



Climate and Cooperation Crisis in South Asia

This editorial is based on [“Floods in Pakistan bear similarities to those in India. It’s time for a collaborative mechanism to deal with extreme weather events”](#) which was published in Indian Express on 31/08/2022. It talks about the devastating flood in Pakistan and collaborative mechanism to deal with extreme weather events.

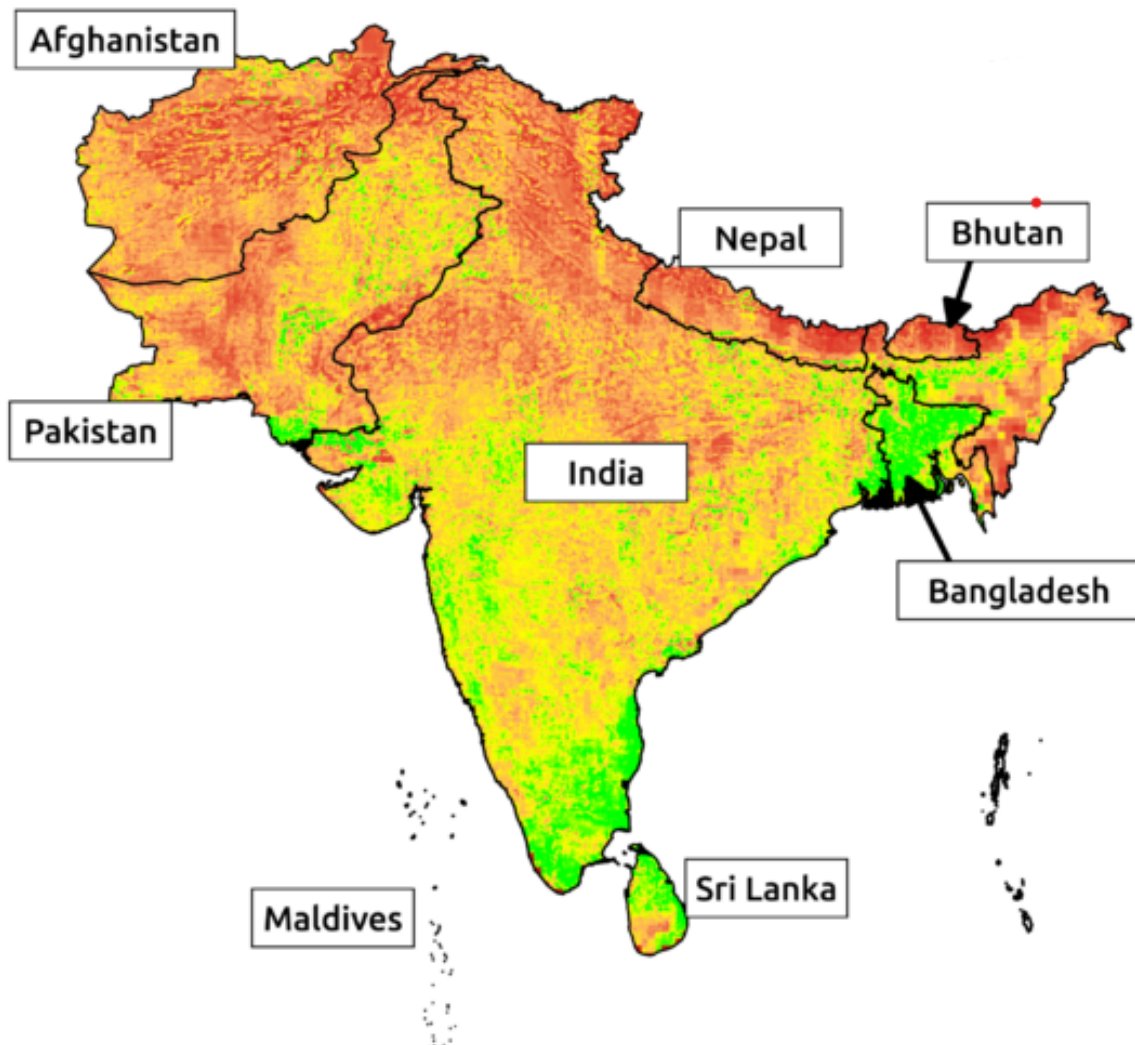
For Prelims: Climate Change, Flooding, Jet Stream Meandering, Asian Development Bank, Climate Catastrophe, South Asian Association for Regional Cooperation

For Mains: Reasons for the Climate Crisis in South Asia, Roadblocks to Regional Cooperation to Tackle the Climate Crisis in South Asia, Solutions for Regional Cooperation

South Asian is a **geographical as well as ethno-cultural entity consists** of the countries of **Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka**.

