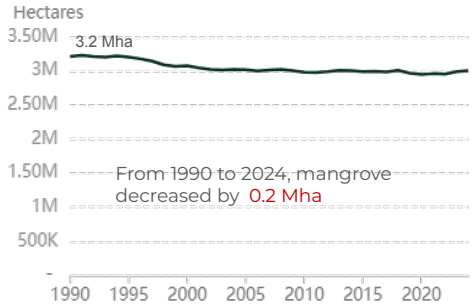
Transition of Peat Swamp Forest 1990-2024



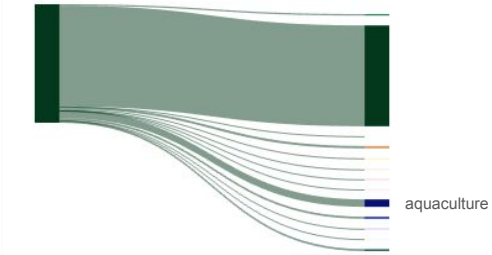
Mangrove Loss
1990-2024

Mangrove extent in Indonesia reaches **3 Mha** in 2024

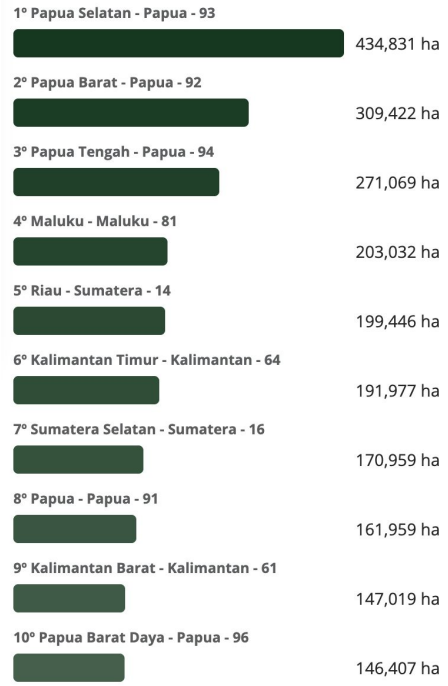
Converted into aquaculture covering 0.2 Mha



