



## Goal 13: Climate Change

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## Overview

Emissions



Warming



Imbalance  
of nature

<https://www.un.org/sustainabledevelopment/climate-change/>



## Facts

Since the industrial revolution, average temperatures have raised by 1 degree Celsius

From 1901 to 2010, the global average sea level rose by 19 cm as oceans expanded due to warming and ice melted. The Arctic's sea ice extent has shrunk in every successive decade since 1979, with 1.07 million km<sup>2</sup> of ice loss every decade

Global emissions of carbon dioxide (CO<sub>2</sub>) have increased by almost 50 percent since 1990

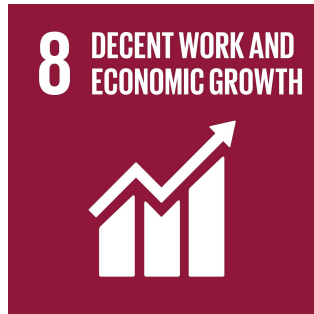
Emissions grew more quickly between 2000 and 2010 than in each of the three previous decades

<https://www.un.org/sustainabledevelopment/climate-change/>

# Directly Related SDG's

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Influences causation



This SDG assesses countries reactions to climate change more than the cause, but is related to nearly every SDG



## 13.1

### Target

- Strengthen **resilience** and adaptive capacity to **climate-related hazards and natural disasters** in all countries

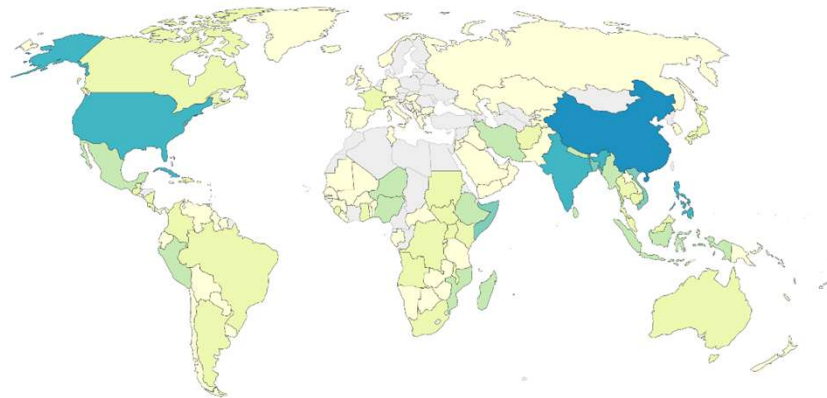
### Indicators

- Proportion of local governments that adopt and implement **local disaster risk reduction strategies** in line with national disaster risk reduction strategies
- **Number of deaths, missing persons and persons affected by disaster** per 100,000 people
- Number of countries with national and local disaster risk reduction strategies

<https://sustainabledevelopment.un.org/sdg13>

## Internally displaced persons from natural disasters, 2017

Internally displaced persons are defined as people or groups of people who have been forced or obliged to flee or to leave their homes or places of habitual residence, as a result of natural or human-made disasters and who have not crossed an international border.

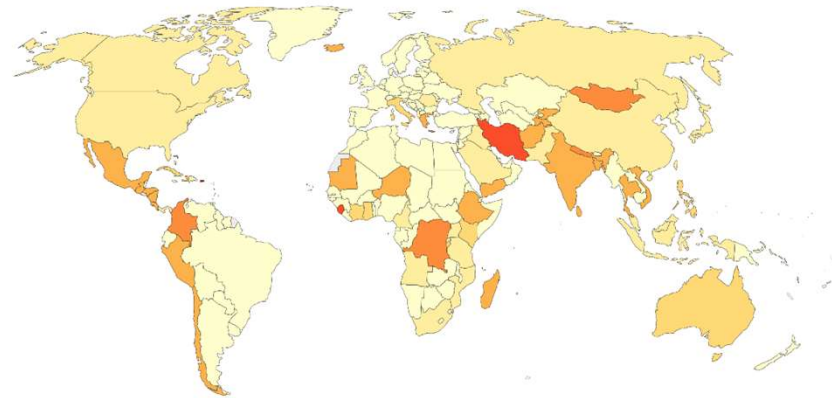


Source: World Bank

OurWorldInData.org/natural-disasters • CC BY

## Death rates from natural disasters, 2017

Number of deaths from all forms of natural disaster, measured per 100,000 individuals in any given year.



Source: IHME, Global Burden of Disease

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It is interesting that the deaths and displaced people were not in the same countries primarily in the same year. It seems it may be that the more developed countries had infrastructure and plans to keep people alive, but then many have to move.



