SAARC Disaster Management Centre (IU)

NEWS LETTER

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Content

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Director's Message

Dear Readers,

I am delighted to share with you the latest edition of the SDMC (IU) newsletter as we continue our unwavering commitment to fostering a culture of disaster resilience across SAARC Member States.

Over the past few months, we have been actively organizing impactful workshops to address critical challenges facing our communities. Looking ahead, our upcoming Virtual Workshop on 'Enhancing Sustainability & Resilience of Water Infrastructure for Disaster Risk Reduction & Management in South Asia' will focus on tackling the pressing risks associated with water infrastructure and disasters.

In this edition, we bring you key updates on significant events and developments, including 20 Years of IOC Tsunami – Reflecting on progress and lessons learned; 10 Years of the Sendai Framework – Assessing its impact on disaster risk reduction; Glimpses from COP 29 (Baku, Azerbaijan) – Key discussions and outcomes; Recent Disaster events in the SAARC Region – Insights on cyclones, floods, forest fires, and more.

We invite you to explore this edition and hope you find it both insightful and informative. Your continued support and engagement are invaluable as we work toward building a safer and more resilient future.

Thank you for being part of this journey.

Yours truly,

Dr. Rajiv Kumar Gupta,
Director, SAARC Disaster Management Centre (IU)

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Delegates from SAARC Member States participated in SDMC (IU)'s workshop on Building Resilient Cities: Strategies for Effective Flood Management

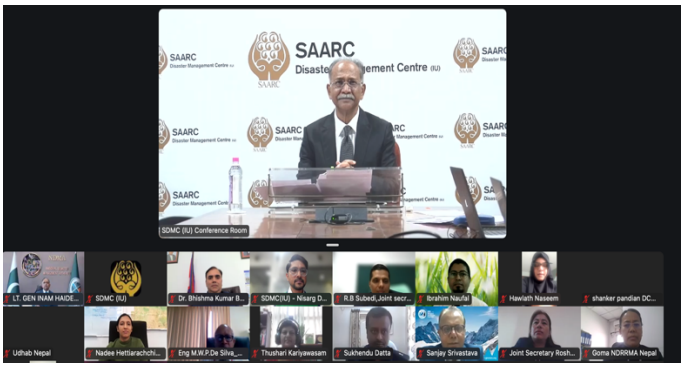


Figure 1. Dr. Rajiv Kumar Gupta, Director, SDMC (IU) addressed the delegates from the SAARC Member States during workshop on 27th January 2025.

SDMC (IU) successfully organized a virtual workshop on "Building Resilient Cities: Strategies for Effective Flood Management" from January 27-29, 2025. The workshop brought together 43 delegates from SAARC Member States, including India, Maldives, Nepal, Pakistan, and Sri Lanka. Participants represented key institutions such as National Disaster Management Authorities, Response Forces, Ministries of Home and Foreign Affairs, Local Government departments, and Urban Development & Housing agencies.

The three-day workshop featured technical sessions and case study discussions focused on effective flood management strategies. Experts from South Asia and beyond shared insights, highlighting innovative approaches to mitigating urban flood risks. On the final day, representatives from each participating country showcased their best practices, challenges, and adaptive solutions for managing urban flooding.

For access to technical session recordings and the full workshop report, visit the SDMC (IU) official website.

South Asian countries gasping in 2024: Glimpse of Cyclone Dana, Cyclone Remal, Cyclone Fengal and Cyclone Asna

As per WMO, Tropical cyclones represented 17% of weather-, climate- and water-related disasters and were responsible for one-third of both deaths (38%) and economic losses (38%) over the 50-year period. In 2024, four major tropical cyclones struck the Indian sub-continent namely Cyclone Remal, Fengal, Dana, and Asna.

