



► Policy Brief

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Green jobs and just transition policy readiness assessment in Thailand

Key points

- ▶ Thailand is shifting macroeconomic and development policy levers towards a greener economy to achieve sustainable development. To accelerate greening, Thailand has developed policies designed to enhance greening and environmental conservation across government, including through the Bio-Circular-Green (BCG) model.
 - ▶ *The green jobs and just transition policy readiness assessment* highlights uneven readiness across Thailand, with both viewed as emerging concepts, without widely established definitions or clear institutional mechanisms for developing green jobs.
 - ▶ However, without the development of its labour force through suitable and up-to-date job skills, greening becomes difficult to achieve.
 - ▶ Currently there is limited alignment between the green economy agenda and policies for employment. A just transition – achieving sustainability in ways that is “just” to the enterprises, workers and communities involved, so that no one is left behind – requires detailed and inclusive planning, and close alignment between green economy, energy, industrial and employment policies.
- Recommendations emerging from this assessment include:
- ▶ **Develop definitions and information guidance about green jobs, green skills and a just transition** – including creating green job definitions and guidelines on how to establish and assess green jobs in various contexts across the economy should be established and broadly shared. A clear strategy is also required for collecting, analysing, and disseminating data on green jobs and employment impacts of transition.
 - ▶ **Linking skills development with green jobs and just transition planning agenda** – Identifying and developing the appropriate range and volume of skilled individuals to support the energy transition will be a key component for a just transition. Skills development activities will need to be targeted towards those workers and communities currently in carbon intensive sectors to provide the means and access to new labour market opportunities.
 - ▶ **Activating private sector actors for promoting green jobs and just transition** – Activating the private sector in developing green jobs will require access to new knowledge, skills as well as incentives (including financial incentives) to spur innovation and to introduce cleaner production and resource efficient activities.

About the project

Thailand is transitioning its economy to be ecologically sound, sustainable and centred on the principles of a “sufficiency economy” philosophy. The green economy agenda is being developed at the highest policy level – the 20-year National Strategy (2018–2037) – and is reflected in Thailand’s national policy and planning documents. These plans also incorporate commitments to the Sustainable Development Goals (SDGs) and the Paris Agreement (through Thailand’s Nationally Defined Contributions).

Thailand joined the UN Partnership for Action on Green Economy (PAGE) programme¹ in 2020, with the National Economic and Social Development Council (NESDC) as the implementing partner. PAGE’s main objective is to enable countries to design economic policies and national development plans to achieve the SDGs, global sustainability agreements on decarbonization and biodiversity, and other environmental conventions.

The ILO’s activities focus on promoting green jobs and ensuring a just transition towards environmentally sustainable economies and societies. Green jobs are jobs that are good for people, good for the economy, and good for the environment. They are both a mechanism to achieve sustainable development, as well as an outcome, in that they can provide the double dividend of just and decent employment creation with reduced environmental impacts.

Developing a supportive policy ecosystem to enable future green jobs growth and to ensure a just transition is critical; yet in many policy areas and for many jurisdictions green jobs and a just transition are new concepts and require activities to build awareness and capacity before they can be fully developed.

The ILO as part of PAGE Thailand’s Green Recovery project activities undertook a Green Jobs Policy Readiness Assessment to develop a baseline perspective of the current green jobs and just transition policy frameworks in Thailand. The objectives of the assessment included:

- providing a snapshot of green jobs and just transition policy frameworks and activities in Thailand, including policy coverage and policy coherence;
- assessing “readiness” and highlighting areas of best practice and opportunities in supporting green jobs and a just transition; and

- examining a specific case study of a COVID-19 recovery policy – namely the Khok Nong Na agricultural model – to look at how COVID-19 recovery policies can and did impact green jobs.

Policy assessment is a critical activity because, as with other sustainability policy issues, the ability to deliver and implement policy encouraging green jobs and a just transition requires:

- policy coordination across previously unconnected and fragmented sectors and parts/levels of government;
- integration of ecological, social and economic concerns in policy; and
- reform of institutional settings and compositions to better support the development and implementation of activities to address greening and a just transition.



¹ The Partnership for Action on Green Economy (PAGE) was launched in 2013 as a response to the call at Rio+20 to support those countries wishing to embark on greener and more inclusive growth trajectories. PAGE brings together five UN agencies – [UN Environment Programme](#), [International Labour Organization](#), [UN Development Programme](#), [UN Industrial Development Organization](#), and [UN Institute for Training and Research](#) – whose mandates, expertise and networks combined can offer integrated and holistic support to countries on inclusive green economy, ensuring coherence and avoiding duplication.

