CLIMATE CHANGE AND DISASTERS IN ASIA AND THE PACIFIC

Climate change and disasters threaten the long-term sustainability of development in Asia and the Pacific. The region has experienced a significant increase in the number, intensity, and impact of extreme weather events such as tropical cyclones, floods, droughts, and heat waves. Geophysical hazards, including earthquakes and tsunamis, have also caused significant loss of lives and economic damage.

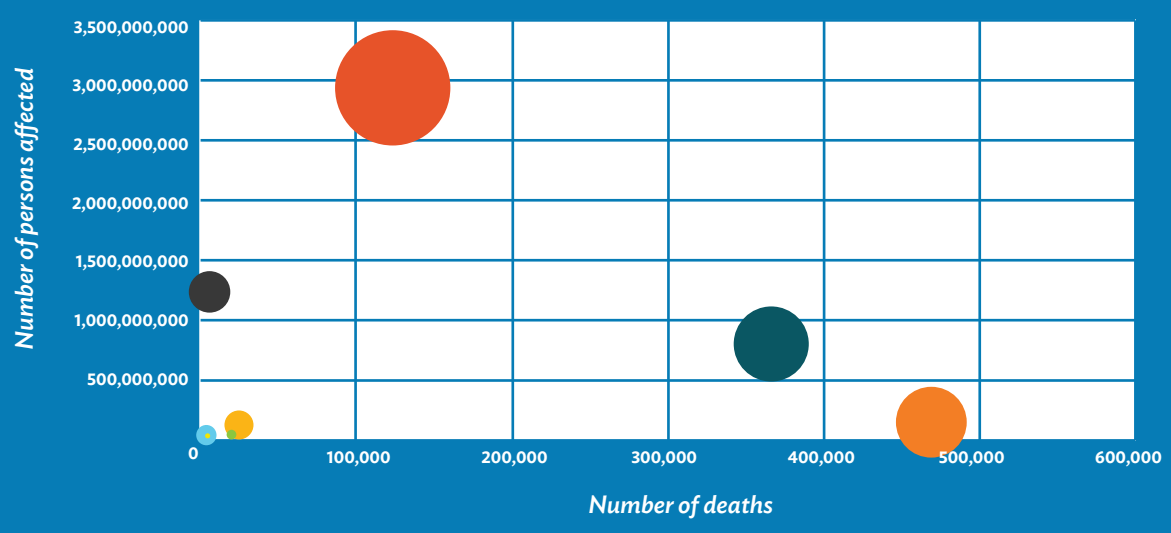
DISASTERS

5.2 billion
People affected by disasters (2000–2018)

