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ENVI MAHIDOL Top Priority

Advancing Green Growth and Climate Resilience in Thailand: Policy Insights for Sustainable Development

Background

Thailand is very susceptible to climate change with increasing sea levels, severe weather events and altered precipitation patterns presenting considerable threats to both urban and rural regions [1]. These impacts could affect key sectors such as agriculture, tourism, and fisheries. Thailand's updated Nationally Determined Contribution **(NDC 3.0)** aims **to cut greenhouse gas emissions by 47% by 2035** and **achieve net-zero emissions by 2050**, supporting the country's transition to a low-carbon and climate-resilient economy [2].

The World Bank report *Towards a Green and Resilient Thailand* provides valuable insights regarding the economic risks associated with climate change and the opportunities for Thailand to enhance its sustainability agenda [1], including:

Key Climate Risks

Agriculture & Fisheries	Heat Stress	Economic Impact
$2.9–$5.4B agricultural losses **$26.2B** fisheries production at risk	**$11–17B** annual cooling costs	**$553B** potential GDP loss by 2050

Key Insights

Economic Risks to Agriculture and Fisheries:
Climate change threatens agricultural productivity and fisheries, affecting the livelihoods of many rural and low-income communities.

Heat Stress and Productivity :
Rising temperatures lower labor productivity in outdoor industries including agriculture and construction, while increasing cooling demand.

Environmental Degradation:
Forest loss and ecosystem degradation reduce climate resilience and increase long-term economic risk.

Policy Recommendations

Invest in Climate-Resilient Infrastructure and Strengthen Land-use Planning:
Enhance flood management, early warning technology, and climate resilience infrastructure as well as land-use planning and ecosystem restoration.

Accelerate the Transition to Clean Energy:
Accelerate the utilization of renewable energy, promote energy efficiency, and facilitate the adoption of electric vehicles to mitigate emissions and enhance energy security.

Promote Circular Economy Practices:
Strengthen recycling systems, minimize plastic waste, and promote sustainable production and consumption. By 2030, a circular economy has the potential to generate approximately **160,000 jobs** and increase Thailand's GDP by **approximately 1%**.

References

[1] World Bank. (2024). Towards a Green and Resilient Thailand.
[2] United Nations Framework Convention on Climate Change (UNFCCC). 2025. Thailand's Nationally Determined Contribution (NDC 3.0).