



United Nations
Convention to Combat
Desertification



G20 GLOBAL
LAND INITIATIVE

Bhutan



Overview

Background

The Kingdom of Bhutan (Bhutan) is a landlocked country with an area of 38,394 km² located in South Asia and is bordered by China and India. It is a mountainous country in the Eastern Himalayan ecosystem with summits ranging from 160 meters (m) to over 7,000 m above sea level, abundant water resources, and a healthy primeval forest. The northern part of the country is characterized by snowcapped peaks of elevations above 7,300 m with abundant glaciers and alpine pastures. The country is bordered by mountains in the Tibet Autonomous Region, the Lesser Himalayas (Inner Himalayas), and Duars Plain along its southern border. Rivers flow southward and most join the Brahmaputra. The principal rivers flowing from west to east are the Toorsa, Wang, Sankosh, and Manas. Glacier area represented approximately 1.6% of the land cover of Bhutan in 2018. About 72.3% of the country is covered by forest and 13.8% of land is agricultural. As the youngest and highest mountain chain on earth, the Himalaya ecosystem is ecologically fragile and considered a biodiversity hotspot. Climate varies dramatically due to the country's topography and geographical location at the edge of the tropical circulation in the north and Asian monsoon circulation in the south.

The country's population was 763,092 in 2019, with an annual growth rate of 1.3%. Although much of the population is rural, the urban population is growing at a faster rate. Bhutan has a relatively young population with about 68% between the ages of 15-64, 26% younger than 15 and 6% above the age of 65. The country is considered a lower middle-income country by the World Bank. However, it is one of the fastest growing economies in the world, with hydropower making a

major contribution to growth. Bhutan instituted Gross National Happiness (GNH) as a development principle, with this index increasing from 0.743 in 2010 to 0.756 in 2015. In 2015, 8.4% of people were deeply happy, 35.0% extensively happy, 47.9% narrowly happy, and 8.8% unhappy. The country has a GDP of \$2.5 Billion (2019) with an annual growth rate of 5.5% and a GDP per capita of \$3,316.20 (2019), growing at 4.3%. The economy is primarily based on industry (41%) and services (42%), with a lesser contribution from agriculture (17%).

Employment in 2019 was concentrated in agriculture (55.8%) and services (34.1%), followed by industry (10.1%).

Bhutan is expected to graduate from its Least Developed Country (LDC) status in 2023.

The Government of Bhutan has gained international attention for its policies to address climate change.

Bhutan has also been a leader in its forest management and carbon sequestration efforts from its forests have helped the country maintain its carbon negative status.

Identified in the country's Nationally Determined Contribution (2016), the country's vulnerability to the impacts of climate change are primarily the fragile mountainous environment and dependence on agriculture and hydropower generation for economic development. In Bhutan, hydropower is an important revenue source for the government. Given the country's limited economic diversification, hydropower disruptions from climate change events and long-term trends can lead to outsized economic impacts. Bhutan is also exposed to hazards such as flash floods, including GLOFs, forest fires, storms, and landslides. Bhutan's Third National Communication to the UNFCCC (NC3) (2021) identifies the impacts of climate change on key sectors of Bhutan such as water, agriculture, energy (hydropower), human health, and glaciers. These risks

and increased exposures highlight the high degree of vulnerability of the country. Adaptation priorities consider the country's vulnerability to the impacts of climate change, particularly its fragile mountainous environment plus dependence on agriculture and

hydropower for economic development. Bhutan is also exposed to hazards such as flash floods, including glacial lake outburst floods (GLOFs), forest fires, storms, and landslides.

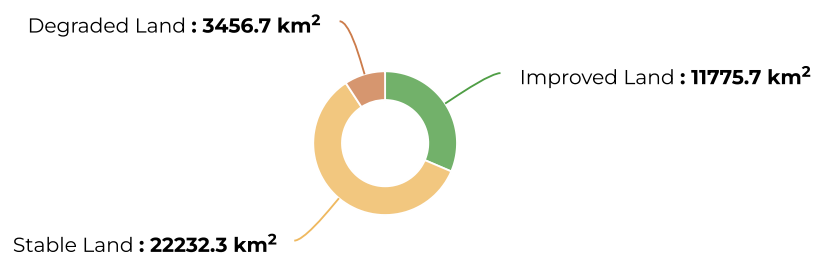
Credits: [World Bank](#)

