THAILAND
CLIMATE GOVERNANCE AND LOW CARBON TRANSITION TO A NET ZERO FUTURE

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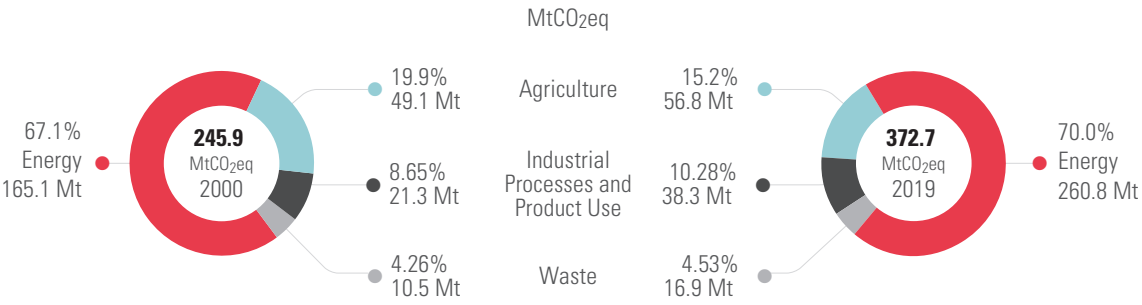
Over the past two decades, Thailand's greenhouse gas emissions have increased sharply - rising by more than 50% between 2000 and 2019, as presented in **Figure 1**. This growth reflects the combined effects of rapid economic expansion, urbanization, industrial development, and a steep rise in energy use and transportation demand.

By 2019, total national emissions were estimated at around 373 million tonnes of CO_2 equivalent ($MtCO_2eq$) (excluding land-use and forestry). The energy sector was the dominant source, responsible for nearly 70% of emissions, followed by agriculture (15%), industrial production (10%), and waste management (5%).

As shown in **Figure 2**, within energy, most emissions came from electricity generation (about 93 $MtCO_2eq$), road transport (72 $MtCO_2eq$), and fuel consumption in manufacturing (52 $MtCO_2eq$). In agriculture, the largest contributor was rice cultivation (29 $MtCO_2eq$), alongside methane from livestock. Industry-related emissions were mainly from cement and chemical production, while emissions from waste came largely from landfills and wastewater treatment.

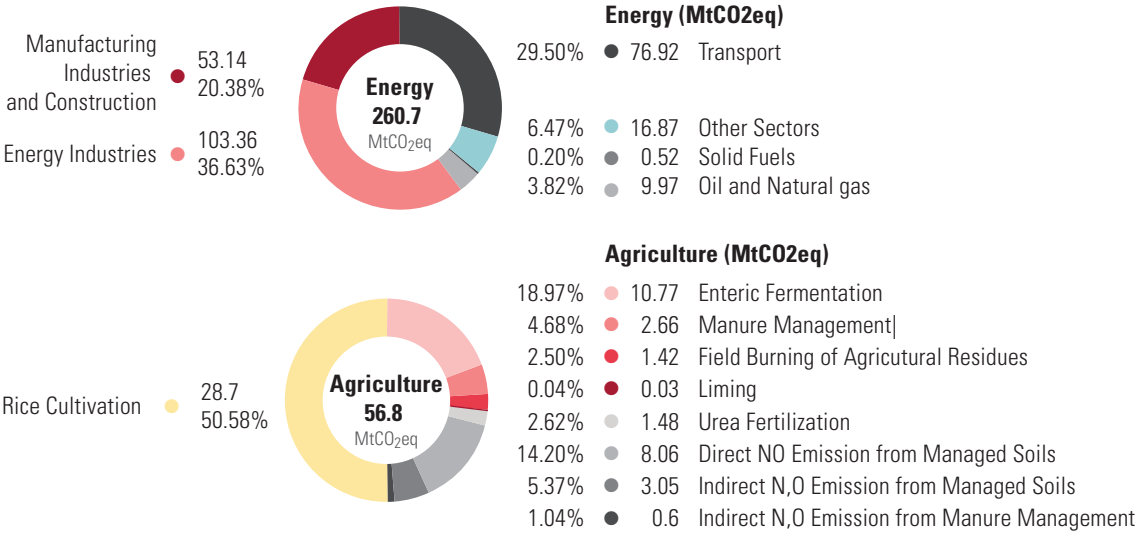
In contrast, Thailand's land use and forestry sector provided an important carbon sink, absorbing nearly 92 $MtCO_2eq$ in 2019. Much of this was linked to croplands and rubber plantations, with emissions from deforestation declining significantly since 2000. This highlights the critical role of land and forest management in balancing the country's emissions profile.

