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Preparing for the future of work: National policy responses in ASEAN +6

ANNEX 3

Labour markets and climate change

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Australia

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

Australia has various strategies to deal with environmental changes. In December 2015, the Australian Government released the **National Climate Resilience and Adaptation Strategy**, which describes how the country is managing the risks of a variable and changing climate.¹ It identifies a set of principles to guide effective adaptation practice and resilience building and outlines the Government's vision for a climate-resilient future. Proposing a dual approach, the Strategy includes measures to both mitigate and adapt to climate change.

The **Biodiversity Conservation Strategy 2010–2030**, released in 2010, is the guiding framework to conserve Australia's national biodiversity to 2030.² In November 2016, the Government agreed to engage in a revision of the strategy, which resulted in the **Strategy for Nature 2018–2030: Australia's Biodiversity Conservation Strategy and Action Inventory**. The draft strategy was opened for public comments between December 2017 and March 2018.³ Outcomes of the public consultation on the draft are currently being considered by a working group to inform its finalization.

II. What are the direct or indirect links of these strategies or policies to the labour market?

The National Climate Resilience and Adaptation Strategy notes the potential of climate change policies to "create jobs, and boost innovation and competitiveness". It also recognizes the adverse impact that climate change can have on jobs, by relating the reduction of greenhouse

emissions to the protection "of our economy and jobs". The Strategy also makes references to skills policies and describes the importance of skills related to climate change adaptation in order to manage climate risks and "find emerging opportunities". In particular, the Strategy mentions the "Learning to Adapt" professional development programme organized by the Environment Institute of Australia and New Zealand. The training programme aims to build skills for climate change adaptation projects.

References to labour-market-related issues in the draft Strategy for Nature 2018–2030 are limited. Only under Goal 1 is an employment link drawn in the aim "to increase Australians' understanding and awareness of the value of nature for [...] helping to sustain jobs and [...] creating opportunities for the future". An indirect link to the labour market can be drawn from Objective 8 under Goal 2, which seeks to foster innovative practices in domains such as agriculture and fishing to ensure sustainability of resources.

III. What are the roles of social partners and the private sector in the country's strategies or policies that relate to environmental changes?

Trade unions are not explicitly referenced in Australia's environment plans and strategies. The National Climate Resilience and Adaptation Strategy does, however, mention the role of businesses, which are seen as best placed to manage climate risks associated with commercial assets.

Likewise, the current draft of the Strategy for Nature 2018–2030 refers multiple times to businesses and their role as active stewards for nature. Businesses are encouraged to report their performance against environmental measures or use environmental accounts to more clearly demonstrate the value of nature. The draft Strategy also sees partnerships between enterprises and other stakeholders as a way to build capacity to care for and manage nature.

1 Australian Government: *National Climate Resilience and Adaptation Strategy*, 2015.

2 Department of the Environment and Energy, Australian Government: *Australia's Biodiversity Conservation Strategy 2010–2030*, 2010.

3 Australian Government: *Australia's Strategy for Nature (Draft) 2018–2030*, 2017.



Brunei Darussalam

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

The Energy Department's **Energy White Paper** (March 2013) outlines the country's plans to expand into renewable energy while also upgrading and expanding its existing electricity-generating facilities.⁴ The document recognizes the importance of green growth, a part of which is linked to creating green jobs and generating new sources of economic growth that can help the country to meet its energy efficiency goals. The push for the greening of industries is seen as one of the country's pathways to future industrial development and as a means to keep economic growth on track.

Currently renewable energies account for a nominal share of Brunei Darussalam's power generation.⁵ The White Paper calls for an increase of that contribution to 10 per cent by 2035. Moreover, it aims to reduce total primary energy consumption by 63 per cent by 2035 (from 2009 levels) and to achieve 20 megawatts from solar energy, needed to power homes in the Temburong Smart City by 2019.⁶

II. What are the direct or indirect links of these strategies or policies to the labour market?

According to the Energy White Paper, the "transition to green growth and job creation can go hand-in-hand. Green jobs can take place in energy sector, agricultural, manufacturing, research and development, administrative, and

service activities that contribute substantially to preserving or restoring environmental quality. This includes jobs that help to protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high-efficiency strategies; de-carbonize the economy; and minimize or altogether avoid generation of all forms of waste and pollution."

The strategy aims to maximize the benefits of diversification in the energy industry in part by "secur(ing) high participation of local workforce". Specifically, the employment target is 30,000 jobs by 2017 and 50,000 jobs by 2035, with the target for total Bruneians employed in the energy sector set at 20,000 by 2017 and 40,000 by 2035. At the same time, the plan expects to see at least 30 local companies venture into overseas operations by 2035.

To support the development of local firms, the Energy Department works with the Ministry of Finance on mechanisms for financial support to local companies, including tax incentives, while also offering entrepreneurship training, incubator support, global networking and mentoring. To produce the skilled workforce that will be needed for the energy sector, an Energy Industry Competency Framework was adopted in 2013 as joint collaboration among the Energy Department of the Prime Minister's Office, the Ministry of Education and the energy industry. The objectives of the Energy Industry Competency Framework are to: (i) define the competencies required to perform jobs and roles in the workplace (i.e. the energy industry); (ii) create alignment between training providers and industry requirements; and (iii) increase employability by upscaling the skills required by the energy industry. Other activities to attract workers include the Energy Department sponsored job fairs and "career roadshows". Finally, the plan discusses the possibility to organize "allied" labour pools, meaning a way of tapping into labour in industries considered to have complementary functional capabilities – e.g. seafarers, construction, IT, mechanics – and reskilling as workers in the expanded energy sector. As a word of caution, however, the plan states that this programme should not compromise the needs of other industries.

4 Energy Department, Prime Minister's Office of Brunei Darussalam: *Energy White Paper*, 2013.

5 A. Gnanasagaran: "Brunei's shift towards renewables", in *The ASEAN Post*, 6 May 2018.

6 The Smart City project is a collaboration with the Economic Research Institute for ASEAN and East Asia.

The White Paper lists “growing Bruneian human capital” as an enabler of the plan’s implementation. It thus iterates the skills development vision of the country’s long-term economic development plan **Wawasan Brunei 2035**, but with greater emphasis on scaling up vocational education facilities to ensure the needed supply of labour. More specifically, the white paper also offers suggestions to: (i) establish regulatory reforms and incentive schemes to drive workplace training, for example through a National Energy Graduate Apprenticeship Scheme; (ii) develop a formal network of career counselling; (iii) increase the number and scope of private registered training organizations; (iv) develop standards and programmes to increase the quality of education and training; and (v) create industry-education mobilization and training schemes.

III. What are the roles of social partners and the private sector in the country’s strategies or policies that relate to environmental changes?

Information about the role of social partners in the formulation or implementation process of policies or strategies is lacking.



Cambodia

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

Cambodia has a number of policy documents that focus directly on the adaptation to and mitigation of climate change. The **Cambodia Climate Change Strategic Plan 2014–2023**, the **National Policy on Green Growth** and the **National Strategic Plan on Green Growth 2013–2030** provide the overall policy framework for actions on climate change. The National Council on Green Growth was responsible for the formulation of the policy and plans, which link closely to Cambodia’s national development priorities as illustrated by the **Rectangular Strategy for Growth, Employment, Equity and Efficiency: Building the foundation toward realizing the Cambodia vision, Phase IV (RSP4)**.⁷ The RSP4 emphasizes “ensuring environmental sustainability and pre-emptive response to climate change” and “sustainable management of natural resource and culture” as important means to achieving inclusive and sustainable development. The **National Strategic Development Plan 2014–2018** similarly gave due importance to environmental protection and conservation and climate change. The updated **National Strategic Development Plan 2019–2023** is expected to continue upholding environmentally sustainable consumption and production and green growth as an integral part of Cambodia’s overall economic restructuring ambitions.

