



**AFoCO** REDD+ Fact Sheet Series

# Thailand

*Compiled in 2023*

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Asian Forest Cooperation Organization

## ABBREVIATIONS

AD	Activity Data
BSM	Benefit Sharing Mechanism
CO <sub>2</sub>	Carbon Dioxide
DMCR	Department of Marine and Coastal Resources
DNP	Department of National Parks, Wildlife and Plant Conservation
EF	Emission Factor
FCPF	Forest Carbon Partnership Facility
FREL	Forest Reference Emission Levels
FRL	Forest Reference Level
KBA	Key Biodiversity Area
LT-LEDS	Long-term Low Greenhouse Gas Emission Development Strategy
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
NFI	National Forest Inventory
RFD	Royal Forest Department
SFM	Sustainable Forest Management
SIS	Safeguard Information System
SLM	Sustainable Land Management
WRF	Warsaw REDD+ Framework

# THE KINGDOM OF THAILAND

## SUMMARY

Thailand's forest cover has slightly increased from 37.2% in 2000 to 38.9% in 2020. Thailand has no sectoral mitigation targets including forestry, but the country has an adaptation plan regarding forestry. Thailand considers Cooperative Approaches under Article 6 of the Paris Agreement in Nationally Determined Contribution (NDC) (2020). Regarding Warsaw REDD+ Framework (WRF), only Forest Reference Emission Level/Forest Reference Level was developed and submitted to UNFCCC. Thailand has no REDD+ projects and REDD+ readiness initiatives. Thailand needs to build or implement the initiatives and projects related to the UN-REDD.

## 1. COUNTRY OVERVIEW

The Kingdom of Thailand (Thailand) is one of the most biodiversity-rich countries, located at the center of Southeast Asia with a land area of 510,890 km<sup>2</sup>. About 38.9% of the country is covered by forest, and the proportion of terrestrial key biodiversity areas that are covered by designated protected areas is 71.1% in 2020. Thailand is categorized into key areas: the northern region is hilly and mountainous, the northeast region is a high plain, with the central region as a large, low plain, the eastern region has valleys and small hills, with the western region being hilly and mountainous. The southern end of the country is a peninsula with the Andaman Sea to the west and Gulf of Thailand<sup>1</sup>. Located in the tropical region, Thailand's climate is relatively warm all year round<sup>2</sup>. The total population was 69,950,844 in 2021. The country has a GDP per capita of \$7,233.4 (2021), growing rate was 1.6% (2020).

*Table 1. General status of Thailand*

Official name (ISO code)	Kingdom of Thailand (THA)
Capital	Bangkok
Population	69,950,844 (World Bank, 2021)
GDP per capita	USD 7,233.4 (World Bank, 2021)
GDP growth (annual)	1.6% (World Bank, 2021)
Climate	Warm and rather humid tropical country with monsoonal climate.
Land Area	510,890 km <sup>2</sup>
Forest Area	198,730 km <sup>2</sup> (38.9% of land area) (World Bank, 2020)
Important sites for terrestrial biodiversity protected	71.1% (UN, 2020)

<sup>1</sup>Climate Risk Country Profile: Thailand (2021): The World Bank Group and the Asian Development Bank

<sup>2</sup>Thailand (2018). Third National Communication to the UNFCCC. URL: <https://unfccc.int/sites/default/files/resource/Thailand%20TNC.pdf>