Results and conclusions

Defining and measuring green jobs

The ILO defines green jobs as decent jobs in economic sectors and activities that contribute to the preservation and restoration of the environment in traditional sectors such as agriculture and manufacturing and new, emerging green sectors such as renewable energy and energy efficiency (see figure 1). Decent jobs refer to work that meets the ILO decent work criteria; that is, work that pays a fair income, guarantees a secure form of employment and safe working conditions, ensures equal opportunities and treatment for all, includes social protection for the workers and their families, offers prospects for personal development and encourages social integration, and workers are free to express their concerns and to organize.²

Figure 1. About green jobs



Source: ILO, "What Is a Green Job?", 13 April 2016.

Assessing decent aspects of green employment requires looking at the characteristics of green employment at three different levels – individual, enterprise and economy.

At the individual job level, one needs to assess whether the new employment is fairly remunerated and with all the relevant workplace benefits and rights, and whether workers have a safe working environment in which to undertake their work.

At the enterprise level, one needs to assess enterprise commitments and capacity to support decent working

conditions alongside environmental sustainability – including fair wages, safe working environments with health risks minimized and free from all forms of discrimination and violence and harassment. To ensure safe working conditions there is a need to include climate change risks in occupational safety and health (OSH) policies, and new occupations in renewable energy or energy efficiency must have their occupational risks and hazards mapped and mitigated. Other relevant commitments and actions include those aimed at addressing gender equality, providing career development and training, and supporting social dialogue processes for enterprise decision-making.

At the economy level, one needs to assess how employment generation and upgrading employment quality are linked to the green development agenda within the economy. The focus needs to not only be on employment creation but also employment quality, which can be improved by increasing formalization of employment, ensuring that regulatory and policy systems develop a supportive culture for rights at work, and ensuring that policy mechanisms provide for social protection and social dialogue processes.

The green economy policy agenda

National planning policies

Thailand is in the process of developing the 13th National Economic and Social Development Plan (2023–2027). The Plan provides overall development direction for the country and informs the activities of ministries and agencies (see figure 2). There are four concepts at the centre of the 13th Plan: (i) the sufficiency economy philosophy; (ii) resilience; (iii) leaving no one behind; and (iv) the Bio-Circular-Green (BCG) economic model. This national planning framework also sets out pathways for climate change adaptation and resilience and decarbonization.

The BCG model is a key mechanism to drive more sustainable production and consumption activity in Thailand. The BCG model is being implemented through four high-level strategies and 13 measures, and with close collaboration between key government agencies, industries, academia and communities.³ The BCG model focuses on four high priority industries: (i) food and agriculture; (ii) bioenergy and biomaterials; (iii) medical and wellness; and (iv) tourism and creative economy. Specific areas of focus for the model include building value creation

² ILO, *Decent Work Indicators: Guidelines for Producers and Users of Statistical and Legal Framework Indicators*, second edition, 2013.

³ Thailand, NSTDA, "Press Release on BCG Policy Broad Approves Strategic Plan and Policy Measures to Drive BCG Model", 12 July 2021.

with microbial technology and transitioning to a low-carbon and clean-tech economy.

The first Bio-Circular-Green Complex (public-private partnership) has been initiated under the cooperation of the Ministry of Industry; the Ministry of Environment, Natural Resources and Energy; the Thai Eastern Group; and the Chon Buri local administrative office. This project aims to create 8,000 jobs in three years and 100 billion baht per year in economic value, as well as contribute to grassroots development by promoting community-based renewable energy such as solar-powered water pumps and biogas production from waste.

Figure 2. National-level planning and 13th NESDP development status



Source: Thailand, NESDC, Public participation in the 13th NEDSP, 2021.

Environmental policies

The Ministry of Natural Resources and Environment (MONRE) has developed the Climate Change Master Plan (2015–2050) as a long-term national framework and mechanism for climate change mitigation and adaptation and sustainable low carbon growth by 2050. In addition to mitigation efforts, the first National Adaptation Plan was developed in 2018 to provide the framework for developing a climate resilient society with the focus on human settlements, natural resources and water management, agriculture, and food security.

The employment impacts of these environmental policies and plans are highlighted in several ways. The Office of Natural Resources and Environmental Policy and Planning (ONEP)’s Enhancement and Conservation of the National Environmental Quality Policy (2017–36) includes expected employment growth and demand growth for green skills. These are focused on activities in the environmental goods and services sectors.