II. What are the direct or indirect links of these strategies or policies to the labour market?

With a view to sheltering the agricultural sector – which is among the largest employers in Cambodia as well as one of the sectors most

⁷ Government of Cambodia: “Rectangular Strategy” for Growth, Employment, Equity, and Efficiency: Building the foundation towards realizing the Cambodia Vision 2050 Phase IV of the Royal Government of Cambodia of the Sixth Legislature of the National Assembly, 2018.

vulnerable to the adverse impacts of climate change – the Cambodia Climate Change Strategic Plan prioritizes the promotion of climate resilience in this sector. Agricultural diversification, in terms of adopting crop varieties better suited to the changing climate, increasing productivity, and watershed and ecosystem management have been identified as measures to enable adaptation to the impacts of climate change. The document also highlights the need to promote the use of appropriate technologies among vulnerable farmers for livestock and crop production. Under the strategic objective to “promote adaptive social protection and participatory approaches in reducing loss and damage due to climate change”, the Plan discusses climate-risk insurance and access to microfinancing for local communities for climate change responses.

In the energy sector, the Cambodia Climate Change Strategic Plan stresses the need to promote renewable energy sources and improve energy efficiency, including through technology transfers, facilitating the diffusion of such technologies through guidelines, technical assistance and establishment of partnerships, employing financial and fiscal incentives and mobilizing public-private partnerships. More generally, building climate-resilient infrastructure is prioritized, offering potential gains in job creation.

The National Policy on Green Growth also affirms the Government’s commitment to mainstreaming green growth concepts at all levels and shifting to a new development paradigm that promotes green growth to reduce the adverse impacts of development activities on the environment and society. To this end, it lists a number of priority areas along thematic lines. For example, it seeks to support technology transfers and private sector investments in greenhouse gas emission and other pollution reduction technologies, energy efficiency-related technologies, and clean development technologies. One way in which it seeks to influence firms’ behaviour and encourage them to move towards green production is through recognition of companies’ efforts towards employing environmentally sustainable production processes through the issuance of green certificates, flags and conferring awards. The Policy also seeks to mainstream green growth into the education system while also organizing training courses on green growth and preparing and implementing programmes to foster skills development that can contribute to driving green growth.

The National Strategic Plan on Green Growth builds on the foundations laid by the National Policy on Green Growth. The Plan seeks to orient the Cambodian economy towards a green transition focusing on efficient use of natural resources, environmental sustainability, green jobs, green technology – including through the use of incentive mechanisms such as green tax, green finance, green credit and microcredit – as well as recognizing contributions towards environmental preservation through sustainable production. Green private investments are sought economy-wide, including in agriculture, industry, trade, infrastructure and transport, tourism and energy and are viewed as an important source of job creation and key to the overall transition towards a greener economy. The Plan also seeks to integrate green growth principles into both formal as well as “non-systematic education” with a view to raising awareness on the green transition. It outlines the Government’s aim to organize training courses on green technologies and places importance on social protection mechanisms in the adaptation to climate change and building resilience against its impacts. Green economic growth and social protection systems are anticipated to improve the well-being of vulnerable and/or disadvantaged groups such as people with disabilities, indigenous people, farmers, women, children, youth and the elderly.

III. What are the roles of social partners and the private sector in the climate change strategies?

The National Strategic Plan on Green Growth affirms that the successful preparation and implementation of the plan will require active involvement of the public and private sectors, civil society and the general public, although no specific role is allotted to workers’ and employers’ groups. The private sector is expected to respond to the incentives created by the Government and make green investments across the various sectors of the economy. Educational institutions are anticipated to play an important role in mainstreaming green growth principles into the educational curriculum, including in non-formal educational domains as well as in promoting research and technological developments to aid the country’s transition towards a green economy.



China

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

China has multiple planning documents that link to the issue of climate change and promoting the transition to a low-carbon economy, including the **Made in China 2025** plan issued in 2015. This plan emphasizes advancing research efforts for energy saving and green technology, scaling up the recycling industry, investing in green industrial parks and encouraging greening of existing enterprises.

In July 2018, the State Council issued the **Three-year Action Plan for Winning the Blue Sky Defense War 2018–2020**, which is dedicated to easing air pollution and climate change.⁸ While strongly encouraging the “death” of high-polluting heavy industrial enterprises, a reduction in coal consumption, enforcement of stringent pollution controls and geographical distribution (“scattering”) of industries, the Action Plan also outlines an expansion in the scale of green industries, the promotion of energy-efficient technologies and a green transportation system.

In January 2017, the National Energy Administration released the **13th Five-Year Plan for Renewable Energy Development**, which set the goal for achievement of full conversion to non-fossil energy by 2020.⁹ The investment in renewable energy could total as much as 2.5 trillion China yuan renminbi (CNY), equivalent to US\$360 billion, and could contribute to at least 13 million jobs, according to the planning document. Other relevant documents include the **Master Plan for the Reform of Ecological**

Civilization System (2015) and the **Plan to Strengthen Ecological Environment Protection and Improve Pollution Prevention and Control (2018)**.

II. What are the direct or indirect links of these strategies or policies to the labour market?

The new policing of domestic pollution since 2013 has significantly increased factory inspections and led to temporary shutdowns impacting production and jobs.¹⁰ However, the expectation expressed by the Government is that the strong push for development of renewable energy sources will more than offset the jobs lost in fossil fuels or polluting industries.

Where layoffs do occur, the government is likely to fall back on existing mechanisms to support re-activation. The Five-year Plan for Human Resources and Social Security Development 2016–2020 discusses the role of unemployment insurance and calls for improvements in active employment policy, including improved public employment services. At the same time, it calls for promoting policy support for flexible employment and new forms of employment. Without providing details, the document calls for “strengthen[ing] the monitoring of large-scale unemployment in some regions and industries and establish[ing] a response plan and working mechanism” and also for “implement[ing] the re-employment assistance action, increase[ing] the re-employment support, and do[ing] a good job in resolving the resettlement work in areas of excess capacity”.

III. What are the roles of social partners and the private sector in the climate change strategies?

Information about the role of social partners in the formulation or implementation process of policies or strategies is lacking.

8 State Council of the People’s Republic of China: *Three-year Action Plan to Win the Blue Sky Defense War*, 2018.

9 National Energy Administration, Government of China: *13th Five-year Plan for Renewable Energy Development*, 2017.

10 One source finds that 40 per cent of factories’ production was impacted in the pollution policing effort, with more than 80,000 personal charges of criminal offences filed for breaching emissions targets. See T. Nace: “China shuts down tens of thousands of factories in widespread pollution crackdown”, in *Forbes*, 24 October 2017.



India

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

India's **National Action Plan on Climate Change (NAPCC) 2008**¹¹ is a national level climate change policy that is supplemented at the state level by different state action plans on climate change as well as by former policies like the **National Environment Policy 2006**.¹² The NAPCC lays out measures that can harmonize national development with actions aimed at both adaptation to and mitigation of climate change. The document highlights eight "national missions" for implementation that include specific initiatives for solar energy, enhanced energy efficiency, sustainable habitat, water, sustainable agriculture, sustaining the Himalayan ecosystem, green India and knowledge for climate change.

A national level body, the **Prime Minister's Council on Climate Change**, was set up in 2007 and reconstituted in 2014 to coordinate national action plans on climate change assessment, adaptation and mitigation; advise the Government on policy measures; and facilitate inter-ministerial coordination.¹³ In 2017, the NITI Aayog (National Institution for Transforming India) published the **Strategy on Resource Efficiency** with the objective of recommending "a broad strategy for enhancing resource-use efficiency in the Indian economy and industry" and highlighting the various economic, social, and environmental benefits that could be accrued from better resource efficiency.¹⁴

The **Twelfth Five-year Plan 2012–2017** had incorporated the issue of climate change adaptation and mitigation as well as low-carbon growth strategies into national development planning.¹⁵ The successor to this plan – the NITI Aayog's **Three-year Action Agenda 2017–18 to 2019–20** – addresses sustainability concerns specifically under chapters on environment and forests and sustainable management of water resources, without references to the NAPCC.¹⁶ There are also multiple references to environmental concerns in the ten dimensions of **Vision 2030** such as increasing the share of renewables in the country's energy mix, curbing pollution and providing a "clean and wholesome environment".¹⁷ However, there are no direct references to climate change.