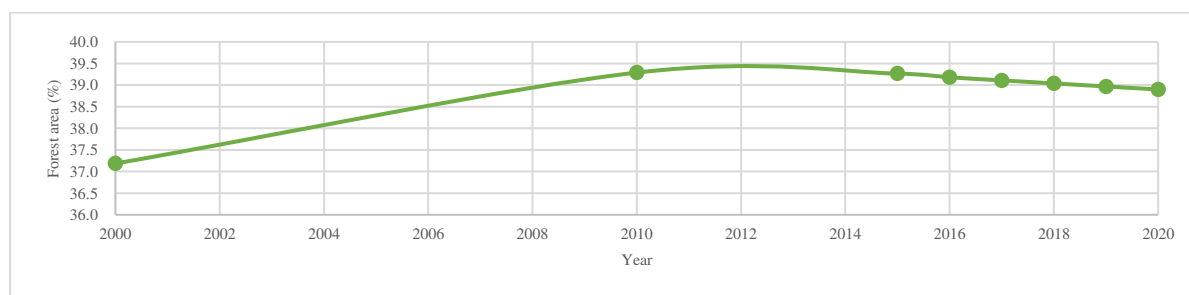
Figure 1. General Map of Thailand

Source: <https://www.un.org/geospatial/content/thailand>

## 2. SUSTAINABLE DEVELOPMENT GOALS

According to the SDG 15 Life on land, Thailand’s forest area as a proportion of total land area increased from 37.2% in 2000 to 39.3% in 2015 and decreased slightly of 38.9% in 2020.

Figure 2. 15.1.1. Forest area as a proportion of total land area (%)

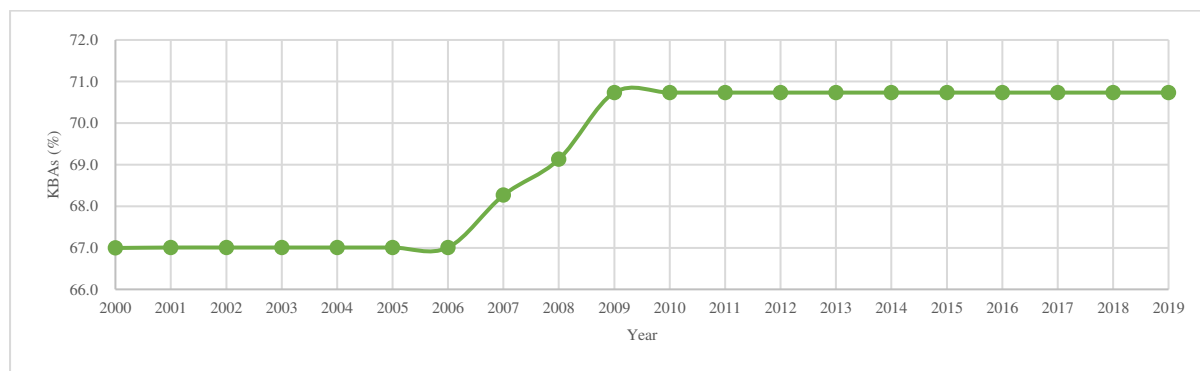


Year	2000	2010	2015	2016	2017	2018	2019	2020
Forest area (%)	37.2	39.3	39.3	39.2	39.1	39.0	39.0	38.9

Raw data: UNSTATS SDG Indicators

Thailand’s average proportion of terrestrial key biodiversity areas (KBAs) covered by protected areas readily increased from 67.0% in 2000 to 70.7 % in 2019.

*Figure 3. 15.1.2. Average proportion of Terrestrial Key Biodiversity Areas (KBAs) covered by protected areas (%)*



Year	2000	2007	2008	2009	2010	2019
KBAs(%)	67.0	68.3	69.1	70.7	70.7	70.7

Raw data: UNSTATS SDG Indicators

### 3. NATIONALLY DETERMINED CONTRIBUTION (2020)<sup>3</sup>

The Second Updated NDC of Thailand was submitted to the UNFCCC on November 20, 2022. It outlines Thailand's updated goals and commitments to mitigating and adapting to the impacts of climate change.

*Table 2. Role of forests reported in NDCs*

Mitigation		Adaptation
Unconditional	Conditional	
Y	Y	Y

\* Y: reported/ N: unreported

#### 3.1. Mitigation Targets

Unconditional NDC is a 20% reduction from BAU level by 2030, and Conditional NDC is up to 25% from BAU by 2030. The level of contribution increases up to 25%, subject to adequate and enhanced access to technology development and transfer, financial resources and

<sup>3</sup>Thailand Nationally Determined Contribution (2020), pp.1-8.

capacity building support. Thailand is formulating its Long-term Low Greenhouse Gas Emission Development Strategy (LT-LEDS) which will guide Thailand towards a climate-resilient and low greenhouse gas emissions development and serve as a basis for enhancing its subsequent NDCs. Although the NDC target in 2030 excludes the land use, land-use change, and forestry sector as part of its implementation, the protection and conservation of forest has been implemented continuously to be a good basis for future actions.