## 13.2

### Target

- Integrate climate change measures into **national policies, strategies and planning**

### Indicators

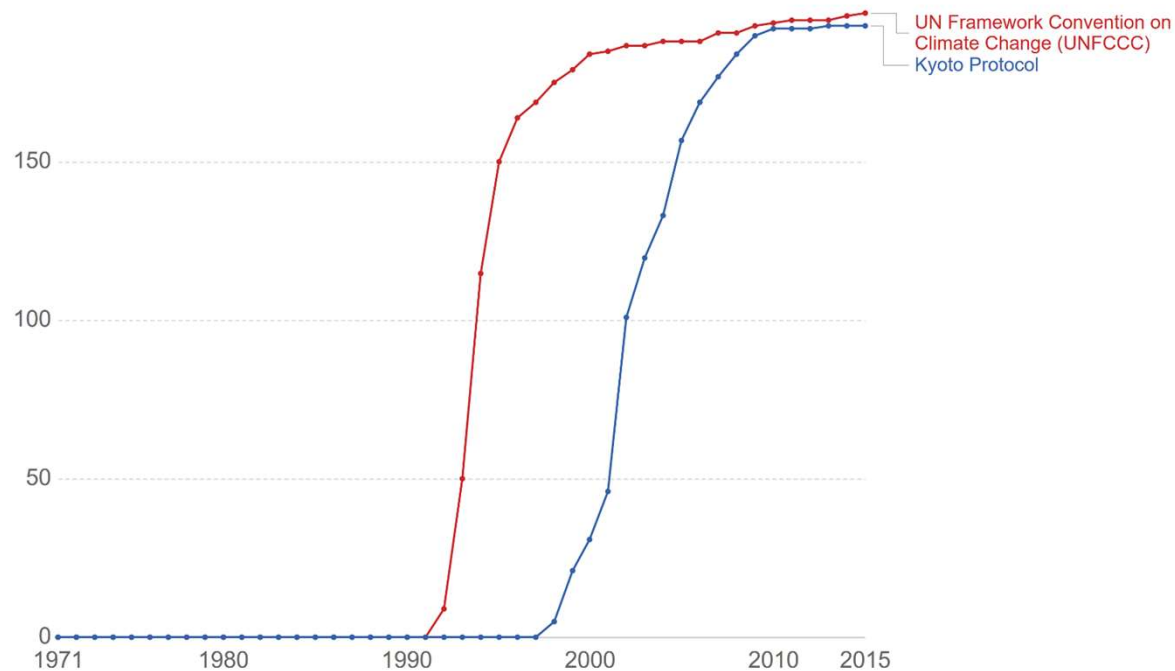
- Number of countries that have communicated the establishment or operationalization of an integrated **policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change**, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)

<https://sustainabledevelopment.un.org/sdg13>

## Number of parties in multilateral environmental agreements

Total number of global parties signed on to multilateral agreements designed to address trans-boundary environmental issues.

Our World  
in Data



Source: United Nations Conference on Trade and Development (UNCTAD)

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Many countries have signed on to plans for sustainability





## 13.3

### Target

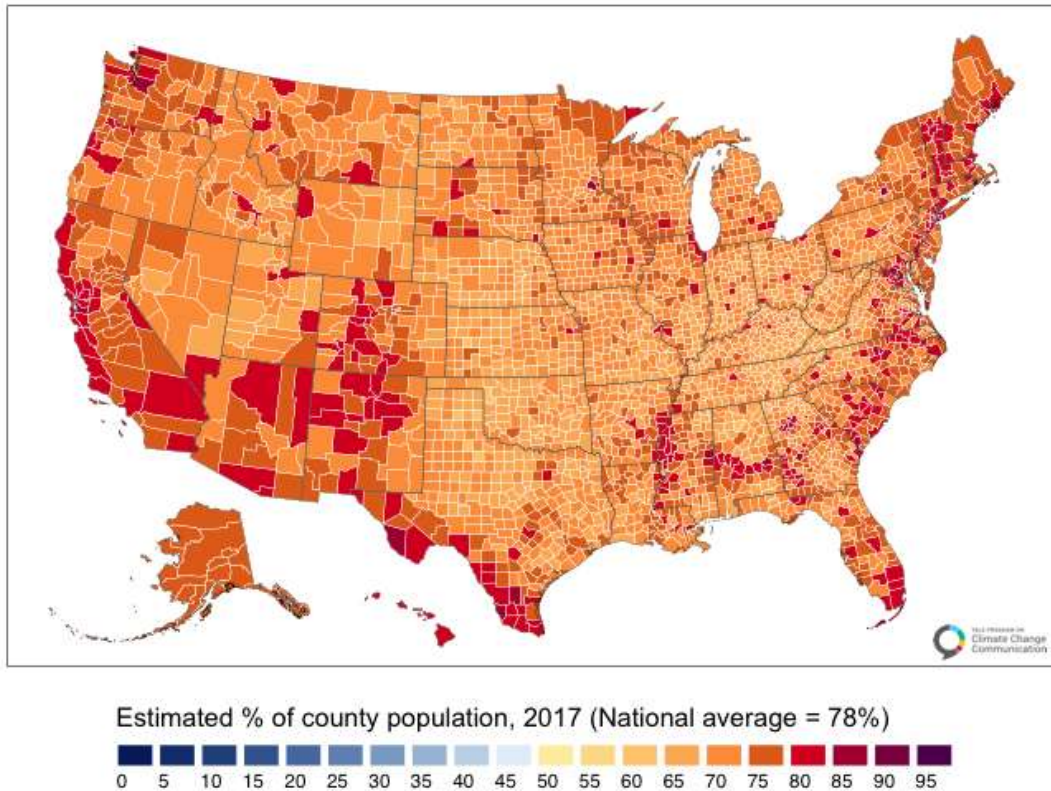
- Improve education, **awareness-raising** and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