Summary Chart



Current State

Land degradation between 2001 and 2015 - SDG 15.3.1 (km²)

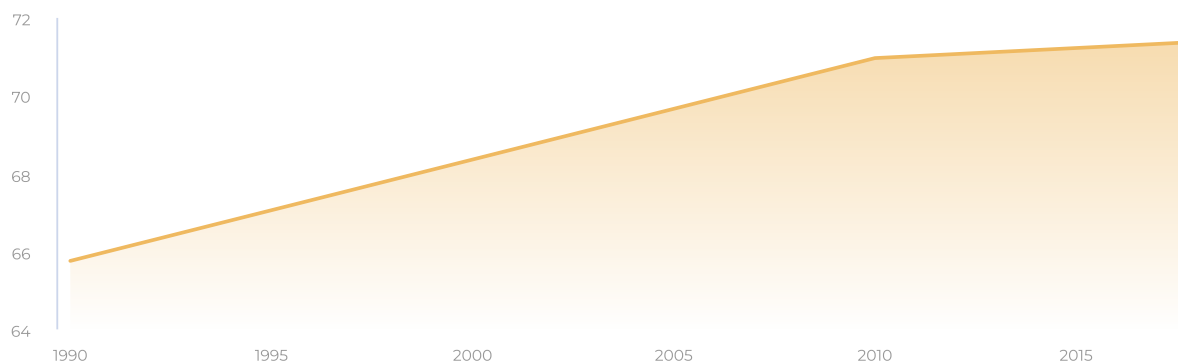


Credits: trends.earth

Forest area

71.5 % land

0.7 % change over last 10 years

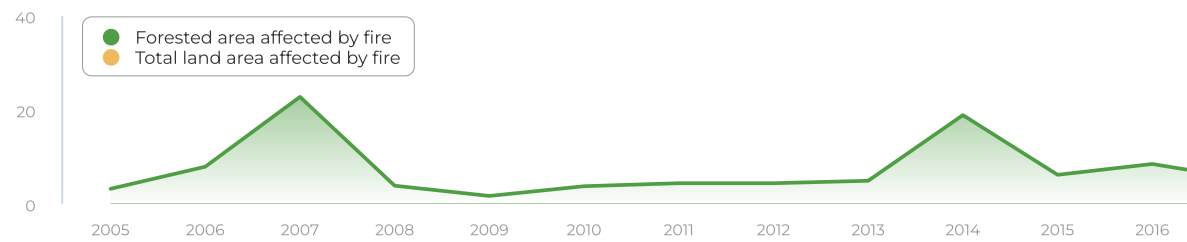


Credits: FAO



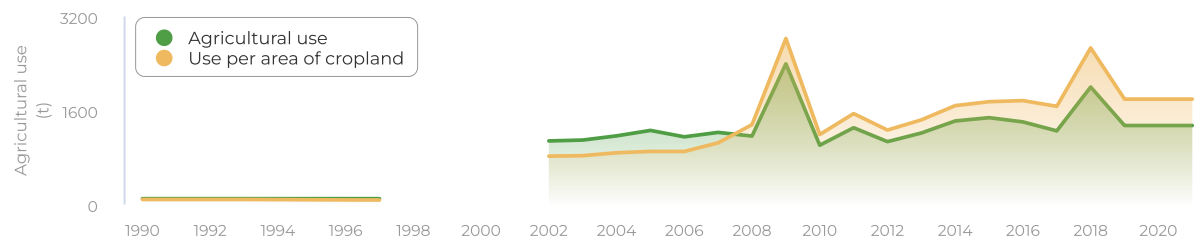
Stressors

Area affected by wildfires (kha)



Credits: FAO

Use of nutrients



Credits: FAO

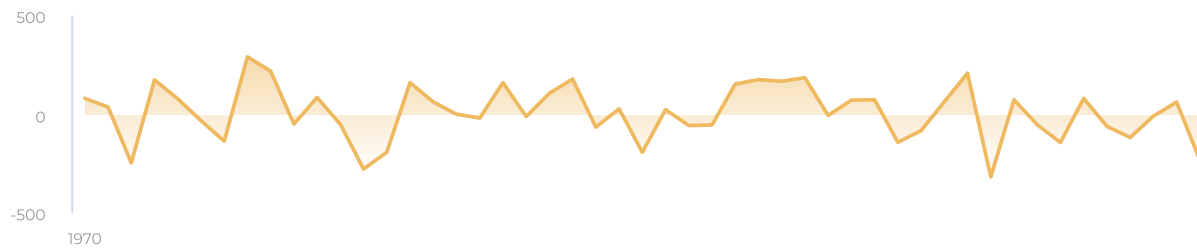
Trends

Annual temperature anomalies against 1901-1920 (°C)