II. What are the direct or indirect links of these strategies or policies to the labour market?

The approach taken by the NAPCC is to lay down twin-pronged policy measures that address both development and growth-related concerns while also advancing climate change adaptation and mitigation. The document highlights the various climate change adaptation and mitigation programmes operational in the country. On the adaptation front, the document points to programmes aimed at crop improvement, drought proofing and risk financing, with the broader aim to support population groups that are most vulnerable to climate change and protect their livelihoods.

The NAPCC also highlights some greenhouse gas mitigation-related provisions of the Integrated Energy Policy such as the promotion of energy efficiency, emphasis on mass transit and renewable energy sources, expeditious development of nuclear and hydropower as sources of clean energy, and promoting research and development in clean energy tech, which could have important labour market implications in terms of job creation and facilitating the

11 Prime Minister's Council on Climate Change, Government of India: *National Action Plan on Climate Change*, 2008.

12 Ministry of Environment and Forests, Government of India: *National Environment Policy*, 2006.

13 Ministry of Environment, Forests and Climate Change, Government of India: "India's progress in combating climate change", Briefing paper for UNFCCC COP 20 Lima, 2014.

14 National Institution for Transforming India (NITI Aayog) and EU Delegation to India: *Strategy on Resource Efficiency*, 2017.

15 Planning Commission, Government of India: *Twelfth Five Year Plan 2012–2017*, 2013.

16 National Institution for Transforming India (NITI Aayog), Government of India: *India Three-year Action Agenda 2017–18 to 2019–20*, 2017.

17 "Interim Budget 2019–2020", Speech of Piyush Goyal, Minister of Finance, 1 February 2019.

transition towards a low-carbon economy. The national solar mission within the NAPCC seeks to significantly boost solar energy generation in the country. The document states that “the ultimate objective of the Mission would be to develop solar industry in India that is capable of delivering solar energy competitively against fossil options [...] within the next 20–25 years”. Broadly, the NAPCC also underlines the important local employment creation potential of other renewable energy sources in addition to their contribution in reducing greenhouse gas emissions.

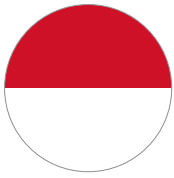
There are labour market implications also on other “national missions” of the NAPCC. That on enhanced energy efficiency, for example, calls for tax incentives related to the promotion of energy efficiency, which can help firms to adapt to energy efficient production without having to accommodate costs through a reduction in employment. The national mission on sustainable habitat promotes energy efficiency in the residential and commercial sector, management of municipal solid waste and promotion of urban public transport, all of which could be important sources for generating new green jobs. The national mission on agriculture underlines a number of policy priorities that have a direct impact on the livelihoods of a large portion of the population. The national mission on strategic knowledge for climate change underscores that meeting the objectives of climate change will require strengthening human resources. Changes in school curricula, introduction of new programmes at universities and training of professionals in relevant fields are highlighted as potential ways to do so. Also indicated is the need to assess the skills requirements and take the necessary measures to fill skills gaps to improve the quality and quantity of human resources.

The **Strategy on Resource Efficiency** (2017) highlights the important positive implications that better resource efficiency could have on the economy, society and the environment in general and on employment in particular.¹⁸ It points out that better resource efficiency and sustainable resource management strategies can lead to the creation of new industries, e.g. in recycling, which can create new employment opportunities. At the same time, it notes the need for a government push towards recycling to yield better outcomes for the informal sector – which is often characterized by poor and unsafe working conditions – where most of the recycling-related work is done. Similarly, innovation in design and manufacturing related to the circular economy are underscored as having the potential to create highly skilled jobs. Furthermore, green product certification, eco-labelling, and green manufacturing are also expected to give rise to employment opportunities.

III. What are the roles of social partners and the private sector in the climate change strategies?

The NAPCC stresses the importance of adopting a multi-stakeholder approach towards programmes aimed at climate change mitigation and adaptation. For instance, “effecting implementation of programmes through unique linkages, including with civil society and local government institutions and through public-private-partnership” is one of the NAPCC’s guiding principles. Similar guidelines are also found in the Strategy on Resource Efficiency, which calls for cross-industry collaboration and the involvement of diverse stakeholders such as public, private, academic and non-profit institutions in the promotion of resource efficiency and sustainable resource management strategies. Regardless, specific information about the role of social partners in the formulation or implementation process of policies or strategies is lacking.

18 National Institution for Transforming India (NITI Aayog) and EU Delegation to India: *Strategy on Resource Efficiency*, 2017.



Indonesia

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

With a vision to protect Indonesia from shocks arising from changing climatic conditions and environmental degradation, the Ministry of Finance in 2014 formulated the **Green Planning and Budgeting Strategy for Indonesia's Sustainable Development, (GPB) 2015–2020**.¹⁹ The strategy document identifies six policy areas, namely: forestry; peat-land and marine resources; agriculture; energy and industry; transport, urban and regional development, and proposes 21 priority programmes under the aforementioned policy areas in order to secure “green economy benefits” for Indonesia. Additionally, the document “**Delivering green growth for a prosperous Indonesia – A roadmap for policy, planning, and investment**”, released in 2015, serves as a guide to greening the economy and overcoming challenges related to achieving green growth, employment creation and poverty reduction.²⁰

Broader national planning documents such as the **National Long Term Development Plan 2005–2025** and the **Master Plan of National Industry Development 2015–2035** also emphasize the need for a transition towards a green economy and the need to capitalize on the opportunities that is expected to come from global demand for sustainable goods and services. Similarly, one priority of the **Making Indonesia 4.0** initiative is the need to incorporate sustainability standards into production and consumption. The climate specific strategies and the broader national development strategies together contribute to mainstreaming

the issue of climate change into the national policy framework, including in development and budgeting practice.

II. What are the direct or indirect links of these strategies or policies to the labour market?

The GPB strategy posits that if no climate-related action is taken and business-as-usual persists, Indonesia is likely to witness a sharp decline in economic growth levels over the years, bringing with it an associated adverse impact on living standards. Consequently, the strategy strives to ensure that public policies and programmes contribute to achieving a more sustainable future by requiring line ministries to incorporate “green economy” objectives in the preparation of new initiatives, programmes and policies.

Various policy instruments and programmes identified under the selected priority areas have indirect links to labour market outcomes. For example, under agriculture, the GPB seeks to promote rural finance and insurance systems for farmers, a mechanism that can be instrumental in helping farming communities adapt to changing climatic conditions. Similarly, it seeks to employ financial incentives such as reduced import duties and tax incentives for investments made in the renewable energy sector.

The green growth roadmap identifies five key drivers of green growth, each of which can lead to job creation: (i) the efficient use and management of natural resources and the ecosystem that are crucial for sustained economic growth and a rise in living standards; (ii) investing in green infrastructure; (iii) leveraging private sector investments and innovation in new technologies to foster productivity; (iv) developing human capital and creating a knowledge-based economy that is less reliant on resource extraction; and (v) taking into account social and environmental goals while driving projects and programmes aimed at spurring growth. Neither this document nor other planning documents address potentially negative consequences such as job disruption in heavy polluting industries.

19 Centre for Climate Change Financing and Multilateral Policy Fiscal Policy Agency, Ministry of Finance, Government of Indonesia: *Green Planning and Budgeting Strategy for Indonesia's Sustainable Development, 2015–2020*, 2014.

20 Global Green Growth Institute, Government of Indonesia: *Delivering green growth for a prosperous Indonesia: A roadmap for policy, planning and investment* (Jakarta, 2015).

III. What are the roles of social partners and the private sector in the climate change strategies?

National strategies aimed at mitigation of and adaptation to climate change such as the GBP and the green growth roadmap recognize the role of the private sector in supporting the transition to a greener economy, while references to workers' and employers' are absent.

