

COMMUNITY FOREST AND MANGROVE MANAGEMENT IN THAILAND



Executive Summary

Landesa has conducted an assessment to **evaluate mangrove forest dynamics across eight Community Forests (CFs)** in coastal Thailand, comparing them to broader sub-district trends from 2001 to 2024. Despite extreme climatic shocks—including the 2004 Tsunami and the 2015–2016 ‘Mega El Niño’—**CFs demonstrated improved forest management, maintaining loss rates approximately half those of surrounding areas** (0.44% vs. 0.86%). Data suggests that the 2015 Marine and Coastal Management Act, the 2015 Royal Ordinance on Fisheries, and the 2019 Community Forest Act provided vital legal anchors, supporting ecosystems and **strengthening community-led tenure as a foundational requirement for sustainable mangrove management**.

Community Forest (Area & Certification Year)	Sub-District	Province
Ban Oa Luek Thai (102 ha - 2017*)	Ao Luek Tai	Krabi
Ban Khlong Yang (363 ha - 2016*)	Khlong Yang	Krabi
Na Tung Klang (44 ha - 2017*)	Koh Klang	Krabi
Tha Klong (64 ha - 2017*)	Koh Klang	Krabi
Thung Yai Peng (276 ha - 2017*)	Sala Dan	Krabi
Hin Dad (1 ha - 2019)	Klong Yai	Trat
Laem Klat (1 ha - 2018*)	Laem Klat	Trat
Ban Song Khong (55 ha - 2018*)	Laem Klat	Trat

***Note:** Certification years (2016–2018) reflect registration under Royal Forest Department regulations prior to the formal enactment of the CF Act (2019). The 2019 Act codified these existing projects, elevating temporary management permits into permanent, statutory tenure.

Landesa, through its **Coastal Livelihoods and Mangroves Program**, is strengthening coastal land tenure rights in the Bay of Bengal, Southeast Asia, and Africa. In **Thailand**, Landesa has a Memorandum of Understanding with the **Department of Marine and Coastal Resources** aimed at strengthening stakeholder capacity for coastal mangrove conservation.



Assessment Approach

To analyze historical trends, a **20-year longitudinal assessment** was conducted of 8 community-managed mangrove forests across coastal Thailand. While formally certified between 2016 and 2019, these sites operated under Royal Forest Department administrative CF pilots established and renewed every 5 years since the early 2000s. The study **compared mangrove forest cover dynamics between these CFs and their surrounding mangrove areas** under a mix of tenure (i.e., state-owned public domain, private title deeds, commercial leaseholds, and encroached areas) within respective sub-districts, **using remote sensing data** from the **Restor** platform and **Global Mangrove Watch**.