### Indicators

- Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into **primary, secondary and tertiary curricula**
- Number of countries that have communicated the strengthening of institutional, systemic and individual **capacity-building** to implement adaptation, mitigation and technology transfer, and development actions

<https://sustainabledevelopment.un.org/sdg13>

Americans who believe schools should teach our children about global warming



In America the majority believe climate change should be taught





## 13.A

### Target

- Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly **\$100 billion annually by 2020 from all sources** to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the **Green Climate Fund** through its capitalization as soon as possible

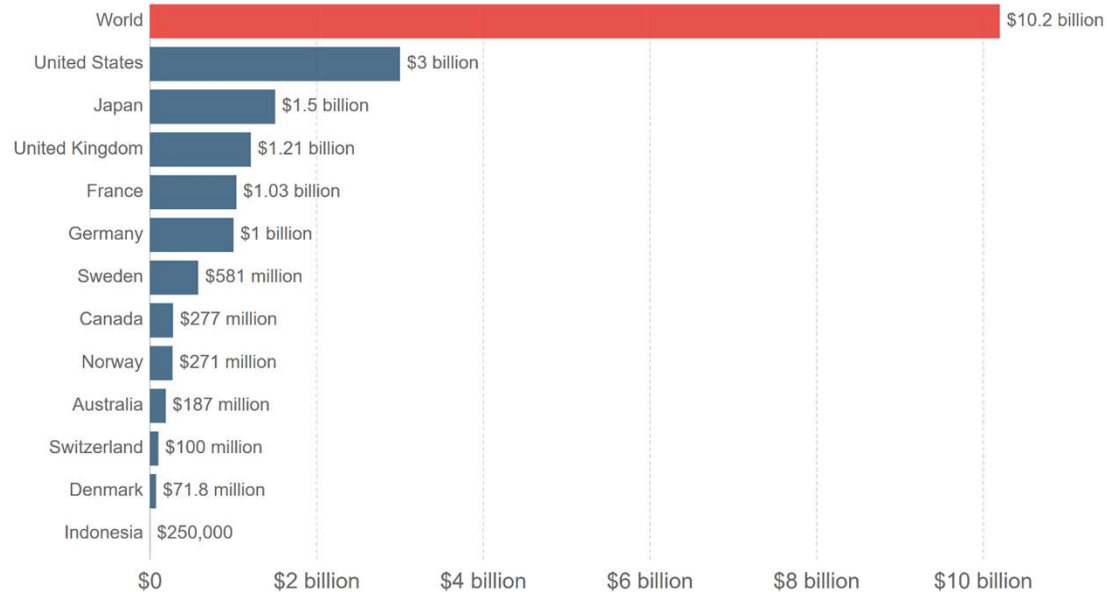
### Indicators

- **Mobilized amount** of United States dollars per year starting in 2020 accountable towards the \$100 billion commitment