In governing the transition, the GBP seeks to gradually move from policies that involve direct government expenditures to instruments such as financial incentives and regulations such as environmental standards. In other words, it seeks to initiate the drive towards a green economy initially with outlays from the Government while gradually moving towards a regime characterized by increased proactivity from the private sector.



Japan

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

Japan has multiple planning documents that link to the issue of climate change and promoting the transition to a low-carbon economy. Among these are the **Strategic Energy Plan 2014**, the **Basic Hydrogen Strategy 2017**, the **Fifth Basic Environment Plan 2018**, the **Long-term Low Carbon Vision 2017** and the **Promotion Strategy for Environmental Research and Environmental Technology Development 2015**.²¹ In June 2019, the Government set a long-term target to reduce emissions by 80 per cent by 2050.²² Currently, Japan is also considering adoption of a long-term strategy on climate change with a commitment to achieve net zero emissions "as early as possible in the second half of this century".²³

Perhaps the most relevant plan for this study is the Fifth Basic Environment Plan, adopted in April 2018. The Plan sets six priority strategies: (i) formulating a green economic system for realizing sustainable production and consumption; (ii) improving the value of national land as stock; (iii) sustainable community development using local resources; (iv) realization of a healthy and prosperous life; (v) developing and disseminating technologies supporting sustainability; and (vi) demonstrating Japan's leadership through international contributions and strategic partnerships.

21 Ministry of Economic, Trade and Industry, Government of Japan: *Strategic Energy Plan 2014*, 2014; Ministerial Council on Renewable Energy, Hydrogen and Related Issues, Government of Japan: *Basic Hydrogen Strategy*, 2017; Ministry of the Environment, Government of Japan: *The Basic Environment Plan*, 2018; Ministry of the Environment, Government of Japan: *Long-term Low Carbon Vision*, 2017; Ministry of the Environment, Government of Japan: *Promotion Strategy for Environmental Research and Technology Development*, 2015.

22 Y. Obayashi: "Japan adopts long-term emissions strategy under Paris Agreement", in *Reuters*, 11 June 2019.

23 D. Hurst: "Does Japan's new climate change strategy go far enough", in *The Diplomat*, 16 April 2019.

II. What are the direct or indirect links of these strategies or policies to the labour market?

Among the six strategic areas of the Fifth Basic Environment Plan, labour market issues are linked to the development of a green economy (noting that promotion of the sharing economy is encouraged here, as is hydrogen production, where jobs could potentially be created), promoting sustainable community development (developing jobs in conservation and ecotourism), and the promotion of technologies for supporting sustainability. This latter objective links to the objective of Japan's Society 5.0 vision, which discusses use of technology, including artificial intelligence, for social goods among which is environmental sustainability. The Fifth Science and Technology Basic Plan establishes the aim for Japan to be a world leader in technologies for creating renewable energy and storing energy. The human resource needs and planning for skilling the country's technological development, discussed in Annex I, are also therefore relevant to the topic of addressing climate change.

There is one additional labour market linkage hinted at in the Fifth Basic Environment Plan, which is under the priority set for realization of a healthy life. This strategy links the workplace reform that encourages teleworking as a mechanism to reduce carbon dioxide emissions.

III. What are the roles of social partners and the private sector in the climate change strategies?

Information about the role of social partners in the formulation or implementation process of policies or strategies is lacking.



Korea, Republic of

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

The **Framework Act on Low Carbon Green Growth (FALCGG) 2010** is one of the key legislative documents creating the foundation for pursuing low-carbon green growth in the Republic of Korea. As a follow-up, the **National Strategy for Green Growth 2009–2050**, the **Five-year Plan on Green Growth 2009–2013** and the **Second Five-year Plan on Green Growth 2014–2018** were drawn up.²⁴ While the long-term strategy (2009–2050) provides a vision and a roadmap for the transition to a greener economy with reduced greenhouse gas and carbon emissions, the five-year plans are designed as action plans to be implemented by government agencies at various levels.

Furthermore, a **Green Growth Committee** was convened under the Prime Minister's office in 2009 and continues to deliberate on and coordinate the Government's green growth policies.²⁵ In 2016, the Republic of Korea adopted the first **Basic Plan for Response to Climate Change** and the **Roadmap to Achieve National Greenhouse Gas Reduction Goals**.²⁶ Broadly, the Basic Plan for Response to Climate Change seeks to give the climate change response policy a new paradigm that is based on market mechanisms and technology while promoting the role of the private sector and creating the potential for new job opportunities. The Roadmap, more specifically, lays down quantitative targets for greenhouse gas reduction for various industries

24 UNESCAP and Korea International Cooperation Agency: *Low carbon green growth roadmap for Asia and the Pacific Case Study* (Bangkok, 2012).

25 Green Growth Committee web portal. Available at: <http://www.greengrowth.go.kr/>.

26 Ministry of Foreign Affairs, Government of the Republic of Korea: "Korea's efforts to address climate change". Available at: http://www.mofa.go.kr/eng/wpge/m_5655/contents.do.

such as construction, energy and transport in order to achieve the overall greenhouse gas reduction target set for 2030.

II. What are the direct or indirect links of these strategies or policies to the labour market?

Since the Third Five-year Plan on Green Growth has yet to be released, the Government's preparation vis-à-vis green transition and low-carbon growth will be discussed based on the FALCGG and the National Strategy for Green Growth 2009–2050.

The FALCGG provides an overarching framework for national policies towards low-carbon green growth and places job creation at the centre of the transition. This is most clearly articulated in the definition of green growth provided in the document. The concept of green growth is defined as “growth achieved by saving and using energy and resources efficiently to reduce climate change and damage to the environment, securing new growth engines through research and development of green technology, creating new job opportunities, and achieving harmony between the economy and environment”. The Act calls on the Government to adopt green technologies and industries as key drivers of economic growth and job creation. Furthermore, it also directs the Government to support the transition through measures that include developing opportunities for workers to learn new technologies and skills and providing technical and financial support to spur green technologies and industries.

The National Strategy for Green Growth has created a roadmap with three clear objectives and ten policy directions.²⁷ The three objectives are: (i) mitigation of climate change and improvement of energy independence; (ii) creation of new growth engines; and (iii) improvement in the quality of life and enhancement of international standing. The ten policy directions for green growth are: efficient greenhouse gas reduction; strengthening energy independence; strengthening adaptive capacity for climate change; fostering green technology development and green growth engine; greening existing industries and

fostering new green industries; improvement of industrial structure; promoting green economic infrastructure; better traffic management; green revolution in lifestyle; and becoming a model green growth country.

Some policy measures defined within these ten policy directions have important links to the labour market. For example, under the policy of strengthening adaptive capacity for climate change, the Government seeks to produce manuals and quick-response guides for vulnerable populations such as farmers and the elderly to enable them to better respond to the impacts of climate change. It also seeks to conduct various education and public relations campaigns to raise awareness on these issues. In the agriculture and fishery sectors, the Government aims to promote the development of high-climate and disaster-resilient varieties and species. Natural disaster insurance, linked to climate change events, has also found mention. Some of the other policy directions such as fostering new green industries and promoting green economic infrastructure have direct links to the potential for the creation of green jobs in the economy.

The Basic Plan for Response to Climate Change envisions moving towards a low-carbon society through effective climate change responses, among which are the active creation of “green jobs” and supporting industrial innovation and environmentally friendly investments. The strategy also aims to safeguard livelihoods against climate-induced shocks.

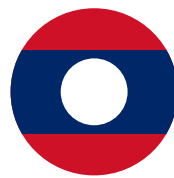
III. What are the roles of social partners and the private sector in the climate change strategies?

The roles of various social partners with regards to the promotion of low-carbon green growth have been identified within the FALCGG. For example, enterprises are expected to incorporate green management, reduce greenhouse gas and other pollutants' emissions, expand investments and employment in research and development on green technologies and green industries, and conform to regulations and policies enforced by various levels of government on reducing carbon emissions and fostering a green economy.

27 Green Growth Korea: “National green growth strategy and five-year plan milestones”. Available at: http://17greengrowth.pa.go.kr/?page_id=42450.