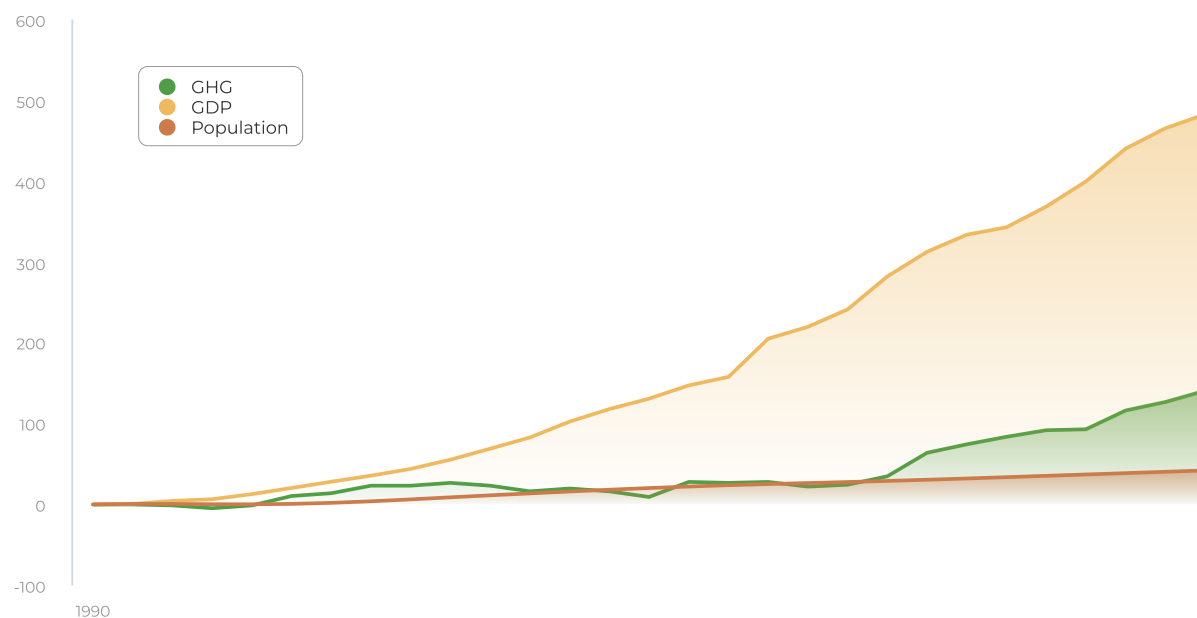
Credits: Climatic Research Unit (University of East Anglia) and Met Office

Annual precipitation anomalies against 1901-1920 (mm)