Thailand’s Greenhouse Gas Management Organization (TGO) is an autonomous public organization under the MONRE. The TGO measures and communicates expected climate change impacts for Thailand.

The Thailand Carbon Neutral Network launched in July 2021, and with the signing of a memorandum of cooperation with the Federation of Thai Industries (FTI), it promotes collaboration between government organizations, the private sector, local businesses and the community in addressing climate change, as well as building the capacity of members able to participate in the carbon credit market.

Energy policy

The Royal Thai Government has developed policy guidelines for the energy sector to develop clean energy and achieve carbon neutrality by 2065–70.⁴ The Ministry of Energy has developed Energy 4.0 to enhance energy supply and grid resilience and to reduce greenhouse gas emissions. Thailand also has other energy policy mechanisms aimed at decarbonization, including the Renewable Energy Plans, the Alternative Energy Development Plan (AEDP, 2015) and the Energy Efficiency Plan (2015). Thailand aims to generate 33 per cent of the country’s total power production through renewable sources by 2037 under the 10-year AEDP. The plan seeks to generate 15,574 megawatts (MW) from solar power; 5,786 MW from biomass power; 2,989 MW from wind power; 3,000 MW from hydropower; and 900 MW from waste-sourced power by 2037.⁵

The Government is also developing local-scale renewable energy, especially via bio-waste, under the “Energy for All” policy. The Community Power Plants for Local Economy programme is focused on developing distributed renewable energy generation in local economies, mainly from agricultural waste.

Agriculture

Compared to the energy sector, greenhouse gas emissions from agriculture waste have remained small, but have

⁴ Thailand Environment Institute, “Opportunities for Thailand and a carbon free economy”, *TEI Blog*, 7 August 2021.

⁵ Miranda McLaren, “Governments across Southeast Asia Accelerate Renewable Energy Investment to Revive the Pandemic-Hit Economies”, *Power Technology*, 21 January 2021.

steadily increased from 2010 to 2016. Larger structural and demographic changes are underway in the agricultural sector. The percentage of employment in the sector has been declining since 2011.

The Ministry of Agriculture and Cooperatives (MOAC) has given priority to assisting agricultural viability at the farm level. The MOAC, along with other ministries, has prepared the 20-year Agriculture and Cooperatives Strategy (2017–36) as the framework for long-term agricultural development with the vision of secure farmers, a prosperous agriculture sector and sustainable agricultural resources.

The focus of the agricultural policy mix has been on enhanced productivity for farmers and farming communities through building new skills and using new equipment in farming.

Industry

The Ministry of Industry (MOI) is developing green industrial development policies. The aforementioned BCG model has been applied in the industrial sector, and the MOI expects that all industries in Thailand will transition. Policy focus is on supporting cleaner and resource efficient production processes, lean manufacturing, new sustainable product development (including new prototypes for digitally industrial agriculture – so-called “smart farms”), and enhanced skill development for greening across the sector through the industrial reformation centre (Reskill).

Green investment

The Ministry of Finance (MOF) has established the Sustainable Financing Framework to generate financing for sustainability commitments and ambitions targets related to climate change mitigation and adaptation. This includes green, social and sustainability bonds and loans as direct investment expenditures, as well as subsidies, fiscal measures and operational expenditures. The first green bond in Thailand was issued by TMB Thanachart Bank in June 2018 (US\$60 million). Thailand expects that investment in SDG 8-related projects will both reduce the environmental footprint and assist the transition towards a low-carbon economy while advancing employment and socioeconomic development. Under this framework, the MOF's Public Debt Management Office issued a 30 billion baht sustainability bond in September 2020 to finance green infrastructure and social impact projects supporting Thailand's recovery from the COVID-19 pandemic, such as

job creation through SMEs and local public infrastructure development with social and environmental benefits.

Green job opportunities in Thailand

The Office of the Permanent Secretary for the Ministry of Labour in Thailand defines green jobs as jobs in businesses that produce goods or services that benefit the environment or natural resources, including research and development, installation, and maintenance services; as well as jobs with environmentally friendly processes or that reduce the use of natural resources, or that engage in the dissemination of knowledge on the tools and methods to reduce environmental impacts. This definition includes green jobs' contribution to environmental sustainability but lacks components concerning decent work.