Figure 1. Total GHG emissions by sector (excluding LULUCF), 2000 and 2019



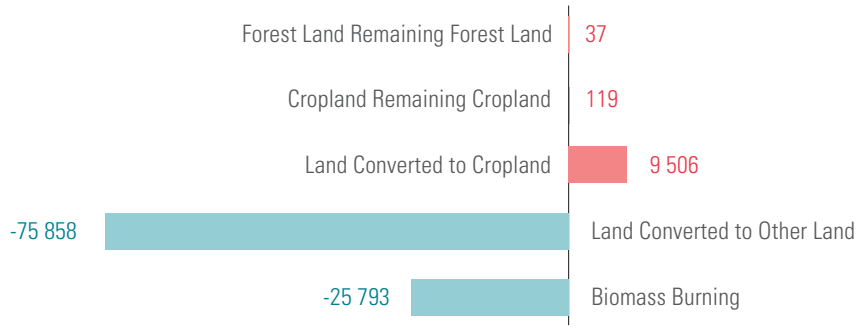
Source: ONEP, 2022.

Figure 2. GHG emissions in energy sector and agriculture sector, 2019



Source: ONEP, 2022.

Figure 3. Figure 3 GHG emissions in LULUCF sector, 2019



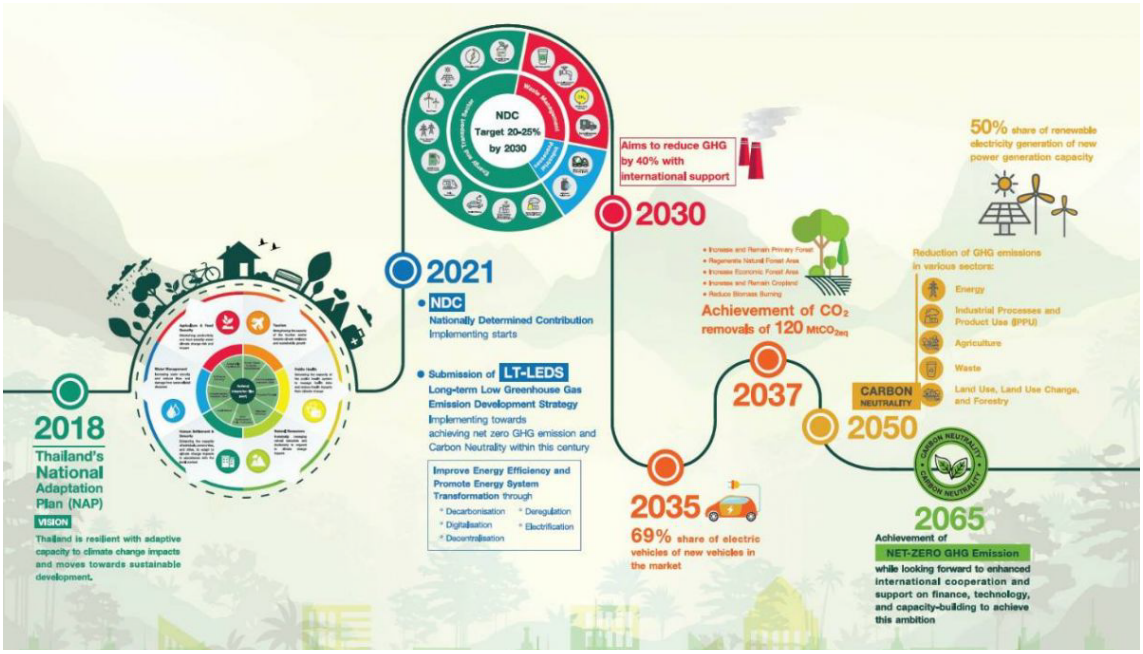
Source: ONEP, 2022

THAILAND'S LONG-TERM LOW GREENHOUSE GAS EMISSION DEVELOPMENT STRATEGY

Thailand's climate policy is increasingly informed by a long-term perspective, anchored in its commitment to achieve carbon neutrality by 2050 and net-zero GHG emissions by 2065. This vision is outlined in the Long-Term Low Greenhouse Gas Emission Development Strategy (LT-LEDS), revised in November 2022, which serves as the nation's overarching framework for long-term climate action. Unlike many long-term strategies that remain primarily economy-wide, Thailand's LT-LEDS sets out sectoral pathways for energy, transport, industry, agriculture, waste, and forestry, with varying degrees of detail from renewable energy expansion and coal phase-out in the power sector, to EV adoption in transport, clinker substitution in cement, and low-methane rice cultivation in agriculture. These targets were formally announced at COP26, where Thailand also pledged to enhance its Nationally Determined Contribution (NDC)—raising its 2030 GHG reduction target from 20–25% to 30–40%, conditional on international support. Importantly, these long-term goals are embedded in key national frameworks: 20-Year National Strategy, which serves as the country's legally binding development blueprint guiding all ministries; the Climate Change Master Plan (2015–2050), which provides the overarching framework for mitigation, adaptation, and climate governance; and the National Energy Plan (2022) , which defines medium- and long-term energy system transformation. Together, these frameworks signal a coordinated and integrated approach to aligning climate ambition with Thailand's broader development agenda.

Thailand's Long-Term Greenhouse Gas Emission Development Strategy (LT-LEDS, 2021) outlines a carbon neutrality pathway that primarily targets CO_2 emission reductions in the energy sector, which is the country's largest GHG emitter. Key initiatives include the National Energy Plan 2022, which aims for at least 50% renewable energy in new power generation capacity by 2050, and for electric

Figure 4. Thailand's Long-term Greenhouse Gas Emission Development Strategy



Source: LT-LEDS, 2021.

vehicles (EVs) to comprise 69% of new vehicles by 2035. Carbon removal from LULUCF sector is expected to increase to 120 $MtCO_2$ by 2037. For the 2065 net-zero GHG emission pathway, LULUCF's contribution is projected to stabilize from 2037 onwards, aligning with the national target to increase forest and green areas to 55% of Thailand's total land area. This phase will also require a coal phase-out and the deployment of negative emission technologies, such as Bioenergy with Carbon Capture and Storage (BECCS). While these transitions may lead to a modest decline in GDP—1.31% by 2050 and 2.6% by 2065—they are expected to generate positive economic gains in green industries and bring co-benefits such as improved public health. The LT-LEDS outlines long-term mitigation actions across various sectors:

- **Energy**: Large-scale expansion of renewables, with solar and wind projected to supply 65% of electricity by 2060, supported by EV adoption under the 30@30 policy and the longer-term introduction of CCS/CCUS.
- **Industrial:** Transition toward the **Bio, Circular and Green (BCG) economy,** Thailand's flagship model launched in 2021 to integrate bio, circular, and green principles across key sectors (e.g. food and agriculture, energy and biochemicals) alongside clinker substitution in cement and the longer-term use of CCS/CCUS in hard-to-abate industries
- **Agriculture:** Adoption of low-methane rice cultivation practices and improved manure management as key mitigation measures.
- **Forestry:** Expansion of forest and green areas to 55% of land by 2037 through afforestation, reforestation, and community forest management.
- Beyond mitigation, Thailand is dedicated to a Climate-Resilient Development Pathway, vital for a country highly vulnerable to climate change impacts. The National Adaptation Plan (NAP) guides adaptation efforts across six priority sectors: water resource management, agriculture and food security, tourism, public health, natural resource management, and human settlements and security.

The quality of Thailand's long-term climate commitment is reinforced by a strong analytical foundation, including scenario modeling and sectoral roadmaps for energy, transport, and land use. These technical studies—developed with support from domestic institutions and international partners such as GIZ, UNDP, and the NDC Partnership—ensure that the country's mitigation targets are evidence-based and grounded in realistic transition pathways.

LT-LEDS now plays a central role in shaping national and sectoral policy discourse. It directly informs NDC updates and has led to improved inter-ministerial coordination, particularly through the National Committee on Climate Change Policy (NCCC). As part of Thailand's climate governance framework, the LT-LEDS is institutionalized through Cabinet endorsement and serves as a reference for sectoral action plans prepared by line ministries under the NCCC's oversight. The proposed Climate Change Act[1] seeks to further institutionalize this long-term outlook by mandating carbon budgeting, aligning sectoral plans, and establishing monitoring and reporting systems, thereby providing legislative backing for sustained climate action. Despite persistent implementation challenges—such as mobilizing finance, building private sector readiness, and addressing local capacity gaps—the long-term vision has supported policy progress. It has helped identify actionable strategies, emphasized the need for systemic reforms like energy market restructuring, and laid the groundwork for investment mobilization.

