

EXPLANATORY NOTES

Analyses in the *Asia-Pacific Disaster Report 2017* are based on data and information available up to the end of July 2017.

The Asia-Pacific region, unless otherwise specified, refers to the group of ESCAP members and associate members that are within the Asia and the Pacific geographic region. Groupings of countries and territories/areas referred to in the present edition of the Report are defined as follows:

- **ESCAP region:** Afghanistan; American Samoa; Armenia; Australia; Azerbaijan; Bangladesh; Bhutan; Brunei Darussalam; Cambodia; China; Cook Islands; Democratic People's Republic of Korea; Fiji; French Polynesia; Georgia; Guam; Hong Kong, China; India; Indonesia; Iran (Islamic Republic of); Japan; Kazakhstan; Kiribati; Kyrgyzstan; Lao People's Democratic Republic; Macao, China; Malaysia; Maldives; Marshall Islands; Micronesia (Federated States of); Mongolia; Myanmar; Nauru; Nepal; New Caledonia; New Zealand; Niue; Northern Mariana Islands; Pakistan; Palau; Papua New Guinea; Philippines; Republic of Korea; Russian Federation; Samoa; Singapore; Solomon Islands; Sri Lanka; Tajikistan; Thailand; Timor-Leste; Tonga; Turkey; Turkmenistan; Tuvalu; Uzbekistan; Vanuatu; and Viet Nam
- **East and North-East Asia:** China; Democratic People's Republic of Korea; Hong Kong, China; Japan; Macao, China; Mongolia and Republic of Korea
- **North and Central Asia:** Armenia; Azerbaijan; Georgia; Kazakhstan; Kyrgyzstan; Russian Federation; Tajikistan; Turkmenistan and Uzbekistan
- **Pacific:** American Samoa; Australia; Cook Islands; Fiji; French Polynesia; Guam; Kiribati; Marshall Islands; Micronesia (Federated States of); Nauru; New Caledonia; New Zealand; Niue; Northern Marina Islands; Palau; Papua New Guinea; Samoa; Solomon Islands; Tonga; Tuvalu and Vanuatu
- **South and South-West Asia:** Afghanistan; Bangladesh; Bhutan; India; Iran (Islamic Republic of); Maldives; Nepal; Pakistan; Sri Lanka and Turkey
- **South-East Asia:** Brunei Darussalam; Cambodia; Indonesia; Lao People's Democratic Republic; Malaysia; Myanmar; Philippines; Singapore; Thailand; Timor-Leste and Viet Nam

Developing ESCAP region: ESCAP region excluding Australia; Japan and New Zealand

Developed ESCAP region: Australia; Japan and New Zealand

Countries with Special Needs

- Least developed countries: Afghanistan; Bangladesh; Bhutan; Cambodia; Kiribati; Lao People's Democratic Republic; Myanmar; Nepal; Solomon Islands; Timor-Leste; Tuvalu and Vanuatu. Samoa was part of the least developed countries prior to its graduation in 2014
- Landlocked developing countries: Afghanistan; Armenia; Azerbaijan; Bhutan; Kazakhstan;

Kyrgyzstan; Lao People's Democratic Republic; Mongolia; Nepal; Tajikistan; Turkmenistan and Uzbekistan

- Small island developing States: Cook Islands; Fiji; Kiribati; Maldives; Marshall Islands; Micronesia (Federated States of); Nauru; Niue; Palau; Papua New Guinea; Samoa; Solomon Islands; Timor-Leste; Tonga; Tuvalu and Vanuatu

ECONOMIC CLASSIFICATIONS AND GROUPINGS

The classification of countries into income groups is from the World Bank. The World Bank divides countries according to their 2015 gross national income per capita, calculated using the World Bank Atlas method. Group classifications are: low income (\$1,025 or less), lower-middle income (\$1,026– \$4,035), upper-middle income (\$4,036–\$12,475) and high income (\$12,476 or more).

- **Low-income economies:** Afghanistan; Democratic People's Republic of Korea; Nepal.
- **Lower middle-income economies:** Armenia; Bangladesh; Bhutan; Cambodia; India; Indonesia; Kiribati; Kyrgyzstan; Lao People's Democratic Republic; Federated States of Micronesia; Mongolia; Myanmar; Pakistan; Papua New Guinea; Philippines; Samoa; Solomon Islands; Sri Lanka; Tajikistan; Timor-Leste; Tonga, Uzbekistan; Vanuatu; Viet Nam.
- **Upper-middle-income economies:** American Samoa; Azerbaijan; China; Fiji; Georgia; Iran (Islamic Republic of); Kazakhstan; Malaysia; Maldives; Marshall Islands; Palau; Russian Federation; Thailand; Turkey; Turkmenistan; Tuvalu.
- **High-income economies:** Australia; Brunei Darussalam; French Polynesia; Guam; Hong Kong, China; Japan; Macao, China; Nauru; New Caledonia; New Zealand; Northern Mariana Islands; Republic of Korea; Singapore.

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Mention of firm names and commercial products does not imply the endorsement of the United Nations.

References to dollars (\$) are to United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million. The term "trillion" signifies a million million.

In the tables, two dots (..) indicate that data are not available or are not separately reported; a dash (-) indicates that the amount is nil or negligible; and a blank indicates that the item is not applicable.

In dates, a hyphen (-) is used to signify the full period involved, including the beginning and end years, and a stroke (/) indicates a crop year, fiscal year or plan year.