Green jobs in the agricultural sector

Thailand has strong green jobs opportunities in the agricultural sector. Currently, more than 30 per cent of employment is in the agricultural sector; however, labour productivity is lower than in other sectors. A shift towards small-scale plant-based production has been promoted to help alleviate poverty by guaranteeing small farmers fair incomes and creating new market opportunities. The increasing level of educational attainment among young Thai farmers is anticipated to spur growth in innovation and entrepreneurship among rural communities and enable them to transition away from livestock and mono-crop production towards a more sustainable form of agricultural production.

Organic farming and regenerative farming are also seen as opportunities for green job growth and socio-economic development. However, assessing both environmental and green jobs impacts of these activities is difficult, given the limited data availability (see case study below on the Khok Nong Na agricultural model).

Ecotourism and farm tourism are also viable options for increasing green jobs and farmer viability, by allowing farmers to diversify their sources of income. In Thailand, the Professional Qualification Institute is developing skills standards in key sectors identified as having high potential, and these include “affluent medical and wellness tourism” as well as agriculture and innovation in biotechnology and food.⁶

Green jobs in the renewable energy sector

Strong opportunities also exist in the energy sector. The renewable energy sector expects to be a major growth driver for employment and the Thai economy. According to

⁶ ILO, *Skills for a Greener Future: A Global View*, 2019, 103.

the Asia Business Council's analysis on green market potential in Asia, Thailand's biomass energy ranked third, using rice husk, straw, sugarcane bagasse, palm oil waste, and wood waste to generate energy.⁷

Thailand's vision of "100 per cent renewable energy by 2050" aims to direct employment generated by the renewable energy sector, which would create 172,164 jobs. This means an average job creation of more than 4,600 jobs per year. Modern biomass and solar would then employ the largest number of people with 77,964 and 76,964 jobs, respectively, followed by wind and biogas.⁸ Jobs in the renewable energy sector will need to be developed to include decent work standards and with a focus on job quality.

The Khok Nong Na Model

The Model Area Development Project for Quality-of-Life according to the New Theory Applied to the "Khok Nong Na Model" is a new agricultural concept based on local wisdom and the Sufficiency Economy Philosophy (SEP) initiated by His Majesty King Bhumibol Adulyadej. The key principle of the Khok Nong Na Model is for the utilization of land consisting of three components:

- i. "Khok" (mound) refers to mounds for cultivating three different types of plants that provide four different types of benefits.
- ii. "Nong" (marsh) refers to the excavation of swamps, canals or ditches.
- iii. "Na" (rice field) refers to a farm for cultivating organic rice, which includes soil rehabilitation management and sustainable organic farming.⁹

The Khok Nong Na Model serves as a source of food for the community or among farming groups, and also functions as a learning centre for exchanging farming experiences with other farmers in order to achieve the SDGs. The model divides land into four parts: 30 per cent for irrigation water storage; 30 per cent for growing rice; 30 per cent for growing a mixture of plants; and the remaining 10 per cent reserved for residential and livestock areas.

As part of the COVID-19 stimulus package, the Government approved a total budget of 240,632,200 baht to develop and expand the Khok Nong Na Model to some 575 districts across Thailand.

The ILO developed a case study on the stimulus support to the agricultural model in order to assess how sustainable agriculture could also contribute to green jobs. The case study shows that although the agricultural model provides a good opportunity for sustainable farming and green job creation, this is hampered by limited knowledge of the decent work agenda and challenges around farmers being able to derive adequate income from their activities. The case study triggered the development of onsite capacity-building for farmers and other stakeholders on the ILO's decent work standards in the agriculture sector and other areas of improvement for sustainable agriculture development and plans.



Implications and recommendations

Thailand has developed strategies, plans and measures in relation to the green economy through the NESDP, the BCG model, and the Climate Change Master Plan 2015–50. However, some implementation measures remain undeveloped or unclear; as do specific mechanisms for coordination to achieve policy coherence. By consequence, Thailand's green jobs and just transition policy readiness status is uneven.

⁷ Asia Business Council, "Addressing Asia's New Green Jobs Challenge", 2009.

⁸ Greenpeace, *Renewable Energy: Job Creation in Thailand*, 2018.

⁹ Phramaha Hansa Dhammahaso., Phrakrupalad Adisak Pimnon., Sakchai Sakabucha., Nadnapang Phophichit. 2022. "Concept of Khok Nong Na Model for Sustainable Development. Foundation of Globalization Fairness. Available at <https://so02.tci-thaijo.org/index.php/jam/article/view/254107>.

There is no widely held definition of green jobs or a just transition, nor are there guidelines on assessing employment impacts of greening at the national, sector and regional levels. Some individual sectoral policies are in place, but there is no coherence or linkages between these policies and macroeconomic greening ambitions.

