Indonesia snapshot: Costs of climate change in 2050

Projected costs ~ 1.4% of GDP
In the year 2050, the annual costs of climate change in Indonesia could total as much as 132 trillion Indonesian rupiahs (US$14.8 billion).

Projected climate change impacts in Indonesia

- More droughts
- Temperature increases
- More forest/brush fires
- Loss of reefs, wetlands, mangroves
- Higher sea levels and more flooding
- More rain in some areas, less elsewhere

Breakdown of projected costs across three areas studied

- Agriculture: 53%
- Health: 34%
- Sea level rise: 13%

Provinces will be affected differently

Provinces with likely financial losses
Provinces with potential financial gains* "In areas with more rainfall, agricultural gains may offset costs of health and sea level rise.

Other provinces with a high share of costs:
- Jawa Timur: 19%
- Jawa Tengah: 15%
- Jawa Barat: 9.5%

Agriculture
- Nationally, irrigated rice, soy and sugar cane production likely to decline.
- Where rainfall increases, corn and rainfed rice production may also rise, especially in Gorontalo and Lampung.
- Output in 2050 may increase in 11 provinces and decline in the remaining 23.

Health
- Costs associated with dengue fever expected to rise, especially in Jakarta.
- Dengue fever incidence may decline in Java Tengah, DI Yogyakarta, Nusa Tenggara Timur.
- Malaria incidence expected to rise in all provinces, especially Papua Barat and Papua.

Sea level rise
- Commercial and residential property losses account for 84% of costs from sea level rise.
- Jakarta accounts for 80% of those costs, due to concentration of high-value properties.
- Flooding and saline intrusion in agriculture and aquaculture areas likely to reduce production.

WHAT WE CAN DO

Step up planning
Increase cooperation between national and provincial governments on response, adaptation and budgeting.
- Expand government and private sector collaboration, especially on leveraging potential agricultural gains.
- Prioritize responses to sea level rise and health impacts in urban areas, especially Jakarta.

Gather more evidence
Invest in research on: policy responses; future agricultural yields and alternative crops; changing disease patterns; the probability of extreme storms and macroeconomic implications of impacts on Jakarta.

Learn more
Based on Indonesia Costs of Climate Change 2050, a 2016 study of all provinces. Funded by the USAID ATLAS activity, the study, a policy brief and the underlying excel sheets are available on the ATLAS Climatelinks page: https://www.climatelinks.org/projects/atlas. This document does not necessarily reflect the views of USAID or the US government. July 2017.