Enabling conditions for this transformation include strengthening the regulatory framework, most notably through the forthcoming Climate Change Act, which also aims to introduce a domestic climate financing mechanism and incorporate carbon pricing instruments. Financial incentives—such as Board of Investment (BOI) tax exemptions for low-carbon technologies—and sustainable financing tools, including green and blue bonds, are actively promoted to attract investment. Thailand is also advancing its

1 https://www.tilleke.com/insights/thailands-draft-climate-change-act-key-business-considerations/

carbon market infrastructure, with mechanisms such as the Thailand Voluntary Emission Reduction Program (T-VER)[2] already in place and plans underway to develop a mandatory cap-and-trade system. Additionally, public-private partnerships—such as memoranda of understanding (MoUs) with government agencies and networks like the Thailand Climate Network (TCNN)—are helping scale up action. International collaborations also play a pivotal role, including the Glasgow Leaders' Declaration on Forests, the Thai-German Climate Programme, and initiatives like the SHIFT Program with Switzerland to scale electric bus deployment.

Collectively, these enablers address Thailand's needs in terms of technical assistance, technology transfer, and climate finance access, while reinforcing the credibility and feasibility of its long-term climate ambition. Rather than being a constraint, Thailand's long-term strategy serves as a strategic anchor that aligns policy priorities, signals investment readiness, and steers the country toward a low-carbon, climate-resilient future.

EXAMPLES OF CONCRETE PROGRESS

Over the past decade, Thailand has made notable progress in aligning its national development with long-term climate goals. While absolute emission reductions are still emerging, the country has undertaken a series of regulatory, institutional, and technological transformations that lay the groundwork for a viable transition toward a net-zero economy by 2065.

One of the most significant developments has been the consolidation of energy policy through the National Energy Plan, which integrates five key strategies: the Power Development Plan (PDP), Alternative Energy Development Plan (AEDP), Energy Efficiency Plan (EEP), Gas Plan, and Oil Plan. Together, these documents outline a coherent, cross-sectoral vision for decarbonization. The draft PDP proposes to increase total electricity generation capacity to 112 GW by 2037, with 50% from renewables, including 17% from solar PV. It also introduces hydrogen blending (5%) in gas-fired generation—a signal of Thailand's openness to cleaner fuels. Meanwhile, the AEDP targets 73 GW of renewable electricity capacity, with a strong focus on floating PV, bioenergy, and Sustainable Aviation Fuel (SAF) for decarbonizing hard-to-abate sectors like aviation.

The EEP aims to reduce energy intensity by 36% relative to 2010 levels by 2037, while the Oil and Gas Plans promote the use of hydrogen, biofuels, and gasohol, indicating a shift toward low-carbon fuels in transport and industry. Collectively, these draft plans reflect a strategic reorientation of Thailand's energy and fuel systems, designed to align with long-term climate and economic goals.

Progress has also been made on the institutional front. The establishment of the Department of Climate Change and Environment (DCCE) under the Ministry of Natural Resources and Environment (MNRE) represents a structural upgrade in climate governance. The proposed Climate Change Act will further institutionalize climate action by mandating carbon budgeting, inter-ministerial coordination, and the development of a national Monitoring, Reporting, and Verification (MRV) system. A second draft, consulted in late 2024, added provisions on a Carbon Border Adjustment Mechanism (CBAM), an updated taxonomy, and clearer sanctions. The Act is expected to be submitted to Cabinet and Parliament, with implementation currently anticipated around 2027. These frameworks ensure that climate ambition is not only a policy aspiration but also an operational reality within the public sector.

Thailand's transport sector is undergoing a parallel transformation, led by the National Electric Vehicle Policy Committee's 30@30 target, which positions EVs to account for 30% of domestic vehicle production by 2030. This target is more than a production goal; it is reshaping industrial policy by attracting BOI-supported investment, accelerating charging infrastructure rollout, and anchoring a broader shift toward electrification. At the same time, the deployment of Battery Energy Storage Systems (BESS) and ongoing

2 https://ghgreduction.tgo.or.th/en/t-ver-en.html

grid modernization are not standalone projects but critical enablers of variable renewable energy integration, particularly solar and wind. On the finance side, instruments such as the Thailand Voluntary Emission Reduction Program (T-VER), ESG disclosure guidelines, and the sustainable finance taxonomy under development by the SEC and NESDC illustrate how market mechanisms are being institutionalized to mobilize private investment. Together, these policies are creating the structural conditions for decarbonization across both the transport and power sectors.