Based on this assessment, the following recommendations are made for green employment policy and industry support to further develop the green jobs potential and just transition planning in the Thailand economy.

Recommendation 1 - Develop definitions and information guidance about green jobs, green skills and a just transition. Green jobs definitions and guidelines on how to establish and assess green jobs in various contexts across the economy should be established and broadly shared. A clear strategy is also required for collecting, analysing and disseminating data on green jobs and the employment impacts of transition. This will ensure policies and incentives can be developed from this shared understanding of green jobs and a just transition.

Recommendation 2 - Review and develop policies, regulations and laws to create an enabling environment for green jobs and a just transition. Building on labour market analysis and an economy-wide understanding of the employment impacts of greening, a suite of policies, incentives and other mechanisms will need to be developed to ensure green jobs are promoted and that just transition planning occurs. These policies and instruments can build from existing policy bases where applicable, but in some case new policies and instruments will need to be developed. New policy areas include those for green skills, new occupations associated with greening, and mitigation and job transition pathways for jobs that will phase out as part of decarbonization.

Recommendation 3 - Link skills development with the green jobs and just transition planning agenda. Identifying and developing the appropriate range and volume of skilled individuals to support the energy transition will be a key component for a just transition. Skills development activities will need to be targeted towards those workers and communities currently in carbon-intensive sectors in order to provide them the means for and access to new labour market opportunities. Further targeting of new green job opportunities towards under-represented labour force groups, such as women and young people, will extend the inclusivity of the energy transition.

Recommendation 4 - Activate private sector actors to promote green jobs and a just transition. Activating the private sector in developing green jobs will require access

to new knowledge and skills, as well as incentives (including financial incentives) to innovate and to introduce cleaner production and more resource efficient activities. Innovation will require new capabilities within enterprises and sectors, including new knowledge sources and well-functioning inter-firm networks to support diffusion of innovations and best practices across sectors and business types (including small businesses). Policy objectives aimed at private sector activation will need to be well embedded and developed in the policy mix, including measures for building and supporting business networks for green innovation diffusion.

Recommendation 5 - Individual and institutional capacity-building for just transition planning. This study highlights how different levels of awareness and understanding of a just transition among different actors in the economy is hampering effective, just and inclusive energy transition planning. To mobilize support and to ensure meaningful participation from workers and business owners, targeted awareness-raising and capacity-building is essential. In addition, capacity-building for policymakers is also critical, since just transition planning will require new sets of skills for each of these groups.

Recommendation 6 - Effective and inclusive social dialogue processes for a just transition. Just transition processes will trigger structural changes that affect not only jobs, but the wider economic system. Effective social dialogue processes are needed to navigate these changes. Dialogue processes will need to include tripartite partners, but also other relevant social partners, such as sectoral regulators, communities, academics, and other actors who can provide critical knowledge and knowledge translation activities to just transition planning processes.

Methodology

This project utilized a qualitative policy readiness assessment methodology – namely, Green Jobs and Just Transition Policy Readiness Assessment. These assessments map and analyse existing policy systems for green jobs and just transition planning. This form of policy readiness assessment is important, because a supportive policy ecosystem is critical in enabling future green jobs growth and ensuring a just transition; yet in many policy areas and jurisdictions, green jobs and a just transition are new concepts and require activities to build awareness and capacity before they can be fully developed and implemented.

Therefore, assessing the existing capacity of policy and associated institutions (governments and other constituents and stakeholders) to undertake greening in labour markets and to plan for a just transition is a necessary component in building capacity for green jobs. The policy readiness assessment can take a specific sector focus and/or a geographic focus to allow for analysis of regional and local policies and how these interact with the national level policy framework.

The methodology begins with analysis of the existing policy context and narrative of its development, followed by policy stakeholder mapping and then a series of key informant interviews and focus group discussions specifically focused on the policy ecosystem for green jobs and just transition. This also includes identifying gaps and forthcoming policy measures, as well as analysis of the coordination and coherence of this policy ecosystem. This assessment develops a baseline perspective of the current green jobs and just transition policy framework, and can inform other assessment activities, interventions and capacity-building.

This study was undertaken in 2021–22 and included a range of interviews and focus groups as well as a tripartite validation workshop in November 2022.

Other useful resources

- ASEAN and ILO. 2021. *Regional Study of Green Jobs Policy Readiness in ASEAN: Final Report*.
- ILO. 2015. *Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All*.
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