



Climate Change Impact on Small Island Developing States

For Prelims: [COP27 \(2022\)](#), [New Loss And Damage Fund](#), [Climate Change](#), [Hurricane Maria](#), [Debt-To-Gdp Ratio](#), [COP29](#)

For Mains: Significance of Climate Financing in Helping Developing Nations.

Source: [DTE](#)

Why in News?

At [UNFCCC COP27 \(2022\)](#) in **Sharm El Sheikh**, a [new loss and damage fund](#) was created to help climate-vulnerable nations, particularly [Small Island Developing States \(SIDS\)](#).

- Despite the agreement, wealthier nations – the largest carbon emitters, have failed to fulfill their financial commitments, leaving many vulnerable countries without the necessary support.

Small Island Developing States (SIDS)

- **Small Island Developing States (SIDS)** refer to a group of small island nations and territories that face shared challenges in sustainable development, alongside significant social, economic, and environmental vulnerabilities.
 - Some of SIDS include the Maldives, Seychelles, Marshall Islands, Solomon Islands, Suriname, Mauritius, Papua New Guinea, Vanuatu, Guyana, and Singapore.
- SIDS are primarily located in three major geographical regions: the **Caribbean, the Pacific**, and the **Atlantic, Indian Ocean & South China Sea (AIS)** regions.
- At the [United Nations Conference on Environment and Development 1992](#), SIDS were formally recognized as a special case due to their unique environmental and developmental challenges.

How is Climate Change Affecting SIDS?

- **Increased Vulnerability of SIDS:** SIDS suffer 3-5 times more climate-related losses relative to government revenues compared to other countries.
 - Even wealthier SIDS, like **Barbados and the Bahamas**, face four times more loss than other high-income nations.
 - Projected losses from extreme weather will reach USD 75 billion annually by 2050 for SIDS, under a 2°C warming scenario.
- **Direct Impacts:** [Climate change](#)-induced extreme weather events cause significant damage to homes, infrastructure, and public services, as well as loss of life.
 - For instance, **Cyclone Winston** in 2016 caused extensive flooding in **Fiji**, resulting in the loss of 44 lives and significant economic disruptions.

- **Indirect Impacts:** Recovery costs and diverted resources lead to **slow economic recovery**, with sectors like **tourism** and **agriculture** severely impacted.
 - Economic growth is delayed or reversed, with increased recovery expenses and **reduced income generation**. For example, Fiji's GDP growth was reduced by 1.4% due to the 2016 cyclone.
 - Small island states face prolonged fiscal difficulties, as recovery costs **exacerbate national debt**. Dominica's recovery from **Hurricane Maria** has left it with 150% **debt-to-GDP ratio**.
- **Cost of Climate Change:** USD 141 billion in direct and indirect impacts on SIDS from 2000 to 2020, averaging USD 2,000 per person. However, some countries face even higher per capita costs (e.g., **Dominica** lost USD 20,000 per person after **Hurricane Maria**).
 - **38%** of the total losses are attributable to **climate change**, according to extreme event attribution studies.

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UNFCCC

Conference of Parties (COP)

- **Supreme decision-making body** of UNFCCC
- **Meets every year** (unless the Parties decide otherwise)

- Meets in **Bonn**, the Secretariat (**unless a Party offers to host the session**)
- First COP – held in **Berlin**, Germany (1995)

COPs and Their Major Outcomes

COP 3 (1997) Kyoto, Japan

Adopted Kyoto Protocol (legally binded developed countries to reduce emission targets)

COP 7 (2001) Marrakech, Morocco

Marrakech Accords signed (set stage for ratification of Kyoto Protocol)

COP 8 (2002) New Delhi, India

Delhi Declaration (development needs of the poorest countries)

COP 13 (2007) Bali, Indonesia

Bali Road Map and Bali action plan

COP 19 (2013) Warsaw, Poland

- Warsaw Framework for REDD Plus
- Warsaw International Mechanism for Loss and Damage

COP 18 (2012) Doha, Qatar

Doha Amendment to Kyoto Protocol (reducing GHG emissions by 18% compared to 1990 levels)

COP 16 (2010) Cancun, Mexico

- Cancun Agreements (assist developing nations in dealing with Climate Change)
- Estd: Green Climate Fund

COP 15 (2009) Copenhagen, Denmark

Developed countries pledged up to \$30 billion in fast-start finance (for 2010-12)

COP 21 (2015) Paris, France

- Paris Agreement (global temp. well below 2°C above pre-industrial times)
- Climate finance by rich countries (yearly \$100bn funding pledge)

COP 26 (2021) Glasgow, UK

- India announced Net Zero Targets 2070
- India called for "phase-down" of coal-based power
- Glasgow Breakthrough Agenda (by 41 countries + India)

COP 28 (2023) Dubai, UAE

- USD 700 mn pledged by UAE, Germany, UK, EU, & Japan for the **Loss & Damage Fund**
- Phase out fossil fuels to achieve net zero by 2050
- Reach 11,000 GW of RE by 2030
- 66 nations to cut cooling emissions by 68% by 2050
- Triple global nuclear energy capacity by 2050
- **India led Initiatives at COP 28:**
 - **Green Credit Initiative:** Issues credits for eco-friendly actions like planting on degraded lands
 - **LeadIT 2.0:** Supports fair industry transitions & low-carbon technology
 - **Global River Cities Alliance (GRCA):** Promotes sustainable river development & best practice sharing
 - **Quad Climate Working Group (QCWG):** Enhances local & regional sustainability efforts

COP 27 (2022) Sharm-el-Sheikh, Egypt

- Loss & Damage Fund
- USD 3.1bn plan for early warning systems
- G7-led 'Global Shield Financing Facility' for countries suffering climate disasters
- African Carbon Market Initiative
- Action for Water Adaptation and Resilience (AWARe) initiative
- Mangrove Alliance (in partnership with India)
- India's Long-Term Low Emission Development Strategy

COP 29
to be held in
Baku, Azerbaijan
in November,
2024



Drishti IAS

What are Major Initiatives Taken to Mitigate Impact on Small Island Developing States?