The mighty **Himalayas** in the North and the vast **Indian Ocean** in the South. The **Arabian Sea** to its West and the **Bay of Bengal** in East **provide a natural insularity to the region** covering climatic zones as diverse as its physical landscape.

Abnormal monsoon patterns induced by **climate change** has impacted South Asia in recent years including events like glacial lake outburst, forest fires, **mountain and coastal soil erosion** and most recently **flooding (Pakistan)** **presenting opportunities for cooperation among South Asian nations**.



What are the Reasons for the Climate Crisis in South Asia?

- **Rise in Temperature:** The **Indian Ocean** has seen an increase in sea surface temperatures (SST) of approximately 1°C (global average 0.7°C) in recent decades, a warmer atmosphere can hold more water vapour which has **increased humidity** and **higher rainfall in South Asia**.
 - Higher than normal rainfall also tends to occur during a La Nina event which results in an increased occurrence of floods in South Asia.
- **Heat Waves:** A prolonged and deadly heatwave has hit large swaths of India and Pakistan affecting hundreds of millions of people and sparking the glacial melting and glacial lake outburst events with food and energy shortage.
- **Jet Stream Meandering:** Jet streams are like rivers of wind high above in the atmosphere. These slim strips of strong winds have a huge influence on climate, as they can push air masses around and affect weather patterns.
 - Because of global warming, jet streams meander (curvy path), changing atmospheric circulation by mixing cold polar air with hot tropic air, causing **extreme weather events**.

How the Climate Crisis is Impacting South Asian Countries?

- **India:** Temperature rises on the **Tibetan Plateau** are causing **Himalayan glaciers** to retreat, threatening the flow rate of the Ganges, Brahmaputra, Yamuna and other major rivers.
 - **Heat waves' frequency** is increasing in India because of climate change.
 - Severe landslides and **floods** are projected to become increasingly common in such states as **Assam**.
- **Afghanistan:** Since 1950, **temperatures in Afghanistan have risen by 1.8°C** .
 - This leads and will lead to **massive droughts**. As a result of these increased droughts due to global warming, Afghanistan might face desertification and **land degradation** in the

upcoming future.

- **Bangladesh:** Bangladesh's vulnerability to climate change impacts is due to a combination of geographical factors, such as its **flat, low-lying, and delta-exposed topography** and socio-economic factors, including its high population density.
 - **Asian Development Bank** estimated that Bangladesh may experience a **2% GDP annual loss by 2050 because of climate change**.
- **Bhutan:** Tangible climate change has resulted in the warming and recession of many of **Bhutan's glaciers**, increasing the frequency and severity of **glacial lake outburst floods (GLOFs)**.
- **Maldives:** Many low-lying islands in the **Maldives** are **threatened by sea level rise**, with some predictions suggesting the nation will become **uninhabitable in the upcoming years if proper measures are not taken into account**.
- **Nepal:** Climate change is causing greater variations in weather patterns and more extreme weather events in Nepal, like the **drought that contributed to the exceptional number of wildfires** that raged across Nepal during **2016's pre-monsoon season**.
- **Pakistan:** In addition to increased heat, melting of glaciers in the Himalayas have impacted some of the **major rivers of Pakistan**.
 - Between 1999 and 2018, **Pakistan was ranked the 5th most affected country in terms of extreme climate caused by climate change**.
 - Currently Pakistan is facing a serious **climate catastrophe**, as **early monsoon rains have caused devastating floods in Pakistan**
- The ecological and climate continuities in South Asia make the case for **regional cooperation on climate-related matters compelling**.

What are the Roadblocks to Regional Cooperation to Tackle the Climate Crisis in South Asia?