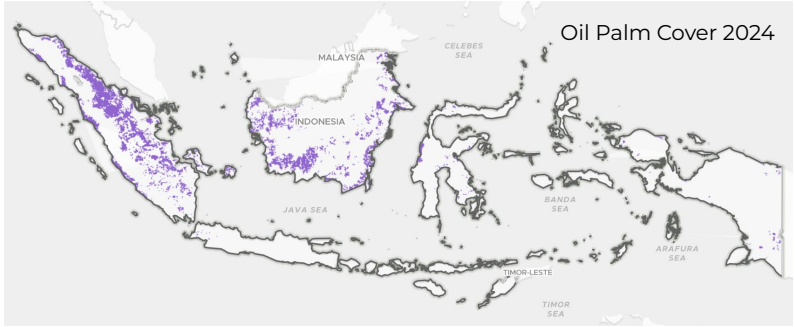
Transition of Mangrove
1990-2024

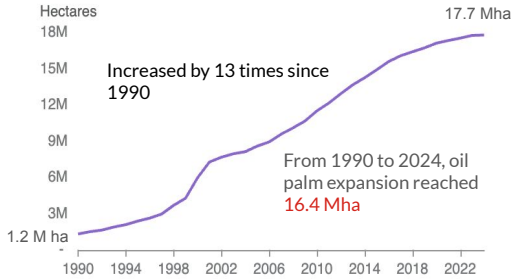


Top 10 Provinces with the Largest Mangroves

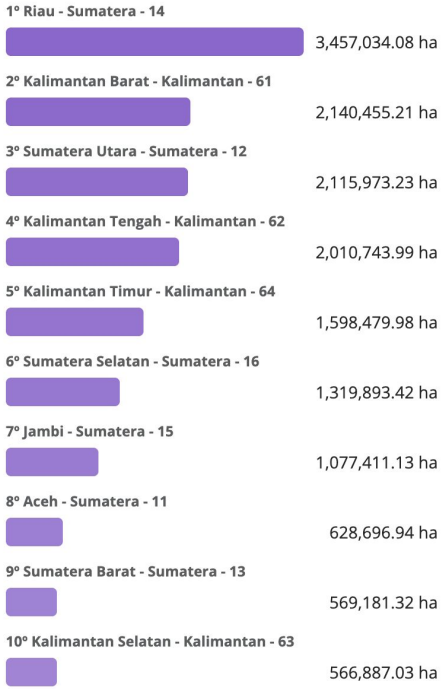


Oil Palm Expansion
1990-2024





Top 10 Provinces with the Largest Oil Palm Areas



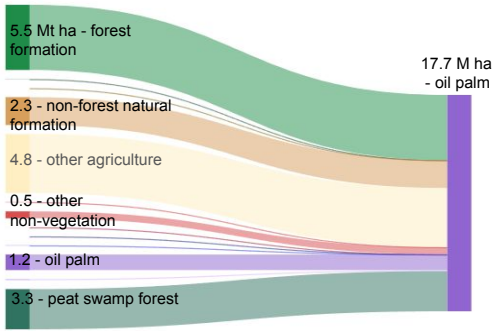
Indonesia's oil palm plantations in 2024 reach **17.4 Mha**

Oil palm expansion has led to the loss of natural vegetation:

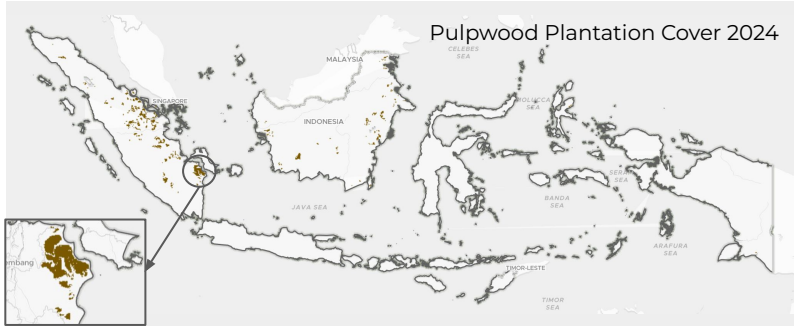
5.5 Mha of natural forest formations
3.3 M ha of peat swamp forests
2 M ha of non-forest natural formations

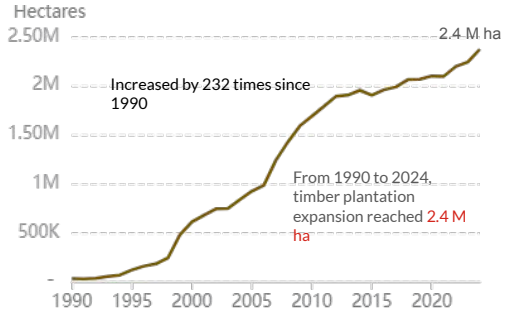
It has also converted 4.8 Mha of other agriculture