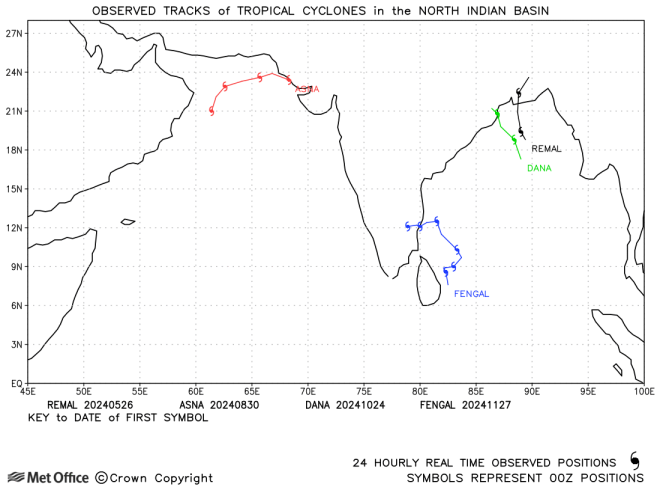


Figure 2 Cyclone Tracks in the North Indian Basin

Cyclone Remal, a severe cyclonic storm, affected the Sundarbans in parts of India and Bangladesh region in May 2024. In August, cyclone Asna had

caused torrential rains in the Kachchh district and adjoining parts of Pakistan. Since 1891, only three cyclonic storms have occurred in the Arabian Sea in August, with the most recent one before 2023 being in 1976. In October 2024, India and Bangladesh faced the severe cyclonic storm, Dana. The year ended with the Cyclonic storm Fengal. Due to the extreme weather conditions caused by Storm Fengal, rainfall exceeding 200 mm has been recorded in the Eastern, Northeastern, North Central, and Northern Provinces of Sri Lanka and parts of Tamil Nadu, India. Very strong winds, reaching speeds of up to 60 km/h, had caused damage to infrastructure, homes, and agricultural lands in these areas.

These cyclones underscore the importance of proactive disaster management measures including early warning systems, land use planning, hazard mapping, etc. Given the cyclone patterns in recent years, SAARC countries bordering the Arabian Sea and the Bay of Bengal must strengthen preparedness efforts to mitigate future risks.

20 years of the Indian Ocean Tsunami

On December 26, 2004, the Indian Ocean Tsunami struck 17 countries across Southeastern and Southern Asia, as well as Eastern and Southern Africa, causing unprecedented devastation to lives, property and infrastructure. It remains one of the deadliest disaster due to natural hazard in modern history.

Figure 3 An aerial view of the utter devastation of the Indonesian coast, between the towns of Banda Aceh and Meulaboh. Photograph taken one week after the 2004 Indian Ocean tsunami. Source: https://news.un.org/en/story/2024/12/1158556

The year 2024 marks 20 years since this catastrophic event. While significant progress has been made in scientific advancements, early warning systems, and multilateral collaborations, tsunamis continue to be low-frequency but high-intensity hazards, necessitating ongoing global efforts for preparedness and mitigation.

In response to the 2004 disaster, key institutions such as the Indian Ocean Tsunami Warning and Mitigation System (IOTWMS) and the Regional Integrated Multi-Hazard Early Warning System (RIMES) were established to enhance cross-border cooperation and disaster preparedness.

To further strengthen global awareness and action, the United Nations General Assembly designated November 5 as World Tsunami

Awareness Day in December 2015. This annual observance serves as a reminder of the continued need for preparedness, capacity-building, and resilience against tsunami threats.

As we reflect on the past two decades, it is essential to advance early warning technologies, improve community preparedness, and foster international cooperation to mitigate future tsunami risks.

Outcomes of COP 29 Baku Azerbaijan

The 29th UN Climate Change Conference (COP 29), held in Baku, Azerbaijan, resulted in significant agreements aimed at addressing climate change. A key outcome was the establishment of the New Collective Quantified Goal on Climate Finance, which sets a new framework for mobilizing global climate funding. Additionally, a Global Agreement on Carbon Market Framework was introduced to regulate and enhance international carbon trading, alongside the creation of a UN Trading System for Green Credits to support sustainable investments. The conference also extended the Lima Work Program on Gender and Climate Change for another 10 years, ensuring continued efforts toward gender-inclusive climate policies.

Climate finance and adaptation remain central to limiting global temperature rise to 1.5°C above pre-industrial levels. The UN climate process continues to be the primary platform for coordinating international climate action. The next conference, COP 30, will be held in Belém, Brazil, from November 10-21, 2025, with a focus on addressing financial gaps in climate mitigation and adaptation efforts.

