



# 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



## 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?