Similarly, the FALCGG identifies the roles of citizens, calling on individuals to practice “green life”, be responsive to the practice of green management of enterprises by increasing consumption and use of green products and contributing to the overall promotion of the green economy and society.

The FALCGG provides the legal basis for the creation of a Presidential Committee on Green Growth, which is concerned with deliberating on “the State’s major policies and plans related to low carbon discharge and green growth matters concerning the performance of such policies and plans”. The Committee is to be comprised, among others, of “persons commissioned by the President from among those who have abundant knowledge and experience in low carbon discharge and green growth, such as climate change, energy and resources, green technology, green industries, or sustainable development”. No specific mention is made regarding the roles of workers’ and employers’ groups.



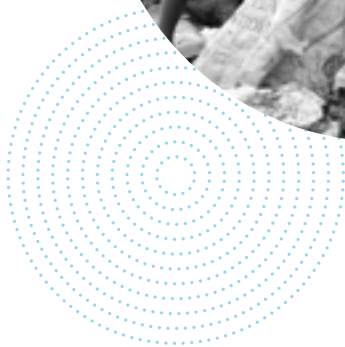
Lao People's Democratic Republic

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

As a country that is highly dependent on agriculture and natural resources, adapting to and mitigating the impacts of climate change feature prominently in national policies in Lao People's Democratic Republic. Two specific climate-related policy documents are the **National Adaptation Programme of Action to Climate Change (NAPACC) 2009** and the **Strategy on Climate Change 2010**. These documents are consistent with the country's broader development strategy documents including **Vision 2030**, the **Ten-year Socio-economic Development Strategy 2016–2025** and the **8th National Socio-economic Development Plan 2016–2020**, which each promote green and sustainable growth as well as effective and efficient use of natural resources.²⁸

II. What are the direct or indirect links of these strategies or policies to the labour market?

The NAPACC proposes a number of climate change adaptation-related priority actions in various sectors. Similarly, the Strategy on Climate Change sets forth sector-wise adaptation and mitigation strategies. In the agricultural sector, for instance, both documents underscore the importance of improving and developing animal species and plant varieties that are better adapted to natural disaster-prone areas as a way



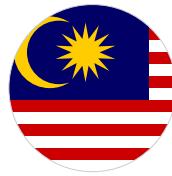
28 For more information on these three planning, see: Ministry of Planning and Investment, Government of Lao People's Democratic Republic: *8th Five-year National Socio-economic Development Plan (2016–2020)*, 2016.

of protecting livelihoods of households that depend on those resources. The Strategy on Climate Change also highlights strengthening the financial capabilities and instruments available to farmers as a key adaptation measure and the promotion of household and community-level biofuel generation technologies as a potential mitigation measure against climate change. It also highlights the need for improved forest management and points to the employment-creating potential of carbon sequestration, the process of capturing and storing atmospheric carbon dioxide.

On adaptation and mitigation policies in relation to the impact of climate change on water resources, the documents focus on the need to strengthen institutional and human capacity in water resource management and make water resources-related infrastructure climate-proof – taking into consideration the future projections of water flows owing to changing climate. The Strategy on Climate Change stresses a similar policy priority in relation to urban development. It seeks to promote climate-proofed urban infrastructure development and improve urban waste management to cut down on greenhouse gas emissions. Investments in climate-resilient infrastructure, in turn, could create new job opportunities in the economy. Policy priorities outlined for the industrial sector and the energy and transport sectors are closely linked in that they aim to promote the generation and use of renewable energy and more energy efficient technologies in transport and production processes. These measures across various sectors are together expected to contribute to transitioning the economy towards a low-carbon and greener future.

III. What are the roles of social partners and the private sector in the climate change strategies?

Information about the role of social partners in the formulation or implementation process of policies or strategies is lacking.



Malaysia

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

The current policies related to environmental challenges are embedded in the **Eleventh Malaysia Plan 2016–2020**, which is the socio-economic development plan of the country.²⁹ One of the six strategic thrusts of the Plan is “Pursuing green growth for sustainability and resilience”. Focus areas form part of that strategic thrust, namely the strengthening of the enabling environment for green growth, the adoption of the sustainable consumption and production concept, the conservation of natural resources for present and future generations, and the strengthening of resilience against climate change and natural disasters.

In previous years, Malaysia’s policies related to the environment and climate change were also laid down in separate strategies. The **National Policy on the Environment 2002** sets forth the general strategy on environmental policies.³⁰ The Policy includes eight principles to harmonize economic development goals with environmental imperatives: stewardship of the environment; conservation of nature’s vitality and diversity; continuous improvement in the quality of the environment; sustainable use of natural resources; integrated decision-making; the role of the private sector; commitment and accountability; and active participation in the international community.

In November 2009, the Government launched the **National Policy on Climate Change Malaysia 2010**, whose overall objective is to “ensure climate-resilient development to fulfil national aspirations for sustainability”.³¹ This

29 Economic Planning Unit, Prime Minister’s Department, Government of Malaysia: *The Eleventh Malaysia Plan 2016–2020: Anchoring growth on people*, 2016.

30 Ministry of Science, Technology and the Environment, Government of Malaysia: *National Policy on the Environment*, 2002.

31 Ministry of Natural Resources and Environment, Government of Malaysia: *National Policy on Climate Change*, 2009.

goal is broken down into three objectives, which are: (i) to mainstream climate change through wise management of resources and enhanced environmental conservation resulting in strengthened economic competitiveness and improved quality of life; (ii) to integrate responses into national policies, plans and programmes to strengthen the resilience of development against increasing and potential impacts of climate change; and (iii) to strengthen institutional and implementation capacity to better harness opportunities to reduce the negative impacts of climate change. A total of 43 individual policy actions are proposed and are mapped to ten strategic thrusts.

II. What are the direct or indirect links of these strategies or policies to the labour market?

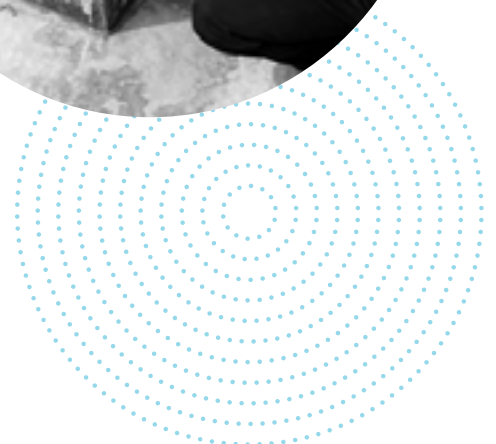
According to the Eleventh Malaysia Plan, the transition to green growth will be supported by the development of the required capacities, capabilities and skills development at all levels, supported by ministries as well as different government agencies, the private sector and academia. This will also include the identification of new competencies and skills needed for the development of areas such as renewable energies, demand side management, green construction, waste to energy, bioengineering and biosafety. The Plan aims to introduce and scale up training programmes and enhance their effectiveness through certification by relevant authorities. Moreover, the private sector will be encouraged to conduct training and increase the number of renewable energy experts.

The Eleventh Malaysia Plan promotes renewable energies as a source of job creation. It projects the creation of 15,300 jobs in the renewable energy sector and foresees the training of 1,740 workers through the Sustainable Energy Development Authority, creating experts in the field of biomass, biogas, mini hydro and solar photovoltaic systems. In contrast, none of the action areas outlined in the National Policy on Climate Change Malaysia 2010 or in the National Policy on the Environment 2002 seem to be directly linked to labour market-related issues.

III. What are the roles of social partners and the private sector in the country's strategies or policies that relate to environmental changes?

The private sector and social partners are mentioned in Malaysia's strategies and policies that relate to environmental changes. The Eleventh Malaysia Plan sees it as critical to create a long-term commitment from all stakeholders, including businesses, civil society, and most importantly the people, given that the transition towards an enabling environment for green growth and associated results will take time. No mention is made to the role of trade unions.