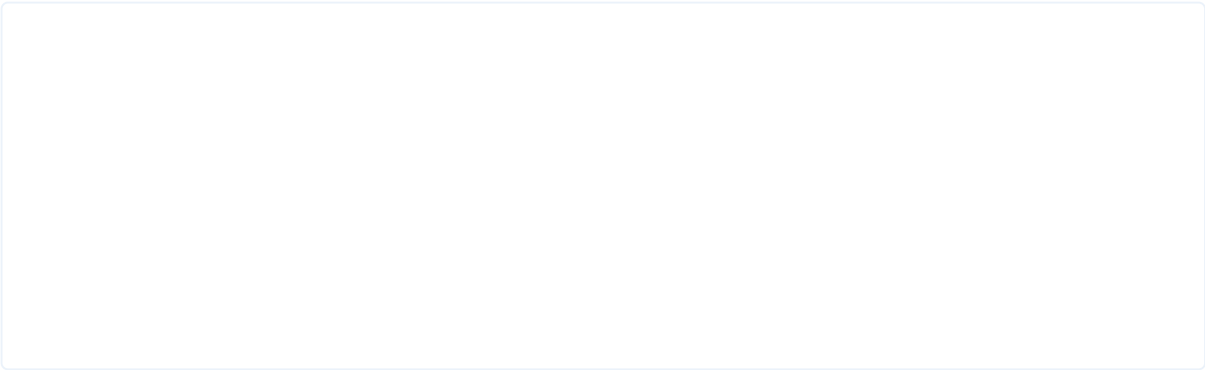
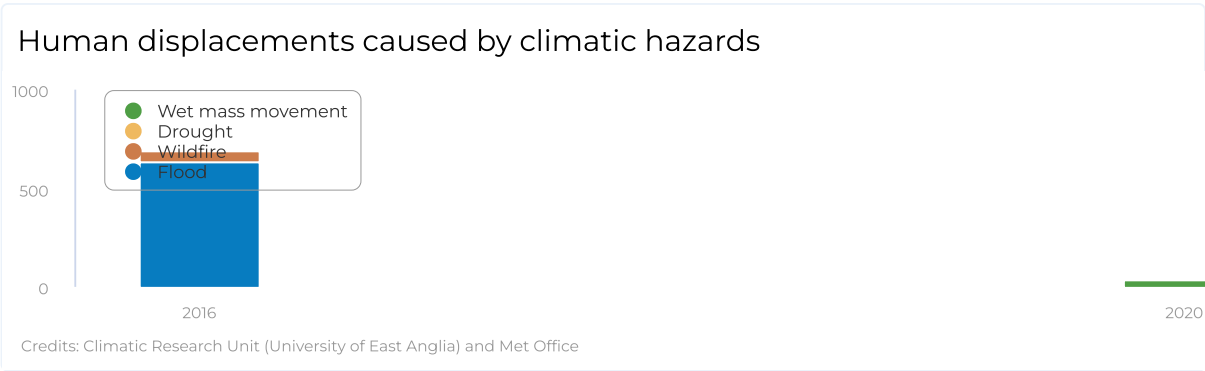


Credits: Climatic Research Unit (University of East Anglia) and Met Office

Population / Gross domestic product / Greenhouse Gases - change in % since 1990



↗ Impacts



💡 Solutions

Proportion of terrestrial protected areas

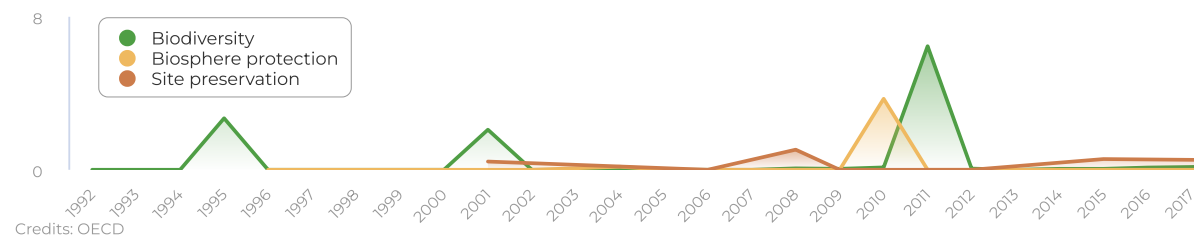
49.7 % of total land area

2024

Credits: UNEP-WCMC

Official Development Assistance flows

Biodiversity sector (million USD)



Commitments

6,300
hectares

LDN

Land Degradation Neutrality

0
hectares

NBSAP

National Biodiversity Strategies and Action Plans under the Convention on Biological Diversity

0
hectares

NDC

Nationally Determined Contributions embody efforts by each country to reduce national emissions and adapt to the impacts of climate change.

0
hectares

Bonn Challenge

Bring 150 million hectares of degraded and deforested landscapes into restoration by 2020 and 350 million hectares by 2030

Treaties

Treaty	Signature	Ratification	Party status
Paris Agreement	2016-04-22	2017-09-19	Ratification
Nagoya Protocol	2011-09-20	2013-09-30	Ratification
Ramsar Convention	2012-09-07	2012-05-07	Ratification
International Treaty on Plant Genetic Resources for Food and Agriculture	2002-06-10	2003-09-02	Ratification
United Nations Convention to Combat Desertification		2003-08-20	Accession
Basel Convention		2002-08-26	Accession
Cartagena Protocol		2002-08-26	Accession
Kyoto Protocol		2002-08-26	Accession
Convention on International Trade in Endangered Species of Wild Fauna and Flora	2002-11-13	2002-08-15	Ratification
Convention on Biological Diversity	1992-06-11	1995-08-25	Ratification
United Nations Framework Convention on Climate Change	1992-06-11	1995-08-25	Ratification