- **Alliance of Small Island States (AOSIS):** It is an intergovernmental organization that advocates for small island nations and influences international climate policy.
- **Barbados Programme of Action:** The **Barbados Programme of Action (1994)**, established at **UN Global Conference on the Sustainable Development of SIDS**, held at Barbados in 1994, addresses the specific vulnerabilities of SIDS to climate change, sea-level rise, and climate variability.
- **Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway:** **SAMOA Pathway**, adopted in 2014 at the **Third International Conference on Small Island Developing States**, aims to address the unique challenges faced by SIDS, supporting their development through international cooperation and climate action.
- **Coalition for Disaster Resilient Infrastructure (CDRI):** **CDRI** is a global partnership launched in 2019 under the leadership of the **Government of India** and with the support the **UN Office for Disaster Risk Reduction (UNDRR)** to boost infrastructure resilience to climate and disaster risks, promoting **sustainable development**.
- **Infrastructure Resilience Accelerator Fund (IRAF):** Founded with the backing of UNDP and UNDRR, with a particular emphasis on developing countries and SIDS, the **IRAF Fund** (USD 50 million) supports disaster resilience, focusing on developing countries and SIDS.
- **India's Assistance for SIDS:** Overall, India has committed a total of **USD 70 million** in **project aid**, along with **US\$ 350 million** in **concessional loans** and **credit lines** to **SIDS**, while these nations have made significant efforts towards **sustainable development**, especially in combating **climate change**.

Why do Developed Countries Need to Pay Up?

- **Financial Responsibility:** Wealthy, industrialized nations, which are the largest historical carbon emitters, bear the primary responsibility for financing climate change mitigation and adaptation in vulnerable countries.
- **Insufficient Current Funding:** Current financial pledges are not sufficient to address the scale of loss and damage already occurring, let alone prepare for future impacts.
 - The loss and damage fund needs billions more annually, especially for the most vulnerable countries like SIDS.
- **Urgency for a Marshall Plan-Scale Response:** Given the severity of impacts, the fund should be designed with the ambition and scale of a “**modern Marshall Plan**”, ensuring that affected nations have adequate resources to recover and adapt.
 - The **Marshall Plan** was a US-led initiative after World War II that provided extensive **economic aid** to help rebuild **Western Europe**, promoting **economic recovery, political stability, and long-term growth**.
- **Effective Fund Utilization:** The **loss and damage fund** should provide **budget support mechanisms**, ensure **rapid disbursement** for timely recovery in **agriculture** and **tourism**, and offer **concessional finance** to avoid increasing debt burdens.
- **Failure to Meet Climate Commitments:** Developed nations have a history of failing to meet climate finance targets and emissions reduction commitments.
 - **SIDS** are responsible for **less than 1%** of global greenhouse gas emissions but are among the most affected by climate change impacts
 - As climate impacts become more severe and frequent, future climate finance targets need to be sufficiently ambitious to match the scale of challenges **SIDS** face.
- **Induced Economic Loss (IELD) and the FRLD:** Indirect economic losses due to extreme weather events may have totaled **USD 107 billion** from 2000 to 2022, with **36%** attributable to climate change.
 - The **Fund for Responding to Loss and Damage (FRLD)** which aims to provide financial support to vulnerable nations, particularly **SIDS** and developing countries, to address climate change impacts like **loss, damage, and recovery**, should also address these indirect losses and ensure rapid recovery for vulnerable economies.
- **Growing Fiscal Stress:** The cumulative losses from both direct and indirect impacts could reach **USD 75.2 billion** annually by 2050 under a 2°C warming scenario.
 - Developed countries must step up their financial contributions, ensuring funds are available

to address both immediate impacts and long-term economic challenges in SIDS.

Conclusion

The **creation of the loss and damage fund** at UNFCCC COP27 marks a critical step in supporting **SIDS**. However, **wealthy nations** must fulfill their **financial commitments** to provide adequate resources for **climate resilience**, addressing both **direct and indirect impacts** of **climate change** on these vulnerable nations, ensuring their sustainable development.

Drishti Mains Question:

What are the key financial challenges faced by Small Island Developing States (SIDS) in responding to climate change? Discuss the role of international financing in supporting these countries.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims:

Q. “Momentum for Change: Climate Neutral Now” is an initiative launched by (2018)

- (a) The Intergovernmental Panel on Climate Change
- (b) The UNEP Secretariat
- (c) The UNFCCC Secretariat
- (d) The World Meteorological Organisation

Ans: (c)

Mains:

Q. ‘Climate change’ is a global problem. How India will be affected by climate change? How Himalayan and coastal states of India will be affected by climate change?