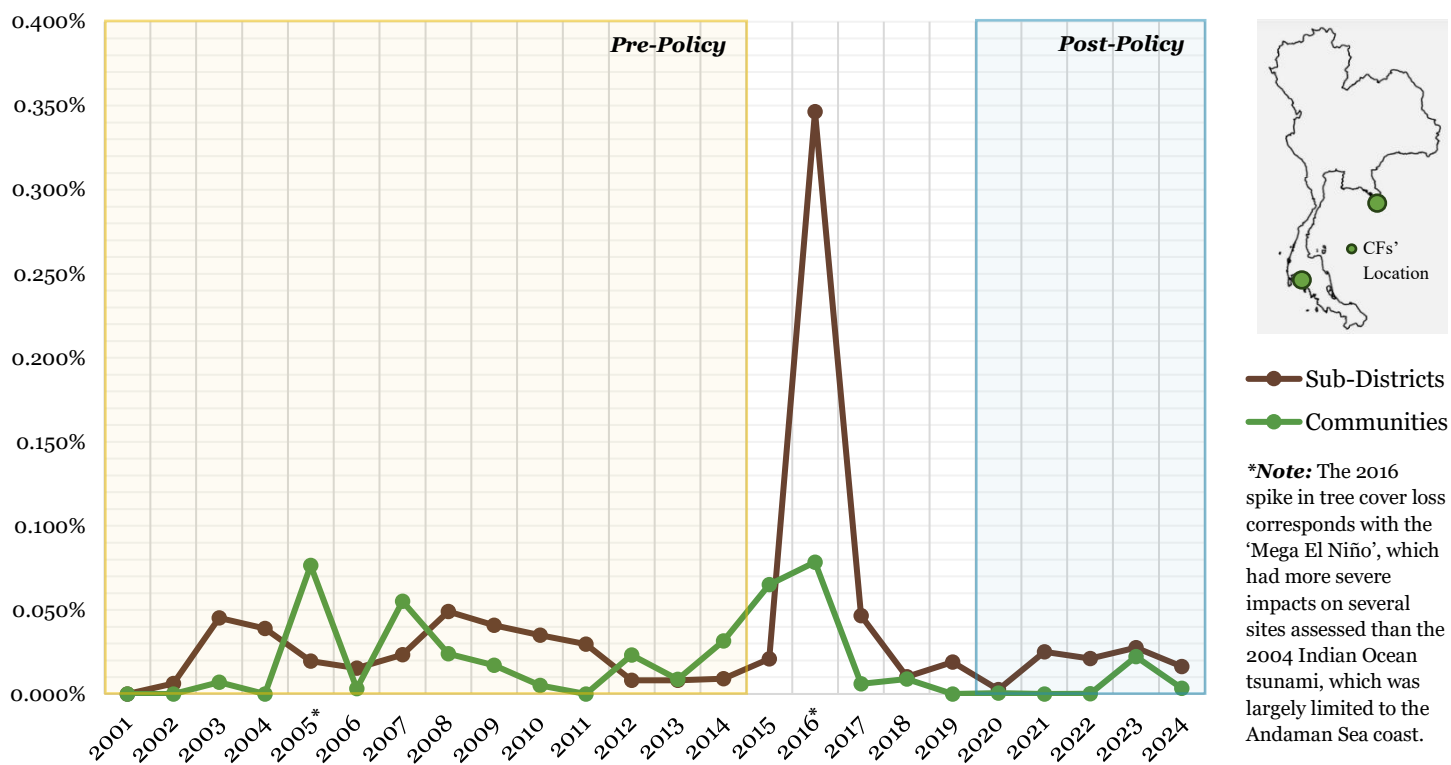
The **assessment accounted for significant natural disturbances**, specifically the 2004 Indian Ocean Tsunami, including physical damage and the subsequent spike in mangrove timber use for emergency reconstruction, and the 2015–2016 ‘Mega El Niño.’ The latter caused severe hydrological shifts, sea-level drops, and hypersalinity that impacted mangrove health.

Additionally, the **study considered key policy drivers: the Marine and Coastal Resources Management Act B.E. 2558 (2015)**, which established national and provincial committees to oversee coastal resources and empowered community stewardship over mangroves; **the 2015 Royal Ordinance on Fisheries** and its implementation through the **Marine Fisheries Management Plan (2015-2019)**, which enforced ‘zero-deforestation’ aquaculture and mandatory remapping for aquaculture; and the **2019 Community Forest Act**. This legislative milestone granted formal management rights to local communities, providing the legal foundation for participatory stewardship.



Key Findings

Mangrove Forest Annual Cover Loss as % of Total Mangrove Area — Sub-District vs. CF



Sub-District / CF	Total Mangrove Area (hectares)	Total tree cover loss / Total Mangrove Area	Avg. annual Tree cover loss Pre-Policy	Avg. annual Tree cover loss Post-Policy	Tree cover loss during 2004 Tsunami & 'Mega El Niño'
Sub-District	8,091 ha	0.86%	0.024%	0.022%	0.22%
Community Forest	906 ha	0.44%	0.018%	0.007%	0.12%



Key Insights

- Comparative Loss Rates:** Mangrove tree cover loss in CFs is significantly lower than in surrounding areas, **approximately half (0.44%)** compared to the broader sub-district average (**0.86%**).
- Policy Impact:** Following the 2015 Marine and Coastal Resources Management Act, the 2015 Royal Ordinance on Fisheries and its implementation plan, and the 2019 Community Forest Act, **average annual loss decreased with greater emphasis within CFs**. This trend suggests **these policy frameworks provided a critical legal anchor** necessary to support coastal ecosystems and community stewardship.
- Climate Resilience:** While 2015–2016 spikes correlate with the **'Mega El Niño'** and the 2005 community spike reflects the **2004 Tsunami's aftermath**, CF areas showcased lower relative loss (**0.12% vs. 0.22%**) during these crises, suggesting superior resilience.

Although natural forces influence overall trends, the **variance outside of major climatic events is directly linked to anthropogenic factors**. The significantly lower deforestation rates in CF-managed zones **reinforce the role of community tenure for strengthening sustainable mangrove management**.