*Table 3. Forest-based mitigation Targets, Policies, Plans, and Actions in NDCs*

	Afforestation	Reforestation	Conservation	REDD+	SFM	SLM	Wetlands
Targets	N	N	N	N	N	N	N
Policies	N	N	N	N	N	N	N
Plans	N	N	Y	N	Y	Y	N
Actions	N	N	N	N	N	N	N

\* Y: reported/ N: unreported

\*SFM: Sustainable Forest Management/ SLM: Sustainable Land Management

Source: <https://www.climatewatchdata.org/>

### 3.2. Adaptation Plan

Thailand has developed the National Adaptation Plan (NAP) with the aims to build adaptive capacity and enhance climate resilience in 6 priority sectors including water resources management, agriculture and food security, tourism, public health, natural resources management, and human settlements and security.

*Table 4. Forest-based adaptation commitments in NDCs*

Afforestation	Reforestation	Conservation	REDD+	SFM
N	N	N	N	Y

\* Y: reported/ N: unreported

\*SFM: Sustainable Forest Management/ SLM: Sustainable Land Management

Source: <https://www.climatewatchdata.org/>

*Table 5. Adaptation Components<sup>4</sup>*

Components	Objectives
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<sup>4</sup>Thailand Nationally Determined Contribution (2020), pp.1-8.

Natural resources management sector	It aims to sustainably manage natural resources and biodiversity to respond to climate change impacts by enhancing the conservation, rehabilitation, and sustainable use of natural resources and biodiversity and strengthening public participation.
Water resources management sector	It aims to increase water security and reduce loss and damage from water-related disasters by developing mechanisms and approaches for integrated water resources management and building adaptive capacity and climate resilience to manage climate risks in water resources management
Agriculture and food security sector	It aims to maintain productivity and food security by increasing the ability to respond and manage climate risks in the agricultural sector.
Tourism sector	It aims to strengthen the capacity of the tourism sector towards climate resilience and sustainable growth by enhancing disaster management and climate risk reduction
Public health sector	It aims to enhance the capacity of the public health system to manage health risks and reduce health impacts from climate change by developing health impact surveillance and prevention mechanisms and enhancing access to good quality public health services.
Human settlements and security sector	It aims to enhance the capacity of individuals, communities, and cities, to adapt to climate change impacts in accordance with the local context by developing mechanisms to manage climate risks and impacts.

### ***3.3. International market-based cooperation***

Thailand recognizes the important role of international market-based cooperation in contributing to the mitigation of greenhouse gas emissions and promoting sustainable development. Thailand will continue to explore the potentials of bilateral, regional and multilateral market-based cooperation, including in the context of Article 6 of the Paris Agreement, that can facilitate, expedite and enhance technology development and transfer, capacity building and access to financial resources that support Thailand's sustainable transition towards low-carbon and climate-resilient growth

### ***3.4. Relevance to forestry Sector***

Regarding NAP, natural resources management sector aims to sustainably manage natural resources and biodiversity to respond to climate change impacts by enhancing the conservation, rehabilitation, and sustainable use of natural resources and biodiversity and strengthening public participation.

## **4. UNFCCC Warsaw Framework**



The Thailand has not yet submitted any of the four Warsaw Framework elements to the UNFCCC.

National Strategy / Action Plan	National Forest Monitoring System	Forest Reference Level / Forest Reference Emission Level	Safeguards Information System
N	N	Y	N

Source: UN REDD+ web platform (<https://redd.unfccc.int>)

#### **4.1. National REDD+ Strategy/Action Plan<sup>5</sup>**

REDD+ strategy preparation will ensure that the elements of social and environmental sustainability are firmly embedded in the technical proposals for proposed REDD+ activities. It has the following three subcomponents: (a) Land Use, Drivers of Land Use Change, Forest Law, Policy and Governance; (b) REDD+ Strategy options; and (c) Social and Environmental Sustainability/Grievance Mechanism. However, the National REDD+ Strategy or Action Plan could not find in UN REDD+ web platform.