1 million
Disaster fatalities

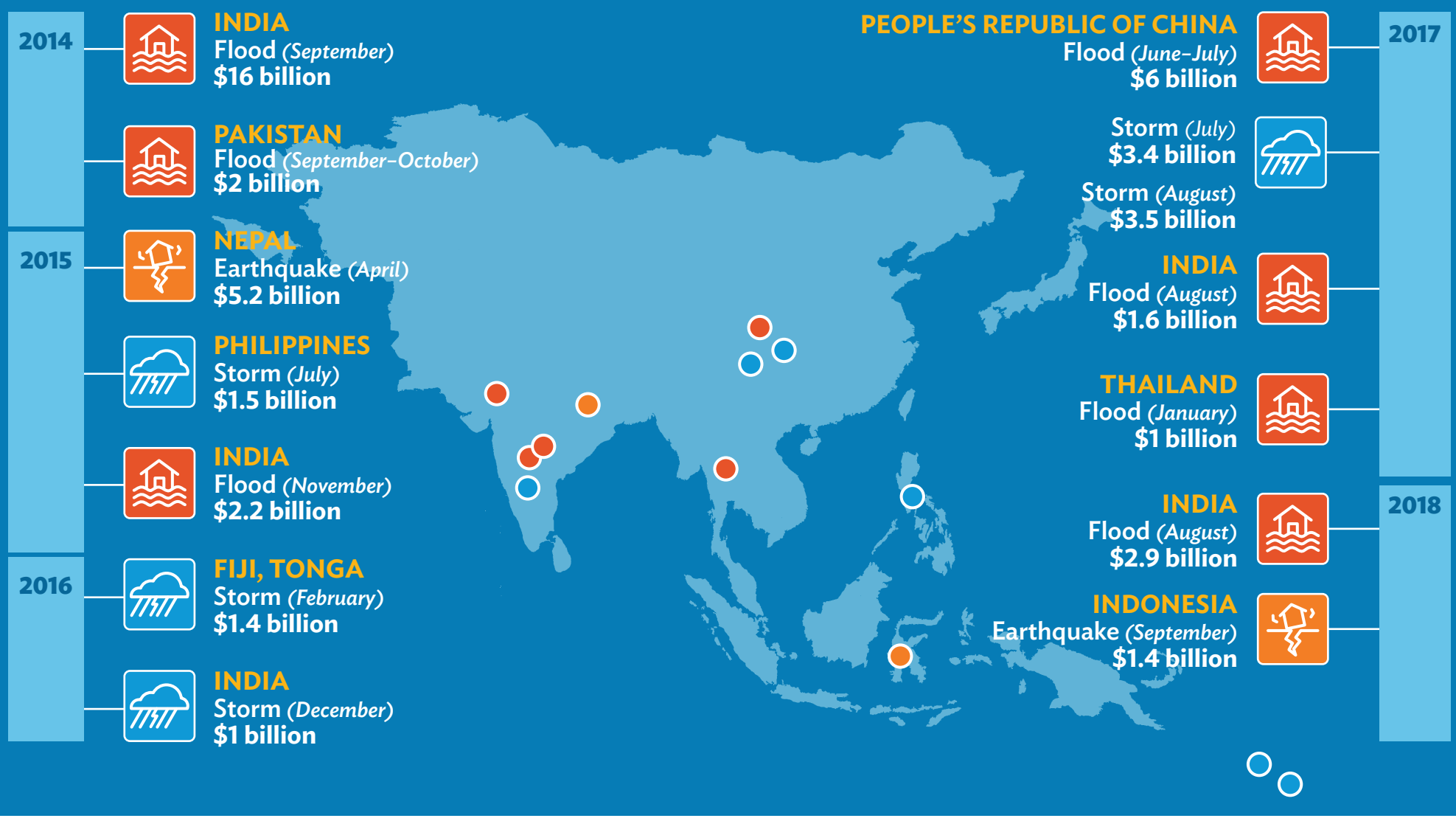
843.6 billion
Total direct physical loss

Impacts from Disasters in Asia and the Pacific (1989–2018)



- $413.7 billion: *Flood*
- $181.8 billion: *Storm*
- $155.5 billion: *Earthquake*
- $51.9 billion: *Drought*
- $24.5 billion: *Extreme temperature*
- $12.5 billion: *Wildfire*
- $3.2 billion: *Landslide*
- $0.5 billion: *Volcanic activity*
- $0.008 billion: *Mass movement (dry)*[1]

Damages from Recent Disasters in Asia and the Pacific[2]



Notes:

[1] Mass movement refers to any type of downslope movement of earth materials. *(Center for Research on the Epidemiology of Disasters)*

[2] The amounts refer to the monetary amount of damage to property, crops and livestock at the year of the event. *(Center for Research on the Epidemiology of Disasters)*

[3] Asia and the Pacific, as defined in the World Energy Outlook 2018, includes the following: Australia; Bangladesh; Brunei Darussalam; Cambodia; Democratic People's Republic of Korea; India; Japan; Lao People's Democratic Republic; Malaysia; Mongolia; Nepal; New Zealand; Pakistan; People's Republic of China; Philippines; Republic of Korea; Singapore; Sri Lanka, Taipei,China; Thailand; Viet Nam, and other economies and territories.

Sources:

- Aon Benfield. 2017. *2016 Annual Global Climate and Catastrophe Report*. London.
- Asian Development Bank (ADB) 2017. *Climate Change Operational Framework 2017–2030: Enhanced Actions for Low Greenhouse Gas Emissions and Climate-Resilient Development*. Manila.
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- Centre for Research on the Epidemiology of Disasters. The Emergency Events Database. https://www.emdat.be/ (accessed 24 June 2019).
- Global Carbon Project. Global Carbon Atlas. http://www.globalcarbonatlas.org (accessed 7 June 2019)
- International Energy Agency. 2018. *World Energy Outlook 2018*. Paris.
- International Renewable Energy Agency. Renewable Electricity Capacity and Generation Statistics. http://resourceirena.irena.org/gateway/dashboard/?topic=4&subTopic=54 (accessed on 27 June 2019).