Oil Palm Transitions in 2024 Based on 1990 Land Cover Classes

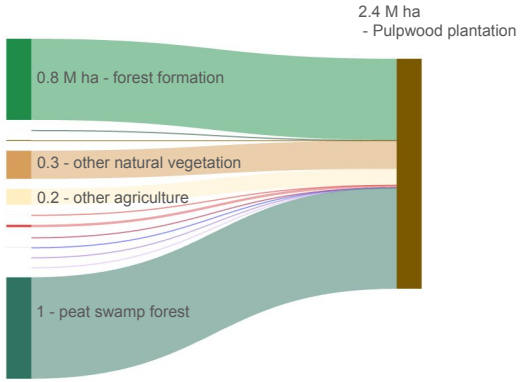


Pulpwood Plantation Expansion
1990-2024

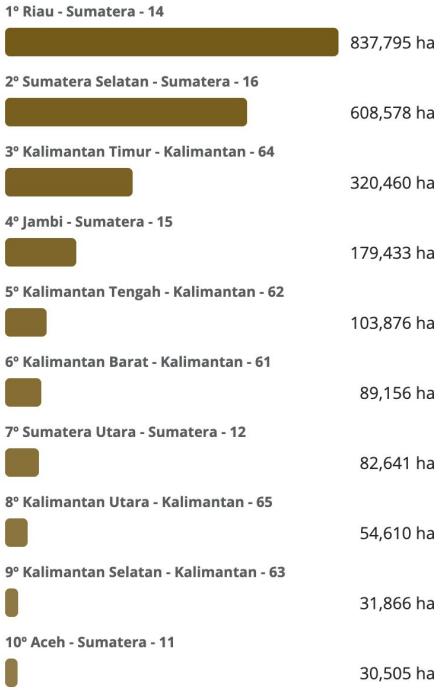




Timber Plantation Transitions in 2024
Based on 1990 Land Cover Classes



Top 10 Provinces with the Largest Pulpwood Plantation Areas



Indonesia's timber plantations in 2024 reach **2.4 Mha**

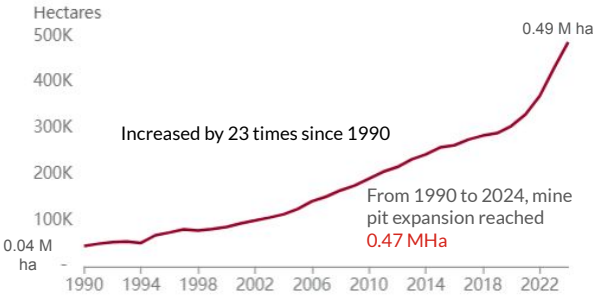
Timber plantation expansion has led to the loss of natural vegetation:

0.8 Mha of natural forest formations
1 Mha of peat swamp forests
0.3 Mha of non-forest natural formations

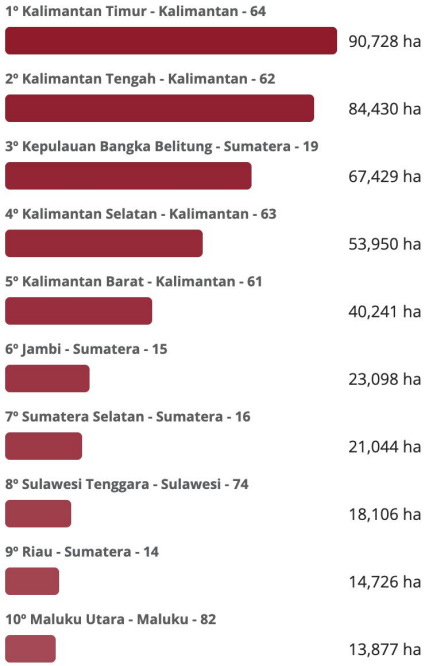
It has also converted 0.25 Mha of other agriculture

Mining Pit Expansion
1990-2024

Mining Pits 2024



Top 10 Provinces with the Largest Mining Pit Areas



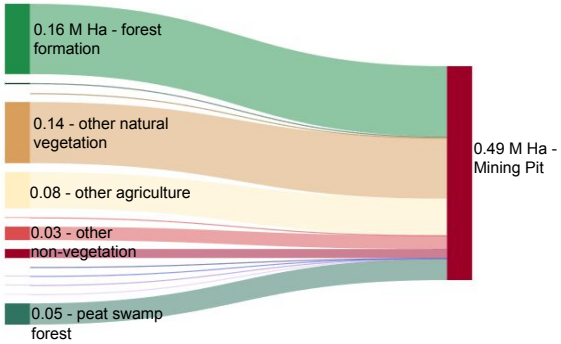
The mining pits area in 2024 reach **0.49 Mha**

Mining pit expansion has led to the loss of natural vegetation:

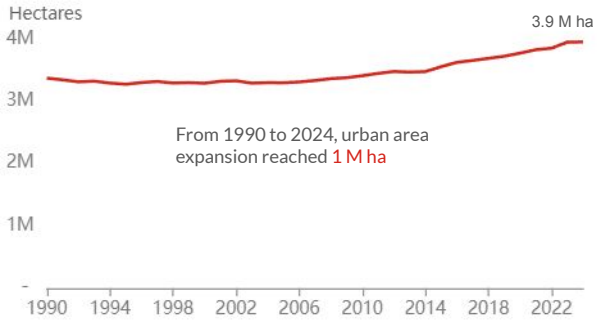
0.2 MHa of natural forest formations
0.05 MHa of peat swamp forests
0.14 MHa of non-forest natural formations