International partnerships have played an enabling role—technical support from agencies such as GIZ, UNDP, and the Thai-German Climate Programme, along with enhanced NDC targets announced at COP26, reflect growing alignment between domestic ambition and global best practice.

While full-scale emissions reductions remain a work in progress, these foundational shifts signal that Thailand's low-carbon transition is well underway, backed by clear targets, evolving institutions, and increasing stakeholder alignment.

EXAMPLES OF CONCRETE BLOCKAGES

Despite Thailand's growing commitment to long-term decarbonization, several structural and systemic blockages continue to impede the effective implementation of its net-zero transition. While the country has made substantial progress in setting targets and aligning long-term plans with international expectations, the translation of ambition into implementation remains uneven and often hindered by political, technical, and financial constraints. These challenges manifest across governance, planning, institutional coherence, innovation systems, and social inclusion.

One of the most prominent and persistent blockages lies in centralized governance and planning. Thailand's climate and energy policy architecture continues to operate under a top-down, ministry-centric model, where key decisions are shaped by a small number of agencies, particularly the Ministry of Energy, Office of Natural Resources and Environmental Policy and Planning (ONEP), and Electricity Generating Authority of Thailand (EGAT). While this has allowed for consistency in planning, it has also led to rigidities that limit bottom-up innovation, regional flexibility, and stakeholder diversity. Local governments have minimal roles in climate action planning, and there is insufficient budgetary delegation or mandate for provincial-level implementation. This centralized model risks missing out on subnational opportunities and local knowledge that could otherwise accelerate just and place-based transitions.

Another critical challenge is the lack of clear and enforceable implementation roadmaps for sectoral mitigation. Although Thailand's LT-LEDS and National Energy Plan outline ambitious pathways, many sectors still lack operational frameworks—such as sectoral decarbonization roadmaps, carbon budgets, or enforceable GHG reduction caps. The forthcoming Climate Change Act, while a potentially transformative policy, remains in draft form. It is expected to introduce mechanisms such as carbon budgeting, MRV (Monitoring, Reporting, and Verification) systems, and legal accountability for sectoral performance, but its delay has created policy uncertainty. Moreover, new policy topics like hydrogen energy or SAF are reflected in plans but not backed by specific strategies, regulatory incentives, or infrastructure plans. This lack of downstream policy design weakens investor confidence and hinders scale-up.

A shortfall in research, development, and technology transfer is another major obstacle. While Thailand has identified new energy technologies—such as carbon capture, utilization and storage, green hydrogen, and battery energy storage—as essential to achieving net-zero, national R&D investment remains well below global averages. There is also limited cross-ministerial collaboration or private sector engagement in high-risk, high-impact innovation. International technology cooperation remains fragmented, typically confined to bilateral grants or small-scale pilots with agencies such as GIZ or UNDP.

Without enhanced support for domestic innovation ecosystems, public-private partnerships, and international R&D alliances, Thailand risks becoming a late-stage adopter rather than a proactive developer of clean technology.

Institutional and financial misalignments also slow down Thailand's progress. While the financial sector is beginning to embrace ESG principles and green taxonomies—led by the Bank of Thailand and the Securities and Exchange Commission (SEC)—public finance mechanisms are not yet fully aligned with climate goals. Key ministries, such as Finance and Labour, have yet to adopt frameworks for climate-responsive budgeting, green procurement, or climate investment evaluation. Tools such as carbon pricing, subsidy reform, and green employment funds are under discussion but remain politically sensitive and technically underdeveloped. Without these foundational mechanisms, it is difficult to reorient national development finance toward low-carbon priorities.

Another significant blockage is resistance from fossil fuel incumbents and legacy industries. State-owned enterprises and large industrial actors continue to wield considerable influence over energy planning. The continued prioritization of natural gas as a "transition fuel" in PDP and NEP documents reflects a cautious approach to phasing out fossil fuels. Proposals for carbon pricing or mandatory emissions trading are often met with opposition from industries fearing cost escalation and competitiveness loss. These dynamics have contributed to policy stagnation on crucial market-based instruments and slowed the phasing out of coal and other high-emission sources.