The National Policy on Climate Change Malaysia 2010 refers to "major groups", detailed in a glossary and including trade unions as well as enterprises. The Policy states that it "provides the framework to mobilise and guide" major groups and others in addressing the challenges of climate change in a holistic manner. The National Policy on the Environment 2002 explicitly mentions the role of the private sector in environmental protection and management.





Myanmar

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

Myanmar has various policy documents relating to climate change, green growth and environmental sustainability. The **National Environmental Policy** and the **Myanmar Climate Change Policy** were both presented in June 2019 as the country's strategies and action plans for adapting to and mitigating the impacts of climate change and environmental degradation, while also laying the foundations for the green transition of the economy.³² The **Myanmar Climate Change Master Plan 2018–2030** was also adopted in 2019.

The **Myanmar Sustainable Development Plan 2018–2030**, the long-term national planning document, also contains language in reaction to climate change.³³ It places importance on environmental sustainability and a green transition as complements to the industrialization and economic restructuring plan. The Economic Policy of the Union of Myanmar also makes a reference to the development of environmentally sustainable infrastructure.

II. What are the direct or indirect links of these strategies or policies to the labour market?

Under the various sectoral outcomes of the Myanmar Climate Change Master Plan, those most directly linked to the labour market are the aim to promote climate-smart responses in the agriculture, fisheries and livestock sectors, development of low-carbon energy, transport and industrial systems and strengthening

human capital. Promotion of climate-smart technologies and ensuring access to resources are expected to serve as input to many of the Plan's targets. Only under the target linked to low-carbon energy, transport and industrial systems is an indicator included on the number of green jobs created.

There are similarities in the language of the Climate Change Master Plan and the Myanmar Sustainable Development Plan. The latter proposes a number of measures for mitigating the impacts of climate change. Both plans call for the development of climate-resistant infrastructure, creating adequate environmental and social safeguards against the negative effects of infrastructure development, and facilitating small and medium-scale enterprises and industries to use environmentally friendly and resource-efficient inputs, technologies and processes. Both documents focus on fostering communities and economic sectors that are more resilient to natural disasters. They also address the need for a social protection and public employment systems as means to protect livelihoods in circumstances of climate-induced natural disasters and increasing the overall adaptive capacity of vulnerable communities to the impacts of climate change.

Measures such as scaling up investments in renewable energy sources, revising policies and use of incentives like subsidies to promote green transition and sustainable expansion of the tourism sector are envisaged with a view to advancing socio-economic well-being while conserving natural ecosystems. More generally, the Government seeks to promote sustainable consumption and production, embed the promotion of conservation and sustainability into development planning process at all levels – including accounting and reporting systems – and integrate climate-sensitive approaches to existing legislations and planning.

32 United Nations Development Programme (UNDP): "President announces national environment and climate change policies to mark World Environment Day 2019", Press release, 5 June 2019. To date, only the Climate Change Master Plan was found by the drafting team in English (website of the Myanmar Climate Change Alliance: <https://myanmarccalliance.org>), thus limiting any discussion on the environment plan in the subsequent section.

33 Ministry of Planning and Finance, Government of Myanmar: *Myanmar Sustainable Development Plan 2018–2030*, 2018.

III. What are the roles of social partners and the private sector in the climate change strategies?

While some of the measures mentioned above feature under Goal 3 of the Myanmar Sustainable Development Plan on “job creation and private sector-led growth”, the role of social partners and the private sector with regards to facilitating the green transition of the Burmese economy is not well articulated in the Plan. However, the private sector is expected to respond to the Government’s regulatory reforms and use of incentives in a way that furthers the agenda of transition to a low-carbon economy.

The Myanmar Climate Change Master Plan states that consultations were made across ministerial departments and with enterprises, city development committees, research and academia, private and non-governmental organizations, civil-society organizations, development partners from national and international agencies, experts, technical working groups of Myanmar Climate Change Alliance.



New Zealand

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

New Zealand currently has a number of different strategies and policies related to the environment, focusing on different issues such as air, fresh water, marine, land, resource management and waste. The **Climate Change Response Act 2002** is the current legislation under which seven regulations across sectors are linked, although it is now under review. In November 2016 the Government asked a group of technical experts from the public and private sectors to provide advice on how New Zealand could adapt to the effects of climate change. The Climate Change Adaptation Technical Working Group undertook two stocktaking reports.³⁴ These documents as well as a study commissioned to the Productivity Commission³⁵ served as input for the draft framework of a revised climate change policy. The **Zero Carbon Bill** was introduced as an amendment to the Climate Change Response Act 2002 and is expected for enactment by the end of the year.³⁶ It will ensure that all key climate legislation is within one Act with oversight expected from an independent Climate Change Commission.³⁷ Consultation on the Bill ended in July 2019.

34 Climate Change Adaptation Technical Working Group: *Stocktake report from the Climate Change Adaptation Technical Working Group*, December 2017, and *Recommendations from the Climate Change Adaptation Technical Working Group*, May 2018. Both available on the website of the Ministry for the Environment, Government of New Zealand web portal. Available at: <https://www.mfe.govt.nz/>.

35 The New Zealand Productivity Commission: *Low-emissions economy: Final report*, August 2018.

36 Ministry for the Environment, Government of New Zealand: *Climate Change Response (Zero Carbon) Amendment Bill: Summary* (Wellington, 2019).

37 See the website of the Ministry for the Environment, Government of New Zealand: “The transition to a low-emissions and climate-resilient Aotearoa New Zealand”. Available at: <https://www.mfe.govt.nz/climate-change/climate-change-and-government/climate-change-programme>.

Also in 2018, the Ministry of Business, Innovation and Employment, which is responsible for energy policy, announced the formation of a Just Transition Unit whose mission is to share and coordinate the work of transitioning New Zealand to a low emissions economy. The Unit engages with various partners in civil society and the private sector, including unions and employers, and works with priority groups to develop strategies for anticipating and responding to the transition, linked to the country's Economic Strategy. Within the Government, the Just Transition Unit works together with the Transition Hub in the Ministry of Environment, which will maintain overall responsibility for implementation of the forthcoming Zero Carbon Bill.

II. What are the direct or indirect links of these strategies or policies to the labour market?

The climate change policy framework of New Zealand aims to focus on (i) leadership at home and internationally; (ii) a productive, sustainable and climate resilient economy; and (iii) a just and inclusive society. The Government recognizes that "Climate change is not just an environmental issue, it has social and economic implications too, and shifting to a low emission economy presents new opportunities for innovation".

The draft Climate Change Response (Zero Carbon) Amendment Bill has the objective to reduce carbon emissions by 2050 while also creating jobs and improving the lives of New Zealanders. Under the framework of the coming Act, a National Climate Risk Assessment and National Adaptation Plan are expected to set the national approach to improving resilience. The 2019 Budget Policy Statement also acknowledges that low-carbon and climate-resilient growth and other socio-cultural, environmental and economic goals do not have to be mutually exclusive. It points to the need for bold long-term planning with a view to ensure that workers, businesses and communities are supported through such a transition away from fossil fuels and towards a low-carbon economy. For the moment, however, no details are found regarding specific reactive policies to be taken to promote green jobs in the country.

III. What are the roles of social partners and the private sector in the climate change strategies?

Social partners engage with the Government on its work toward a just transition including under the umbrella of the Future of Work Tripartite Forum, which includes employer and trade union representatives. The corresponding cabinet paper speaks of co-creation with communities, workers and business as a "cornerstone of a just transition approach". The Government's objective is to ensure strong buy-in from all stakeholders, including employers and workers. The New Zealand Council of Trade Unions published a document on the "Just transition: A working people's response to climate change" in October 2017.





Philippines

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

The Philippine Green Jobs Act (PGJA) of 2016 is a legislation that clearly links climate change and labour market outcomes.³⁸ It defines green jobs as “employment that contributes to preserving or restoring the quality of environment, be it in agriculture, industry, or services sector”. Furthermore, it states that, “green jobs are decent jobs that are productive, respect the rights of workers, deliver a fair income, provide security in the workplace and social protection for families, and promote social dialogue”. The PGJA affirms labour as the primary force in promoting sustainable development and recognizes the right of the people to a balanced and healthy ecology.