- **Power Asymmetry and Geography:** The **smaller South Asian states tend to look outwards**, away from the region, to form a counterweight against India's dominance.
 - Also, In South Asia, all countries except Sri Lanka and Maldives share a common border with India. This geographical dependency affects these countries' internal and external decision-making capabilities
 - This becomes a **hard gap to fill when it comes to regional cooperation** over important issues like climate change.
- **Challenges of Geopolitics:** In recent years, geopolitics has undermined the very idea of South Asia.
 - **China's economic dominance** and new alliances in the region have exacerbated tensions between the neighbouring countries of **India, Pakistan, Bangladesh, and Nepal**. The **South Asian Association for Regional Cooperation** also seems to be at a crossroads.
- **Territorial Issues:** Since national borders are arbitrary, **climate change** is difficult to tackle. They are governed by politics and often neglect **ecological boundaries and corridors**.
 - **Diplomatic bitterness** has impacted regional cooperation to a large extent.
 - The rigid borders of South Asia, hastily established in the middle of the 20th century, are **ill-equipped to deal with the challenges of the 21st century**.

What Should be the Way Forward?

- **Optimum Utilisation of Resources:** Himalayan countries of **Afghanistan, Bhutan, India, Nepal, and Pakistan** have large, unutilised hydropower resources.
 - Collaboration on technologies and finances, and the development of a **common South Asian power market** can lead to increased **energy security** while reducing power costs and **greenhouse gas emission**.
 - India's lead on **solar power** can help other countries develop this renewable resource as a cheap and principal energy source.
- **Leading from the Front Opportunity for India:** India has the opportunity to act as the **Voice of South Asia in global forums** as well as provide timely humanitarian assistance to its neighbours as part of its **Neighbourhood First policy**.
 - In addition, India has a rich experience in developing economically productive and sustainable cities to share with other south Asian nations, including programmes like the

[Smart Cities Mission](#) and the [Atal Mission for Urban Transformation](#).

- **Learning from One Another:** Along with collective focus on innovation, **technology transfer, knowledge exchange**, and capacity building. There are existing initiatives that have lessons for all countries of South Asia to tackle climate change and grow as a unit.
 - It includes:
 - **Adaptation strategies of Bangladesh** (including its **Delta Plan 2100**)
 - **Sustainable Management of forests by Bhutan**
 - [Fisheries management by Bangladesh and India](#)
 - [Micro-hydropower in Nepal](#)
 - [Ecotourism in Maldives and Sri Lanka](#)
 - **Climate-smart agriculture in Bangladesh, India and Pakistan.**
 - Data sharing mechanisms on **river flows, flood alert systems, even a common renewable energy-dominated electricity grid**, could substantially reduce the climate vulnerability in South Asia.
- **Creation of South Asia Association for Regional Cooperation Climate Fund:** A South Asia Association for Regional Cooperation Climate Fund can be established by South Asian countries to help with adaptation and mitigation measures especially in **disaster-prone areas**.
- **The World Bank Group's South Asia Climate Roadmap:** The **South Asia Climate Roadmap** will support the development of **key cutting-edge analytical tools for climate-resilient planning** and development strategies in South Asia with key areas:
 - The Agriculture, Food, Water, and Land Systems Transition
 - The Energy and Transport Transition
 - The Urban Transition

Drishti Mains Question

Describe how abnormal monsoon patterns are exacerbating natural disasters and climate change impacts in South Asia. Discuss how South Asian nations can collaborate to mitigate them.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q.1 The term 'Intended Nationally Determined Contributions' is sometimes seen in the news in the context of (2016)

- (a) pledges made by the European countries to rehabilitate refugees from the war-affected Middle East
- (b) plan of action outlined by the countries of the world to combat climate change
- (c) capital contributed by the member countries in the establishment of Asian Infrastructure Investment Bank
- (d) plan of action outlined by the countries of the world regarding Sustainable Development Goals

Ans: (b)

Mains

Q.1 Describe the major outcomes of the 26th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC). What are the commitments made by India in this conference? (Answer in 250 words) (2021)

Q.2 'Climate Change' is a global problem. How will India be affected by climate change? How Himalayan and coastal states of India will be affected by climate change? (2017)