Finally, social inclusion and just transition considerations remain underdeveloped in Thailand's climate strategy. While "just transition" is increasingly part of the national vocabulary, concrete measures to address inequality, worker transition, and community resilience are lacking. There are no comprehensive strategies for worker reskilling, region-specific transition planning, or compensation mechanisms for communities dependent on fossil-intensive industries. Vulnerable groups—such as low-income households, informal workers, or rural communities—are rarely consulted in climate planning processes, and policy design often overlooks their specific needs.

Taken together, these blockages highlight a persistent gap between policy intent and implementation readiness. Bridging this gap will require not only legal and regulatory reform but also greater inter-ministerial coordination, investment in knowledge systems, stakeholder engagement, and the mainstreaming of equity into climate policy. Without tackling these underlying constraints, Thailand risks falling short of its climate ambitions despite commendable long-term goal setting.

LINK WITH NON-CLIMATE QUESTIONS

Thailand's national climate agenda is increasingly intertwined with broader economic, financial, and social dimensions. Policymakers, regulators, and private sector actors are beginning to understand climate change not only as an environmental threat but as a critical factor shaping the country's long-term competitiveness, financial stability, and social cohesion. Nevertheless, while momentum is growing, the depth of cross-sectoral integration remains uneven, with substantial gaps between recognition of the challenge and concrete institutional or budgetary alignment.

One of the most visible and catalytic linkages is between climate policy and trade competitiveness. The introduction of the European Union's Carbon Border Adjustment Mechanism (CBAM) has acted as a wake-up call for Thailand's export-driven economy. Thai exporters in high-emitting sectors—such as cement, steel, aluminum, and petrochemicals—now face the dual imperative of decarbonizing operations and demonstrating transparency in emissions accounting. This has prompted significant engagement from the Ministry of Commerce, the Federation of Thai Industries (FTI), and the National Economic and Social Development Council (NESDC). These actors are working together to design carbon footprint labeling, sector-level emissions bench-

marks, and explore potential carbon pricing instruments, which had previously been politically sensitive. In this context, climate policy is seen not only as a sustainability imperative but as a trade and industrial survival strategy. At the political level, CBAM has been received with concern but also as a catalyst: ministries such as Commerce and Finance quickly convened discussions with industry groups, framing CBAM as both a risk to Thailand's export competitiveness and an opportunity to accelerate domestic carbon accounting and market instrument.

In the financial sector, climate risk is increasingly viewed as a systemic risk. Institutions such as the Bank of Thailand, and leading financial institutions have joined forces to promote sustainable finance, align disclosure standards, and assess the exposure of banks and insurers to climate-related risks. The ongoing development of the Thailand Green Taxonomy, led by the SEC and NESDC, aims to classify economic activities according to their environmental impact and align capital flows with the country's decarbonization objectives. This effort complements ESG disclosure guidance, pilot climate stress-testing initiatives, and green bond frameworks, which are intended to build a more climate-resilient financial system. By aligning financial regulation with climate goals, Thailand is gradually building the market infrastructure needed to attract both domestic and international green investment.

From a social and equity perspective, the integration of climate considerations remains emergent but incomplete. Issues of energy access, affordability, and just transition are becoming more prominent, particularly in the context of rising electricity prices and the shift toward VRE. Concerns about tariff structures, the costs of system flexibility, and their impacts on low-income households and SMEs are now featuring more prominently in policy discussions involving policymakers, regulators, electric utilities, and civil society stakeholders. The need for energy equity—ensuring that vulnerable groups are not disproportionately burdened by the energy transition—is increasingly acknowledged but lacks robust policy instruments or targeted subsidies.

At the same time, Thailand's labor and industrial transformation in response to climate challenges remains in the early stages. The Ministry of Labour has not yet developed comprehensive programs for workforce reskilling, employment transition, or social safety nets for workers in carbon-intensive industries. Where the link to the broader development agenda does appear is in documents such as the 20-Year National Strategy and the BCG Economy framework, both of which frame climate action as integral to competitiveness, poverty reduction, and regional development. However, this connection is still largely rhetorical, as dedicated budgets or just transition mechanisms remain absent. The lack of an integrated climate–employment strategy presents a risk to both social stability and political support for transition measures.

