EAST ASIA
PACIFIC

Thailand

World Bank Group

COUNTRY CLIMATE AND DEVELOPMENT REPORT

1.
Introduction

1 Introduction

The Thailand Country Climate and Development Report (CCDR) identifies ways in which Thailand can achieve economic development that is greener and more climate resilient. Despite several decades of development success, Thailand's aspirations to become a high-income economy are facing headwinds: investment growth has slowed, structural transformation out of agriculture and into higher value-added activities has stalled, rising global protectionism poses threats to exports, and the population is aging rapidly. Incomes and wealth are concentrated in Bangkok, while other parts of the country struggle to develop. Climate change is reinforcing and exacerbating these challenges. Urban flooding risks are among the highest in the world and Bangkok – which hosts a concentration of Thailand's export-oriented industries – remains especially vulnerable. The relatively poor north and north-eastern parts of Thailand are vulnerable to drought, water shortages, and changing rainfall patterns, which will continue to impact agricultural production, exacerbating existing inequalities. Heat waves and prolonged heat exposure directly impact labor productivity and well-being, as well as increasing risks of illness.

Although Thailand is not a major emitter, substantial investments and reforms are needed to achieve the country's goals of reaching carbon neutrality by 2050 and net zero emissions by 2065. Reducing emissions will involve decarbonizing the electricity and transport sectors, investing in cleaner technologies, increasing energy efficiency, and adopting more sustainable climate-smart practices in agriculture. There are compelling co-benefits associated with such measures: lower costs, greater energy security (as fossil fuel dependence declines), improved air quality, and less congestion. At the same time, the global net-zero transition means that Thailand's future comparative advantage will hinge on its ability to lower the emission intensity of its economy, and shift production toward greener goods and services. Thailand is deeply integrated into global value chains and manufactured exports are a key driver of economic activity, equivalent to around half of GDP. Meeting international standards and requirements for greener production is therefore critical. The global transition toward sustainability is also generating new export opportunities for countries like Thailand, which has the potential to produce more complex green products and offer more sustainable tourism experiences.

Thailand must move swiftly to address both the physical and transition risks posed by climate change and to seize the opportunities that come with a global shift toward sustainability. Business as usual is no longer a viable path, and while the costs of required investments are substantial, the costs and risks of inaction are much higher. This Country Climate and Development Report (CCDR) offers a strategic playbook to support Thailand's climate ambitions, complementing existing national plans. It assesses critical risks to the economy, including the direct impacts of floods, droughts, heat stress, and other climate-related disasters, as well as the potential consequences for trade and investment if progress on emissions reduction and resilience-building falls short.

The report outlines concrete actions to help Thailand adapt to the impacts of climate change and reduce its greenhouse gas emissions. It also highlights the economic opportunities arising from global decarbonization efforts—particularly in sectors where Thailand holds comparative advantages, such as electric vehicle and component manufacturing, solar technologies, and energy-efficient air conditioning. Recognizing that public resources alone will not suffice, the CCDR underscores the vital role of private finance in scaling up investments in adaptation, mitigation, and innovation. As part of its analysis, the CCDR reviews current government plans, evaluating their alignment with national climate objectives, identifying implementation challenges, and pinpointing where additional efforts will be required.

This CCDR is organized in seven chapters. Chapter 2 describes the key inter-linkages between climate change and socio-economic development in Thailand, in the context of the country's current climate commitments and plans. Chapters 3 and 4 delve more deeply into the challenges Thailand faces in adapting to physical risks and reducing GHG emissions. Chapter 5 assesses green growth opportunities. Chapter 6 addresses the challenges of mobilizing financing to meet adaptation and mitigation investment needs, and the implications for Thailand's macro-fiscal sustainability. Chapter 7 concludes with a summary of policy recommendations.

World Bank Group, 30th Floor, Siam Piwat Tower,
989 Rama 1 Road, Pathumwan, Bangkok 10330
E-mail : thailand@worldbank.org l Tel. 02-686-8300

worldbank.org/thailand facebook.com/WorldBankThailand