ABBREVIATIONS

AAAA	Addis Ababa Action Agenda
AAL	Annual Average Loss
ABA	Area Based Approaches
ACCCRN	Asian Cities Climate Change Resilience Network
ADB	Asian Development Bank Institute
ADPC	Asian Disaster Preparedness Center
AOGCMs	Atmosphere-Ocean General Circulation Models
APDIM	Asian and Pacific Centre for the Development of Disaster Information Management
Aqua-MODIS	Aqua - Moderate Resolution Imaging Spectroradiometer
ARISE	ASEAN Regional Integration Support from the EU
ASI	Agriculture Stress Index
AWS	Automatic Weather Stations
AVHRR	Advanced very-high-resolution radiometer
BHRC	Building and Housing Research Center
BWDB	Bangladesh Water Development Board
CCA	Climate Change Adaptation
CDAAS	Climate Data Access and Analysis System
CERF	The United Nations Central Emergency Response Fund
CFAB	Climate Forecast Application in Bangladesh
CLIVAR	Climate and Ocean: Variability, Predictability and Change
CMIP	Coupled Model Inter-Comparison Project
CORDEX	Coordinate Regional Downscaling Experiment
CRED	Centre for Research on the Epidemiology of Disasters
CREWS	Climate Risk and Early Warning System
CRIV	CREF Index for Risk and Vulnerability
CSN	Countries with Special Needs
DDPM	Department of Disaster Prevention and Mitigation (Thailand)
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DWR	Doppler Weather Radar
ECMWF	The European Centre for Medium-Range Weather Forecasts
EM-DAT	Emergency Events Database
ENSO	El Niño-Southern Oscillation

EPS	Ensemble Prediction System
ESA	European Space Agency
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCP	Eastern Solent Coastal Partnership
EU	European Union
EWS	Early Warning System
FAO	Food and Agriculture Organization of the United Nations
FFWC	Flood Forecasting and Warning Center
FRDP	Framework for Resilient Development in the Pacific
FSC	Food Security Cluster
GAR	Global Assessment Report
GCM	General Circulation Models
GDDP	Global Daily Downscaled Projections
GDP	Gross domestic product
GED	General Education Development
GFCs	Global Framework For Climate Services
GFDRR	Global Facility for Disaster Reduction and Recovery
GISTDA	Geo-Informatics and Space Technology Development Agency
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GHG	Greenhouse gas
HDI	Human Development Index
IBFI	Index Based Flood Insurance
ICIMOD	The International Centre for Integrated Mountain Development
ICLEI	International Council for Local Environmental Initiatives
ICRC	International Committee of Red Cross and Red Crescent
ICT	Information and Communication Technology
IDMC	Internal Displacement Monitoring Centre
IDP	Internally Displaced People
IFPRI	International Food Policy Research Institute
INFORM	Index for Risk Management
IOTWMS	Indian Ocean Tsunami Warning and Mitigation System
IPCC	Intergovernmental Panel on Climate Change
IWMI	The International Water Management Institute
JRC	Joint Research Center
LDC	Least Developed Countries
LECZ	Low Elevation Coastal Zones
LiDAR	Light Detection and Ranging
LISS	Linear Imaging Self-Scanning Sensor

LLDC	Landlocked Developing Countries
MMI	Modified Mercalli Intensity
MODIS	The moderate-resolution imaging spectroradiometer
MunichRe	Munich Reinsurance Company
NatCatSERVICE	Natural catastrophe statistics online
NAPA	National Adaptation Plans of Action
NASA-SeaWiFS	National Aeronautics and Space Administration - Sea-viewing Wide Field-of-view Sensor
NCOF	National Climate Outlook Forum
NDGC	National Geophysical Data Center
NDMA	National Disaster Management Authority
NEX	NASA Earth Exchange
NMHSs	National Meteorological and Hydrological Services
NOAA	The National Oceanic and Atmospheric Administration
NREGA	National Rural Employment Guarantee Act
NWP	Numerical Weather Prediction
OECD	Organization for Economic Co-operation and Development
OCHA	The United Nations Office for the Coordination of Humanitarian Affairs
OCM	Ocean Color Monitor
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OFDA	Office of United States Foreign Disaster Assistance
PDMA	Provincial Disaster Management Authority
PDNA	Post Disaster Needs Assessment
PDSI	Palmer Drought Severity Index
PML	Probable Maximum loss
PTC	Panel on Tropical Typhoons
PWD	People with disabilities
RCOFs	Regional Climate Outlook Forums
RCP	Representative Concentration Pathways
RECI	Regional Economic Cooperation and Integration
RESAP	Regional Space Applications Programme for Sustainable Development
RIMES	Regional Integrated Multi Hazard Early Warning System for Africa and Asia
SAR	Synthetic Aperture Radar
SDGs	Sustainable Development Goals
SEZ	Special Economic Zones
SIDS	Small Island Developing States
SPOT	Satellite Pour l'Observation de la Terre (Satellite for Observation of Earth)

SSOP	Synergized Standard Operating Procedures
SST	Sea Surface Temperatures
TC	Typhoon Committee
TOPS	Terrestrial Observation and Prediction System
UCDP	Uppsala Conflict Data Program
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees
UNISDR	United Nations Office for Disaster Risk Reduction
UNU-EHS	United Nations University Institute for Environment and Human Security
VDC	Village Development Committee
WASH	Water, Sanitation and Hygiene
WCRP	World Climate Research Program
WDS	World Data Service
WFP	World Food Program
WHO	World Health Organization
WII	Weather Index Insurance
WMO	World Meteorological Organization
WRI	World Resource Institute