It has also converted 0.08 MHa of other agriculture

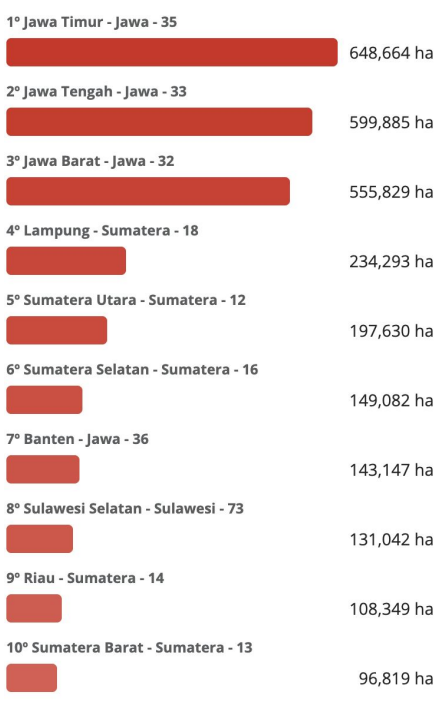
Mining Pit Transitions in 2024 Based on 1990 Land Cover Classes



Urban Area Expansion
1990-2024



Top 10 Provinces with the Largest Urban Areas



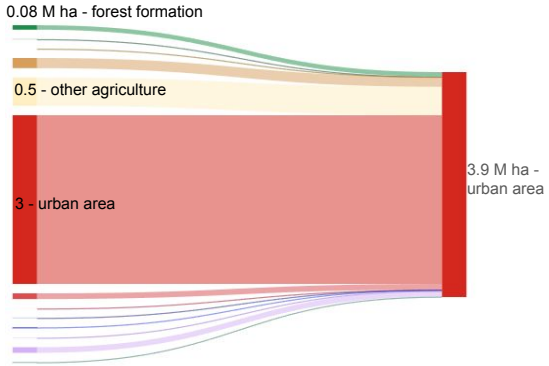
Urban area in 2024 cover **3.9 M ha**

Urban area expansion has led to the loss of natural vegetation:

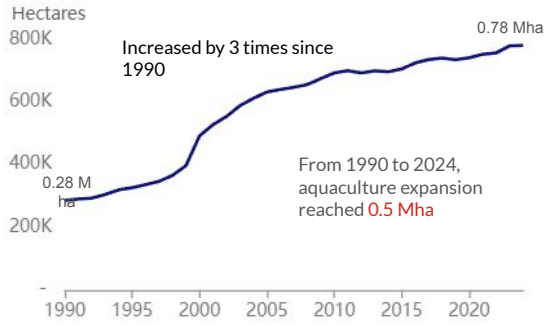
0.88 M ha of natural forest formations
0.08 M ha of peat swamp forests
0.18 M ha of non-forest natural formations

It has also converted 0.5 M ha of other agriculture

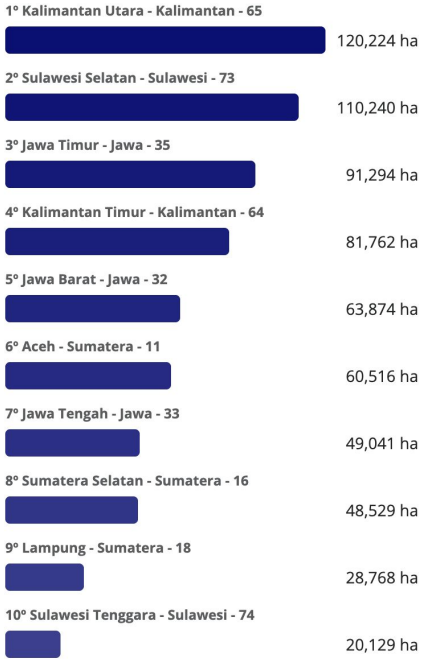
Settlement Transitions in 2024 Based on 1990 Land Cover Classes