On the fiscal and macroeconomic front, efforts to embed climate considerations into budgeting and public investment remain fragmented. While climate public investment management (PIM) reform is under consideration, there is no formal process yet to integrate GHG impact assessments into budget planning. Carbon taxation, while periodically discussed, remains politically sensitive and has not advanced beyond preliminary stakeholder consultations. The Ministry of Finance has not yet adopted a formal roadmap for aligning fiscal policy with climate objectives, such as adjusting subsidies, mobilizing green infrastructure funds, or incorporating shadow carbon pricing into cost-benefit analyses for infrastructure. At the macroeconomic level, modelling studies suggest that Thailand's net-zero transition could reduce GDP by around 1–3% by 2050–2065 compared to a business-as-usual trajectory, but these costs are expected to be offset by gains in green industries, reduced fossil fuel import dependency, and public health benefits.

Moreover, regional and subnational integration is still underdeveloped. While the NESDC has initiated some regional dialogues on climate and development planning, most provincial and local governments lack the mandates, resources, and technical capacity to meaningfully contribute to climate mitigation or adaptation planning. The

absence of decentralized climate governance frameworks risks reinforcing urban-rural disparities and overlooking local resilience needs.
In sum, climate policy in Thailand is beginning to intersect with critical domains such as trade, finance, and energy access, and in these areas, integration is supporting climate action. However, in fiscal, labor, and regional development policies, the institutional structures and political will needed to integrate climate considerations remain limited. For Thailand to deliver a truly inclusive and resilient net-zero transition, these connections must be deepened, and climate ambition must be fully embedded across all sectors of economic and social policy

CLIMATE GOVERNANCE FRAMEWORK

Thailand's climate governance has evolved into a comprehensive, multi-layered structure integrating policy, implementation, and international cooperation. Since 2007, the government has embedded climate change into national development agendas and created pivotal institutions to coordinate mitigation and adaptation efforts. Thailand's climate planning instruments are led by the Climate Change Master Plan (2015–2050), which outlines strategies for adaptation, mitigation, and enabling environments. Supporting instruments include the LT-LEDS and NDC Roadmap, sectoral action plans, and the National Adaptation Plan (NAP)—the latter targeting six vulnerable sectors: water, agriculture, tourism, health, natural resources, and human settlements. These instruments were developed through iterative processes that combined analytical modeling with extensive stakeholder consultations. Ministries, local governments, private sector representatives, academia, and civil society groups were all engaged through public hearings and expert workshops, with their feedback incorporated into revised drafts. This participatory approach not only enhanced the legitimacy of the policies but also ensured that they reflected both technical evidence and societal perspectives.

A cornerstone of future governance is the Climate Change Act, currently in its second draft (as of 2025). This legislation will codify Thailand's GHG targets: 30–40% reduction by 2030 (with support), carbon neutrality by 2050, and net zero by 2065. The Act introduces binding mechanisms such as an Emissions Trading System (ETS), a carbon tax, carbon credit frameworks, and a Climate Change Fund to support low-carbon technologies. Drafting of the Act has been accompanied by nationwide consultations, and its provisions—such as carbon budgets per sector, a national MRV system, and compliance obligations—will institutionalize the alignment between the NDC, LT-LEDS, and sectoral plans. The DCCE is designated as the supervisory body for ETS allocation and overall implementation.
The analytical tools developed for the LT-LEDS, including economy-wide scenario modeling and sectoral decarbonization pathways, continue to be used by DCCE and ONEP to monitor NDC progress and design new policies. This continuity ensures consistency between long-term targets and near-term actions. Importantly, Thailand's LT-LEDS goes beyond economy-wide declarations by providing sector-specific guidance. For example, it sets targets for 74% renewable electricity by 2050 and 69% EV penetration by 2035, identifies clinker substitution and CCS in industry, promotes methane reduction in rice cultivation and manure management in agriculture, and commits to expanding national green cover to 55% by 2037 under the Community Forest Act and T-VER. Such sectoral detail provides actionable signals to ministries and industries, improving the usability of the LT-LEDS compared to more general long-term strategies.
Thailand's climate governance is structured around several key political and administrative entities, each with distinct mandates and levels of authority. The integration of climate change considerations into national economic and social development plans began as early as 2007. This initial recognition led to the establishment of pivotal bodies such as the National Committee on Climate Change Policy (NCCC) and the Thailand Greenhouse Gas Management Organization

(TGO) in the same year. A more recent and significant development is the establishment of the DCCE within the Ministry of Natural Resources and Environment in August 2023.

At the center of Thailand's governance structure is the NCCC, a high-level political body chaired by the Prime Minister. Comprising key ministry officials and expert representatives, the NCCC sets national climate policy, oversees international negotiations, and monitors alignment of domestic actions with strategic objectives. To manage its wide scope, the NCCC supervises seven specialized subcommittees focusing on policy integration, data management, legal frameworks, and sector-specific mitigation.