The **Inclusive Innovation Industrial Strategy (i³S)** under its pillar of “building new industries, clusters, and agglomerations” highlights that green policies are to be integrated into industrial development in order to make industries more “competitive, innovative, and environmentally-friendly”.³⁹ Similarly, the **Philippine Development Plan 2017–2022** directs government action towards the full implementation of the PGJA and the provision of incentives to shift industrial manufacturing towards more efficient and green processes.⁴⁰ Accelerating the development of sustainable resource-based production in sectors such as forestry and marine-based economies and promoting eco-tourism are other points within the Philippine Development Plan that link closely with the creation of green jobs and the move towards a greener economy.

II. What are the direct or indirect links of these strategies or policies to the labour market?

Creating green jobs and setting in motion a just transition towards a green economy are the stated objectives of the Filipino State under the PGJA. In order to achieve those objectives, the Act has outlined a number of provisions, both broad and specific. It directs the State to mainstream green jobs and the transition to a green economy into national development planning such that government agencies and units from the national to local levels include these concerns and considerations in their sectoral and local development planning agendas.

In order to encourage the creation of green jobs, the Government is directed to provide financial incentives to qualifying individuals and businesses. The incentives take the following two forms: (i) a special tax deduction from taxable income on expenses incurred by the individual or business on skills training and research and development for green jobs; and (ii) exemptions from customs duties and taxes for the import of capital equipment that is used directly in the promotion, generation and sustenance of green jobs.

Beyond financial incentives, the PGJA also directs the Department of Science and Technology to provide various business development-related support to micro, small and medium scale enterprises and other enterprises such as sub-contracting businesses to develop clean technologies and provide training on such technologies, among others. Similarly, the Department of Trade and Industries is to develop special business facilitation programmes for individuals and businesses that create green jobs.

An important measure that can be considered as both a preparatory action as well as one aimed at protecting workers from the impacts of climate change on livelihoods and job markets is the creation and operation of

38 Available at web portal of the Senate of the Philippines: https://www.senate.gov.ph/republic_acts/ra%2010771.pdf.

39 Department of Trade and Industry, Philippines: *Philippine Inclusive Innovation Industrial Strategy (i³S): Propelling jobs, investments and shared prosperity for all*, Policy Brief No. 2017-05, 2017.

40 National Economic and Development Authority, Government of the Philippines: *Philippine Development Plan 2017–2022 abridged version*, 2017.

training and skills development and certification programmes for green jobs. The PGJA directs the Department of Labour and Employment to formulate a **National Green Jobs Human Resource Development Plan** with the objective of enabling and sustaining the green transition, generating green jobs, and promoting quality employment and equal opportunities, social justice and workers' welfare.⁴¹ The Plan commits the Technical Education and Skills Development Authority to create required training regulations with a view to executing skills training, assessment and certification programmes in order to fill the gap of skilled human resources in the green economy. Such activities are to be focused particularly on sectors that are going through structural transformation as a result of climate change and the transition to a greener economy.

As far as the existing mechanisms for protection of displaced workers are concerned, the Philippines has an active labour market regime in place and a system of unemployment insurance is being developed. The country's emergency employment programme are short-term measures aimed to support workers displaced as a result of calamities and emergency situations, which may be linked to climate change.

III. What are the roles of social partners and the private sector in the climate change strategies?

The private sector is expected to respond to incentives extended by the Government in support of the transition to a green economy, thereby creating green jobs and switching to environmentally sustainable production technologies and processes. Information about the role of social partners in the formulation or implementation process of policies or strategies is lacking.



Singapore

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

The **National Climate Change Strategy 2012** was published by the National Climate Change Secretariat of the Prime Minister's Office in collaboration with a number of ministries and government agencies.⁴² The document describes the challenges and impacts of climate change, in the country and proposes the mitigation strategy to reduce emissions as well as policies to adapt to climate change in order to create "a more resilient Singapore". Finally, the National Climate Change Strategy outlines opportunities for green growth and proposes local and international partnerships on climate change through which to implement the policy suggestions.

In November 2014, the **Sustainable Singapore Blueprint 2015** was launched by the Government.⁴³ The Blueprint refers to environmental sustainability with the aim of developing a greener Singapore and it summarizes several case studies that refer to particular projects and policies that achieved this. The plan defines numerical targets to be achieved by 2030, referring to green and blue spaces, mobility, community stewardship, resource sustainability, air quality and drainage. There are, however, no explicit links between the National Climate Change Strategy 2012, the Sustainable Singapore Blueprint and the Smart Nation Strategy.

41 Institute for Labor Studies, Department of Labour and Employment, Government of the Philippines: *National Green Jobs Human Resource Development Plan*, Discussion Paper, 2018.

42 National Climate Change Secretariat, Prime Minister's Office, Government of Singapore: *National Climate Change Strategy 2012: Climate Change & Singapore* (Singapore, 2012).

43 Ministry of the Environment and Water Resources, Government of Singapore: *Sustainable Singapore Blueprint 2015*, 2014.

II. What are the direct or indirect links of these strategies or policies to the labour market?

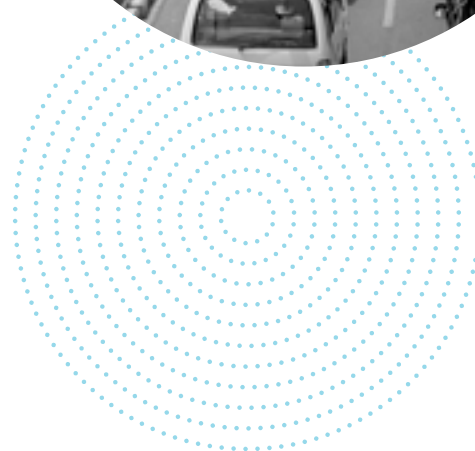
The National Climate Change Strategy 2012 as well as the Sustainable Singapore Blueprint 2015 view green growth as an opportunity for job creation and economic dynamism. In the former, Singaporean companies are encouraged to develop solutions to cope with climate change for the domestic as well as the export market, which is then expected to “create high value jobs for Singaporeans and propel our economy along a green growth trajectory”. The strategy views the adaptation of climate change in order to have a quality living environment as key to attract investments and create jobs. The Sustainable Singapore Blueprint 2015 provides examples of where the green sector has created jobs, mentioning 14,000 high value-added jobs in the water sector. It states that Singapore “will be a hub for the cutting-edge business of sustainable development, and jobs will be created in this exciting and meaningful sector”.

With regards to skills, the National Climate Change Strategy 2012 views Singapore as being well prepared to become a “green growth hub” given its base of “skilled talent and expertise for the cleantech industries and services”. The Strategy broadly refers to skills policies, emphasizing that Singapore will “continue to develop key capabilities in R&D and human capital” and mentions the Energy Services Company Accreditation Scheme and the Singapore Certified Energy Manager Programme as supportive for growing technical and professional capabilities related to the green economy. To encourage professionals to upgrade their skills, the programme offers a training grant that co-funds about 80 per cent of the cost of the training course.

The National Climate Change Strategy also puts emphasis on enterprise initiatives and corporate social responsibility, acknowledging the efforts made by enterprises to green their economic activity.

III. What are the roles of social partners and the private sector in the climate change strategies?

In the foreword to the National Climate Change Strategy, written by the Deputy Prime Minister, it is mentioned that everyone “has a part to play whether through lifestyle adjustments or changes to business processes.” Thus each person is seen to have a role to play in order to mitigate and adjust to climate change. Moreover, the private sector and civil society were consulted in the development of the various strategies, including through online consultations, focus group discussions and public forums.





Thailand

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

As a response to the changing climatic conditions and in order to better prepare for their likely impacts, Thailand has devised and adopted the **Master Plan on Climate Change (MPCC) 2015–2050**.⁴⁴ The Plan addresses the need to adapt to changing climatic conditions, mitigate their negative impacts and build capacity to better manage responses to them.