#### **4.2. Forest Reference (Emission) Levels (2021)<sup>6</sup>**

The national Forest Reference Emission Level (FREL)/Forest reference level (FRL) was submitted to UNFCCC assessed in 2021. The national FRL proposed by Thailand is the annual average of the carbon dioxide (CO<sub>2</sub>) removals, which are the sum of emissions associated with forest degradation and removals associated with enhancement of forest carbon stocks and the conversion of non-forest land to forest land. Under the proposed FRL, separate values are not calculated for forest degradation and enhancement of forest carbon stocks; owing to technical limitations, a single aggregated value of the net effect of these two activities combined is provided.

The Activity Data (AD) used in constructing the FREL/FRL were estimated using a sample-based approach applied to a stratified map produced from a historical time series of forest and non-forest maps developed by Department of National Parks, Wildlife and Plant Conservation (DNP) and Royal Forest Department (RFD) for 2006 and 2016. The Emission Factors (EFs) were obtained from Thailand's National Forest Inventory (NFI). For the forest type of mangrove only, a separate data set was used from a Department of Marine and Coastal Resources (DMCR) study.

<sup>5</sup>Thailand, Ministry of Natural Resources and Environment, (2020). Forest Carbon Partnership Facility (FCPF) REDD+ Readiness Project Mid-Term Review. pp.6-9.

<sup>6</sup>Thailand, Report on the technical assessment of the proposed forest reference emission level and forest reference level of Thailand submitted in 2021, (2021). pp.1-4.

The FREL and FRL presented in the modified submission for 2006–2016 correspond to 12,341,444 and –28,622,811 tCO<sub>2</sub>e/year, respectively. The proposed FREL/FRL includes the pools above-ground biomass and belowground biomass and excludes the pools litter, deadwood and soil organic carbon.

The proposed FREL/FRL includes the pools above-ground biomass and belowground biomass and excludes the pools litter, deadwood and soil organic carbon. Regarding gases, the submission includes CO<sub>2</sub> only.

#### **4.3. National Forest Monitoring System<sup>7</sup>**

Forest Monitoring and Emissions, is expected to develop a monitoring system for REDD+ including the design of the approach and development of the FREL/FRL. It has two subcomponents as follows: (a) Reference Emissions Level; and (b) Forest Monitoring.

#### **4.4. Safeguard Information System<sup>8</sup>**

The development of the country-level REDD+ safeguard approach, Safeguard Information System (SIS) was not actually started. The development of the Benefit Sharing Mechanism (BSM) was only at the initial stage.

### **5. REDD+ PROJECTS / INITIATIVES**

#### **5.1. REDD+ Projects**

Not available.

#### **5.2. REDD+ Initiatives**

*Table 6. REDD+ Initiatives*

<b>Development Partner</b>	<b>Initiatives</b>	<b>Objectives</b>	<b>Period</b>
Forest Carbon Partnership Facility (FCPF)	FCPF Readiness Preparation Grant <sup>9</sup>	FCPF readiness support	2016

<sup>7</sup>Thailand, Ministry of Natural Resources and Environment, (2020). Forest Carbon Partnership Facility (FCPF) REDD+ Readiness Project Mid-Term Review. pp.6-9.

<sup>8</sup>Thailand, Ministry of Natural Resources and Environment, (2020). Forest Carbon Partnership Facility (FCPF) REDD+ Readiness Project Mid-Term Review. pp.6-9.

<sup>9</sup>Thailand, Government Completion Report, (2020). pp.1.

## <Additional Contents>

### **The forest sector– further involvement from private sector**

The private sector in Thailand is already investing in Green Bonds and there are instruments for issuers and investors to raise and channel financing for projects that address climate change and other environmental concerns in Thailand. The IFC has been a pioneer of the Green Bond market and is one of the largest global issuers of Green Bonds and together with Asian Development Bank they are helping Thailand to further develop investment in Green bonds.

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Asian Development Bank. (2021.) Climate Risk Country Profile: Thailand.

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