<https://sustainabledevelopment.un.org/sdg13>

## Green Climate Fund (GCF) signed pledges, 2018

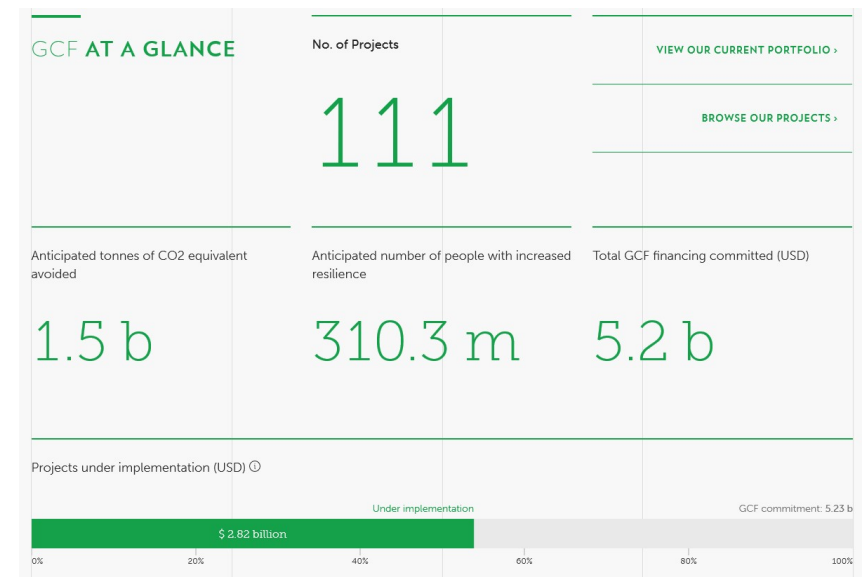
National signed pledges to the Green Climate Fund (GCF). The GCF is a global fund created to support lower-income countries in climate mitigation and adaptation. Figures represent the signed pledges of contributions to the GCF per year. Advanced economies formally agreed within the Paris Agreement to mobilize at least 100 billion US\$ per year by 2020.



Source: Green Climate Fund (2018)

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Money is being pledged for a fund that will support developing countries as the effects of climate change are felt, and to support the growth of developing nations with reduced greenhouse gas emissions. Low-emission and climate-resilient development





## 13.B

### Target

- Promote mechanisms for raising capacity for effective **climate change-related planning** and management in **least developed countries** and small island developing States, including focusing on women, youth and local and marginalized communities

### Indicators

- Number of least developed countries and small island developing States that are **receiving specialized support**, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and management, including focusing on women, youth and local and marginalized communities

<https://sustainabledevelopment.un.org/sdg13>

# Developing Nations Climate Change Plans

Many have created National Adaptation Plans

Progress varies most by how motivated the leadership of the country is, not stage of development

All share a focus on agriculture, but lack of attention on health, forestry, and fisheries

Many projects help farmers change agricultural practices, diversify livelihoods, promote sustainable landscape management, advance gender equality and improve access to climate information

There is a lack of monitoring and evaluation systems, to identify gaps for refinement

Country	Vulnerability*		Readiness**		Overall		
	World Rank	Score	World Rank	Score	World Rank	Score	Trend
Bangladesh	140	0.534	148	0.327	140	39.7	▲
India	118	0.473	122	0.377	120	45.2	▲
Nepal	128	0.495	115	0.393	122	44.9	▲
Pakistan	115	0.469	142	0.341	126	43.6	▲
Tajikistan	78	0.409	131	0.357	111	47.4	▲
Burkina Faso	145	0.555	155	0.319	148	38.2	▲
Ghana	124	0.484	102	0.442	108	47.9	▲
Mali	164	0.604	138	0.348	156	37.2	▲
Senegal	146	0.556	127	0.368	137	40.6	▲
Ethiopia	144	0.553	146	0.330	145	38.9	▲
Kenya	147	0.557	159	0.312	154	37.7	▲
Tanzania	143	0.550	144	0.353	139	40.1	▼
Uganda	156	0.573	159	0.312	160	36.9	=
Botswana	123	0.483	76	0.494	94	50.5	▲
Namibia	141	0.547	99	0.445	122	44.9	▲

<https://www.iisd.org/faq/adapting-to-climate-change/>



# Human Problem of Climate Change

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Prof Peter Singer of Princeton University in ethics- "If we are not acting, we are endangering everyone who is alive now and also future generations."

- A comparison of an individual failing to cut their emissions to an individual taking a bulldozer to the crops of a subsistence farmer in Africa. The greenhouse gases have the same effect.
- The gases aren't visible and the effect may be in the future, so people don't equate it, but the moral obligation does.

Professor Kelly Fielding of the University of Queensland in social psychology- "We look to others for guidance about how we should behave."

- We are not getting cues from friends, family, government, or business
- US poll in June found 69% of Americans want the government to take aggressive action on climate change but only a third would pay \$100 to make it happen

When people are overwhelmed- climate change isn't binary so every action has an impact and will make the world more livable to some degree



# Ted Talks

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Greta UN (4:30)- <https://www.youtube.com/watch?v=bW3IQ-ke43w>