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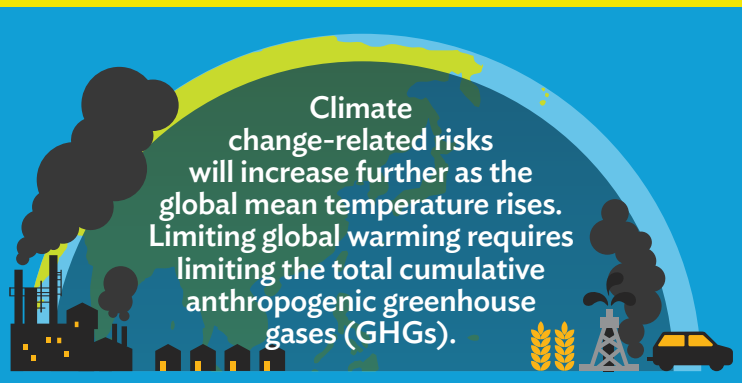
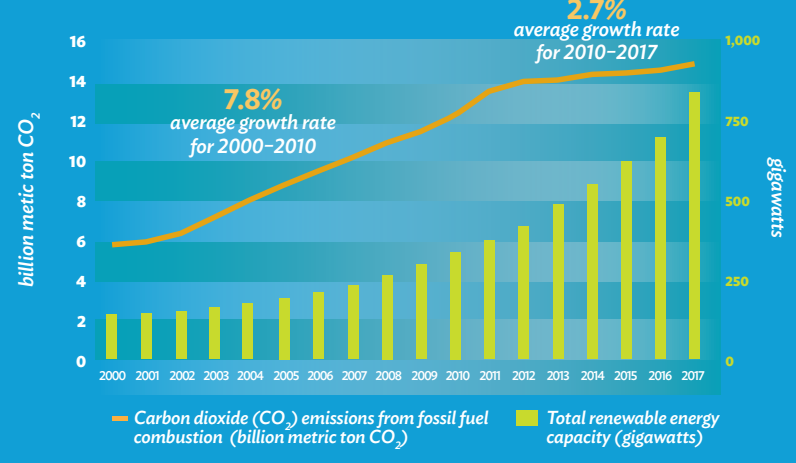
ASIA AND THE PACIFIC'S RESPONSE TO ADDRESS CLIMATE CHANGE AND DISASTER RISK

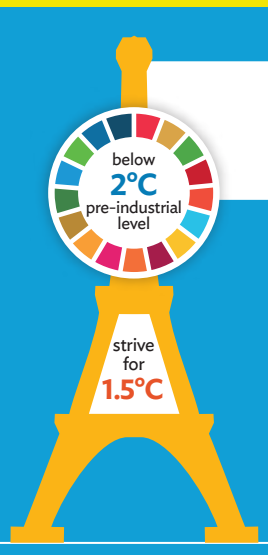


In recent years, total GHG emissions in the region has been reduced as renewable energy development has accelerated.

Carbon dioxide emissions from fossil fuel combustion and total renewable energy capacities in ADB multilateral development banks (MDBs)



In 2017, the People's Republic of China renewable energy capacity reached **696 gigawatts**, ranking first among all countries.



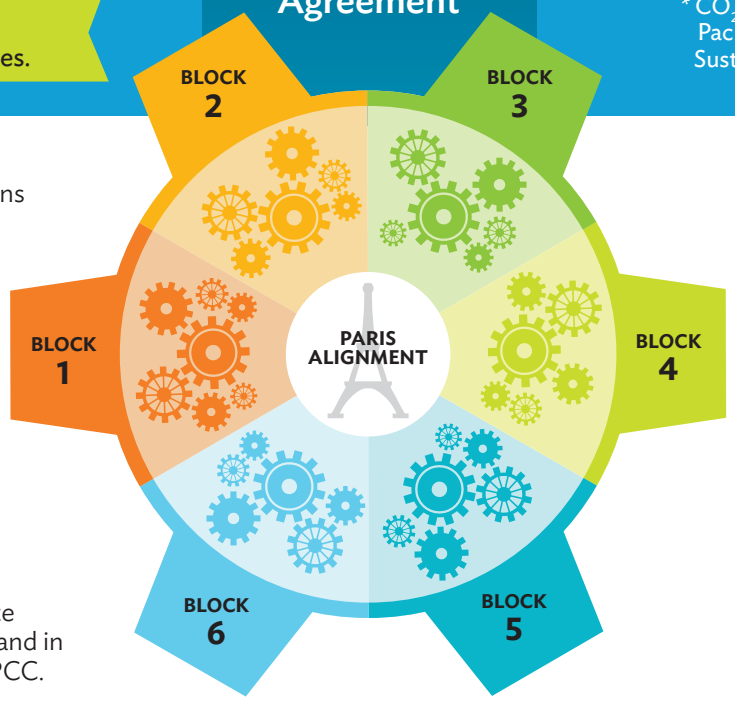
PARIS AGREEMENT

- Limiting global warming to reduce the risks and impacts of climate change
- Increase ability to adapt to impacts of climate change