Climate change also features prominently in the **12th National Economic and Social Development Plan (NESDP)**, the country's principal planning document that serves as the guideline for national development for the period 2017–2021.⁴⁵ One of the three “traps” that it identifies as challenges to sustainable development is the “imbalance trap” that relates to growth that does not take into account the environmental damage and unsustainable use of resources. A climate change strategy is embedded in the larger national goal of industrial restructuring. Strategy 4 of the 12th NESDP on environmentally friendly growth for sustainable development broadly highlights the Government's policy options on orienting the economy towards green growth.

More specifically, the MPCC throws light on how climatic considerations are to fit in with the larger goals of industrialization and economic restructuring. It discusses a variety of policy options that are to be adopted in order to accelerate the transition towards a green economy. Among these are the promotion of eco-tourism and sustainable tourism, “green procurement” from the public and private sectors to drive the transition of production systems towards greener and cleaner methods, financial

incentives to aid industries and production facilities to adopt greener technologies, increased investments in renewable energy infrastructures, promoting investments in innovative and low-carbon industries, encouraging foreign direct investment that leads to low-carbon technology transfers, and capacity development of local personnel.

II. What are the direct or indirect links of these strategies or policies to the labour market?

Planning documents in Thailand discuss how climate change is set to have profound impacts on the labour market in two important ways. Sectors such as agriculture, fishing, forestry and manufacturing that is dependent on agro and forest products as inputs, are likely to be adversely affected as climate change alters the production of such products. This also includes one of country's economic mainstays, tourism.

Adapting agricultural practices and production methods in line with changing climatic conditions by training farmers and agricultural workers is another measure identified. Farm incomes can become increasingly vulnerable to exogenous shocks as erratic climatic conditions affect crop and livestock life cycles as well as natural disaster cycles. As a response, the MPCC has identified the need for measures such as insurance against damages incurred due to natural disasters and extreme weather conditions in order to protect families and communities dependent on agriculture against the impacts of climate change. Additional support in the form of capital to diversify income-generating sources is also identified as a way of dampening the impacts of climate change on the livelihoods of farmers.

The need to adapt the country's tourism model has also been highlighted as an area of focus in the transition towards a greener economy by national planning documents. The 12th NESDP, for example, underscores the need for a shift in the business model of tourism wherein conservation of natural environments can be complemented by additional income generation through the supply of local “biological” products. The MPCC outlines the need to develop and certify

44 Ministry of Natural Resources and Environment: *Master Plan on Climate Change 2015–2050*, 2015.

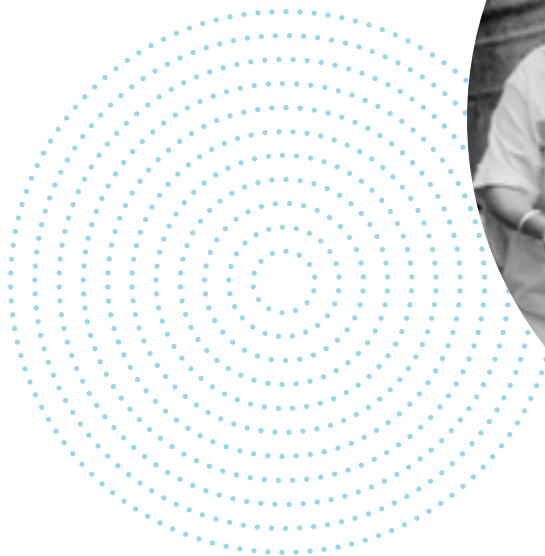
45 Office of the National Economic and Social Development Board, Office of the Prime Minister: *The Twelfth National Economic and Social Development Plan (2017–2021)*, 2016.

eco-tourism standards, develop tourism areas such that standards are set taking into account the carrying capacity of the destinations, and encourage tourism entrepreneurs to embrace eco-friendly and sustainable tourism.

A major focus of the MPCC is on promoting investments that aid the transition towards a green economy. The clearest link to the labour market in such a transition is the total net job creation as a result of investments in low-carbon emission and efficient production processes as well as in renewable energy sources. The plans lays out the Government's willingness to subsidize the costs of investments in renewable energy sources as well as the transition to cleaner and greener production processes. Promoting foreign direct investment that could lead to the transfer of low-carbon emission technologies and developing the capacity of domestic personnel in related areas is also identified as an option to create a low-carbon industrial environment while also calling for the protection of domestic manufacturing and industrial bases in the course of the green transition. An important part of such a transition is adequately equipping the labour force with the requisite skills in a changing industrial ecosystem. On this front, the MPCC has highlighted the need to collaborate with the private sector in order to develop the skills and capacity of the labour force to adapt to the greener production of goods and services.

III. What are the roles of social partners and the private sector in the climate change strategies?

The roles of academia and the private sector in developing technologies that aid the transition towards a greener economy and training the labour force to adapt to such changes have been identified in the national development plans. The MPCC implicitly attributes the role of the private sector to the conservation and preservation of the natural environment through corporate social responsibility programmes. Specifically, it highlights the Government's potential to leverage private sector initiatives towards better management of forest resources by creating a network for integration and extension of various corporate social responsibility programmes. The private sector is expected to respond to the incentives created by the Government to facilitate the transition towards a low-carbon economy and fill market gaps in services such as insurance against crop failures and other climate-related exogenous shocks such as natural disasters. Information about the role of workers' and employers' groups in the formulation or implementation process of policies or strategies is lacking.





Viet Nam

I. Does the country have strategies or policies that explicitly relate to issues of climate change?

There are numerous documents that relate to climate change mitigation and environment planning in Viet Nam. These include the **National Strategy on Environment Protection to 2020, with Visions to 2030** (Decision 1216/QĐ-TTg, 5 September 2012), the **National Strategy on Climate Change** (Decision 2139/QĐ-TTg, 5 December 2011), the **National Action Plan to Respond to Climate Change** (Decision 1474/QĐ-TTg, 5 September 2012), the **National Green Growth Strategy** (Decision No.1393/QĐ-TTg, 25 September 2012) and the **National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020** (Decision No. 172/2007/QĐ-TTg, 16 November 2007). In addition, the **Socio-economic Development Plan, 2016–2020** calls for an active response to climate change, prevention of natural disasters, enhanced natural resource management and environmental protection.⁴⁶

These strategy documents have in common one objective, which is to boost scientific and technological research, development and application for environmental protection, and to promote the transition to a green economy. The issue of food and water security is also included in the various planning documents as is development and use of renewable energy sources.

II. What are the direct or indirect links of these strategies or policies to the labour market?

The climate change and environmental protection strategies in Viet Nam link to the labour market in the areas of job creation and skills development. The Green Growth Strategy aims to “boost [...] green economic sectors to rapidly develop to create more jobs, raising income and enriching more natural capital sources, by (i) developing green economic sectors; (ii) developing and issuing standards on economic sectors, green/eco labelled products; (iii) implementing incentive policies for scientific and technological study and development, production and encouraging the use of green/eco products; and (iv) issuing special policies of technical economic assistance to encourage all businesses and individuals to apply high techniques and technology, suitable for the promotion and development of some key traditional green products that Viet Nam has advantages such as herbs, ecological agriculture, forestry and fisheries, foodstuffs, consumer goods and textiles from local materials”. The latter implies that tax or other subsidies will be offered to encourage adaptation within enterprises.

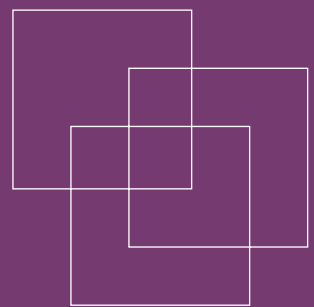
Both the Green Growth Strategy and the National Action Plan to Respond to Climate Change contain objectives related to developing the human resources for managing green production, climate change prevention and developing the information and data systems for both. The country’s training and education systems are thus implicated in the strategies.

III. What are the roles of social partners and the private sector in the climate change strategies?

Information about the role of social partners in the formulation or implementation process of policies or strategies is lacking.

⁴⁶ All planning documents are available at <https://vanbanphapluat.co/>.

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