The Thailand Greenhouse Gas Management Organization (TGO), established in 2007, plays a central role in GHG mitigation and carbon market development. As an autonomous public agency, TGO certifies carbon credits, promotes low-carbon technologies, and facilitates trading in both domestic and international markets. Its role signals Thailand's emphasis on economic and market-based tools for climate action.

The newly established Department of Climate Change and Environment (DCCE), created in August 2023 under MNRE, enhances Thailand's operational capacity. DCCE coordinates implementation of climate policies, manages national GHG databases, assesses risks, and monitors the Climate Change Master Plan. It also leads the development of the Climate Change Act and acts as the national operational focal point for climate change.

The Office of Natural Resources and Environmental Policy and Planning (ONEP) operate under the Ministry of Natural Resources and Environment (MNRE). Prior to the establishment of the DCCE, ONEP held central responsibilities in climate governance. Although some functions have transitioned to the DCCE, ONEP continues to play a key strategic and coordinating role, particularly in policy formulation, environmental planning, and oversight. It remains responsible for environmental impact assessments, managing the Environment Fund, and driving Sustainable Development Goals 12 and 13. While no longer the primary climate focal point or Green Climate Fund (GCF) authority, ONEP still engages in international coordination, supports access to climate finance, and collaborates with stakeholders, including international partners, to align national climate priorities with available resources.

Together, these institutions and legal instruments illustrate a deliberate shift toward legally binding, data-driven, and participatory governance. With clear institutional mandates, cross-sector integration, and growing emphasis on carbon pricing and accountability, Thailand is positioning itself to deliver on both its domestic climate goals and international commitments under the Paris Agreement.

INTERNATIONAL COOPERATION

Thailand has established ambitious climate goals, aiming to achieve carbon neutrality by 2050 and net-zero GHG emissions by 2065. These targets are supported by its updated NDC, which commits to reducing emissions by 30% unconditionally and up to 40% conditionally by 2030 compared to the business-as-usual scenario. To guide its climate actions, Thailand has developed a comprehensive policy framework that includes the draft Climate Change Act (which would enable carbon pricing), the LT-LEDS, and the NAP, which focuses on six priority sectors. Additionally, the Bio-Circular-Green (BCG) Economy Model plays a key role in promoting sustainable economic development aligned with environmental goals.

Despite these plans, Thailand continues to face significant challenges in implementation. External evaluations, such as those by the Climate Action Tracker, have rated Thailand's climate policy framework as "Critically Insufficient." This rating reflects major gaps in enforcement, institutional capacity, and access to adequate financing and technology. To overcome these barriers, Thailand actively seeks international cooperation to strengthen its climate planning, enhance policy execution, and improve access to the technical and financial resources needed to meet its targets.

Over the past decade, international cooperation has played a critical role in supporting Thailand's climate transition. Key partners include the World Bank Group, ADB, the Green Climate Fund (GCF), the European Union (EU), the Japan International Cooperation Agency (JICA), GIZ, UNDP, and the United States Agency for International Development (USAID). These organizations have provided a wide range of support, including technical assistance for carbon pricing, green infrastructure investment, climate-smart agriculture, water management, urban resilience planning, and SME-focused climate projects.

The nature of support has shifted from traditional financing to more targeted assistance focused on institutional development, policy design, and innovative green finance mechanisms. For example, international partners have assisted in developing Thailand's MRV (monitoring, reporting, and verification) frameworks, supported green taxonomy development to guide sustainable investment, and helped design emissions trading and carbon pricing tools. Knowledge exchange—through policy dialogues, training programs, and collaborative research—has further enabled Thailand to align domestic policies with global climate standards and enhance technical capabilities.

To build on this progress and strengthen the effectiveness of future cooperation, five key recommendations are emphasized. These include:

- scaling up and diversifying climate finance to attract broader investment in adaptation.
- prioritizing technology transfer and local innovation through support for domestic R&D and green workforce development.
- strengthening institutional and human capacities to enforce and implement climate policy.
- promoting integrated and participatory approaches across sectors and stakeholder groups; and
- enhancing MRV systems to ensure transparency, performance tracking, and adaptive management. By addressing these strategic areas, international cooperation can continue to play a catalytic role in helping Thailand translate its climate ambitions into tangible, long-term outcomes.

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