Aquaculture Expansion
1990-2024

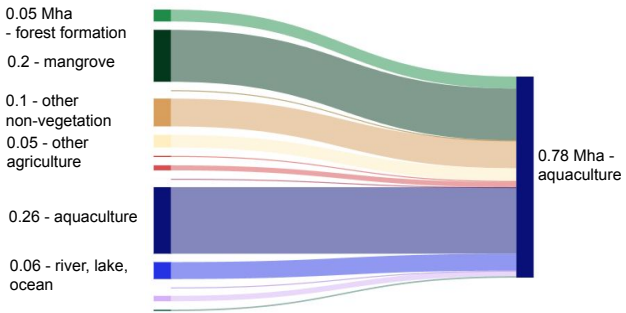


Top 10 Provinces with the Largest Aquacultures



Aquaculture area in 2024 cover **0.78 M ha**

Aquaculture Transitions in 2024 Based on 1990 Land Cover Classes

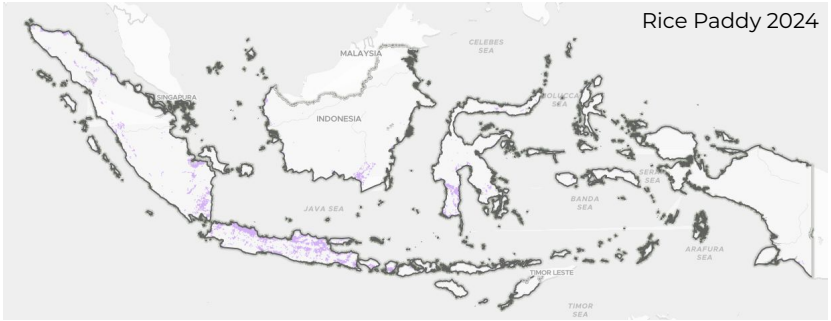


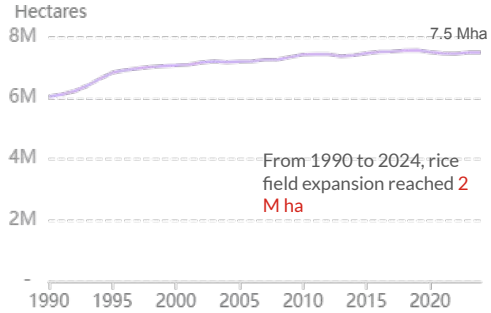
Aquaculture expansion has led to the loss of natural vegetation:

0.05 Mha of natural forest formations
0.2 Mha of mangroves
0.1 Mha of other non-vegetation

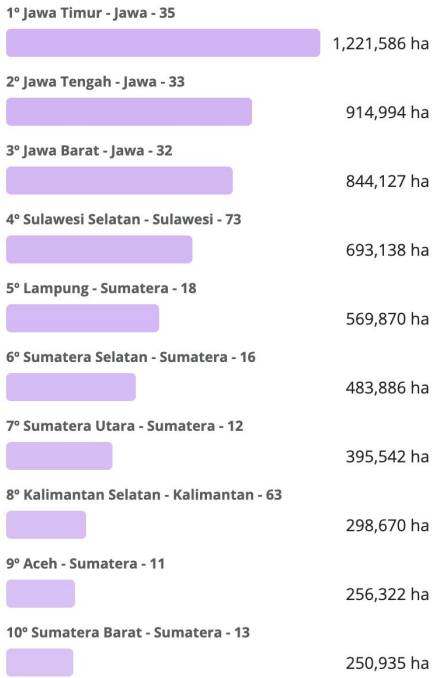
It has also converted 0.05 Mha of other agriculture

Rice Paddy Expansion
1990-2024





Top 10 Provinces with the Largest Rice Paddy Areas



Rice fields in 2024 cover **7.5 Mha**

Rice field expansion has led to the loss of natural vegetation:

0.16 M ha of natural forest formations
0.04 M ha of peat swamp forests
0.43 M ha of non-forest natural formations

Rice Field Transitions in 2024 Based on 1990 Land Cover Classes