In their Nationally Determined Contributions (NDCs), countries in Asia and the Pacific committed to reducing their GHGs by:

- Reducing the emission intensity of growth
- Increasing the share of renewable energy in the energy mix
- Improving forest cover

Six building blocks jointly agreed by the MDBs as core areas for alignment with the objectives of the Paris Agreement



1 Alignment with mitigation goals

Operations consistent with national low-emissions development pathways and compatible with objectives of the Paris Agreement.

2 Adaptation and climate-resilient operations

Operations systematically screened for climate-resilience. Support increase in clients' ability to adapt to climate change.

3 Accelerated contribution to the transition through climate finance

Further scale up climate finance, operationalize new approaches to support NDCs, and accelerate realization of ambitions agreed under UNFCCC and in line with science-based evidence identified by IPCC.

4 Engagement and policy development support

Develop new services to support clients put in place long-term strategies for low-emissions and climate-resilient development while ensuring consistency with SDGs.

5 Reporting

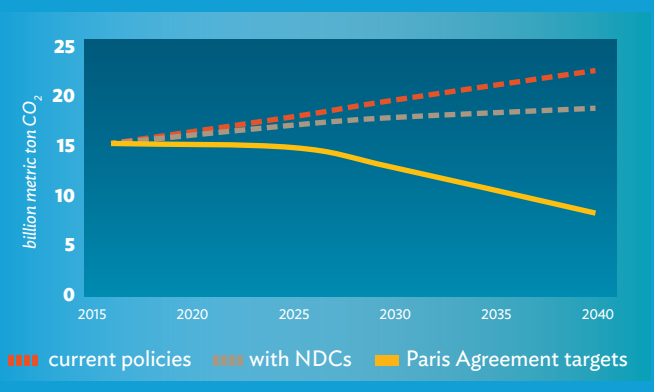
Develop tools and methods for characterizing, monitoring, and reporting on Paris-aligned activities.

6 Align internal activities

Progressively ensure that internal operations, including facilities and other internal policies, are in line with the Paris Agreement.

THE EMISSIONS GAP IN ASIA AND THE PACIFIC*

Outlook vs Paris Agreement Target

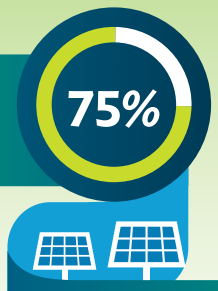


* CO_2 emissions from fossil fuel combustion for Asia and the Pacific[3] for scenarios (Current Policies, New Policies, and Sustainable Development) in World Energy Outlook 2018

ADB IN ACTION

As a strategic operational priority, ADB is scaling up support in:

- Tackling climate change
- Building climate and disaster resilience
- Enhancing environmental sustainability



ADB will ensure that 75% of the number of its committed operations will be supporting climate change mitigation and adaptation by 2030.

Climate finance from ADB's own resources will reach $80 BILLION cumulatively from 2019 to 2030.

ADB ACTIONS TO SUPPORT DEVELOPING MEMBER COUNTRIES

- Supporting institutional development and policy frameworks conducive to ambitious climate action
- Developing knowledge solutions and capacity development
- Facilitating access to public, private, domestic, and international climate finance, including through carbon markets
- Strengthening partnerships and networks
- Promoting use of climate technologies in operations

ADB OPERATIONAL APPROACHES

A. Enhanced actions to mitigate climate change

- Clean energy
- Sustainable urban development
- Sustainable transport
- Climate-smart agriculture and sustainable land-use management

B. Comprehensive approach to climate and disaster resilience

C. Enhanced environmental sustainability

- Air quality management
- Natural capital management
- Environmental governance
- Water-food-energy nexus
- Freshwater and marine pollution management
- Sustainable infrastructure design
- Green business, jobs, and technologies