Monsoon triggers Landslides, Floods in South Asian Member States

In 2024, record-breaking rainfall was observed in India, Nepal, and Bangladesh, surpassing historical precipitation levels and triggering multiple cascading risks and hazards. One of the most devastating consequences was a series of landslides in Wayanad, India, and Kathmandu Valley, Nepal. The Kerala State Disaster Management Authority (KSDMA) confirmed that the Wayanad landslide was the largest in India's recorded history, with research estimating that it triggered a debris flow of approximately six million cubic meters—enough to fill 2,400 Olympic-sized swimming pools.

Figure 4 Landslide at Chooralmala in Wayand District, Kerala India Source: The Hindu[1], 2024

According to the Global Water Monitor Report, the catastrophic event resulted in over 375 fatalities, 275 missing persons, and thousands of rescues. The Wayanad landslides were part of an increasing trend of landslide events across the Western Ghats, aligning with climate models that predict more frequent and intense rainfall due to global warming. In response, state and national governments implemented a range of disaster response and mitigation measures, addressing housing, infrastructure, psycho-social aid, and education. To enhance early warning systems (EWS), KSDMA launched "KaWaCHaM" (Kerala Warnings Crisis and Hazards Management System), an advanced disaster warning system that integrates alerts, sirens, and global weather models to strengthen early disaster preparedness and public safety.

In late September 2024, Nepal experienced exceptional late monsoon rainfall, leading to widespread flooding and landslides across the country. Several regions recorded their highest precipitation levels in over 50 years, making it one of the most extreme rainfall events in Nepal's recent history. While authorities issued nationwide alerts, the unprecedented deluge still resulted in severe destruction, claiming 244 lives.

Figure 5 Debris is seen in Kathmandu, Nepal, Monday, Sept. 30, 2024 in the aftermath of a flood caused by heavy rains | Photo Credit: AP

The disaster underscores the growing risks posed by climate change-driven extreme weather events, highlighting the urgent need for enhanced early warning systems, resilient infrastructure, and climate adaptation measures to mitigate future impacts.

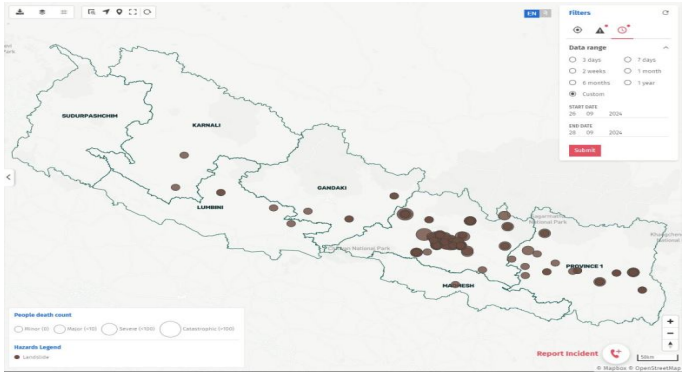


Figure 6 Landslide incidents in the Bipad Portal, an online Disaster Management system. Source: https://bipadportal.gov.np

[1] https://www.thehindu.com/news/national/kerala/wayanad-landslide-how-two-villages-vanished-overnight/article68506601.ece

Nepal Disaster Report 2024 alarms for wild fires

Figure 7 Forest Fires in Nepal dated in March 2025 Source: The Kathmandu Post

According to the Nepal Disaster Report 2024, the country has witnessed a sharp rise in certain hazards over the past six years (2018-2024), with 2,743 landslides and 19,593 fire incidents recorded among a total of 32,375 disaster events. Data from the National Disaster Risk Reduction and Management Authority (NDRRMA) indicates that alerts are regularly issued in affected districts, and local governments and fire services play a crucial role in responding to forest fires.

The increasing frequency of forest fires has raised significant concerns, particularly due to their impact on tourism, biodiversity, natural resources, and the economy. In response, authorities have issued early warnings and preparedness measures to mitigate further damage. However, addressing this growing threat requires stronger preparedness, enhanced capacity building in fire mitigation, and improved forest management. Moving forward, the key challenge lies in translating existing policies into effective action across all levels of government and stakeholders to strengthen disaster resilience in Nepal.

10 years of Sendai Framework

The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) was adopted on 18 March 2015 to address the increasing challenges brought by natural hazards and provide concrete actions to protect development gains from the risk of disasters. The Framework was adopted at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan, on March 18, 2015. There are four priority areas:

Priority 1: Understanding Disaster Risks

Priority 2: Strengthening Disaster Risk Governance to manage disaster risk

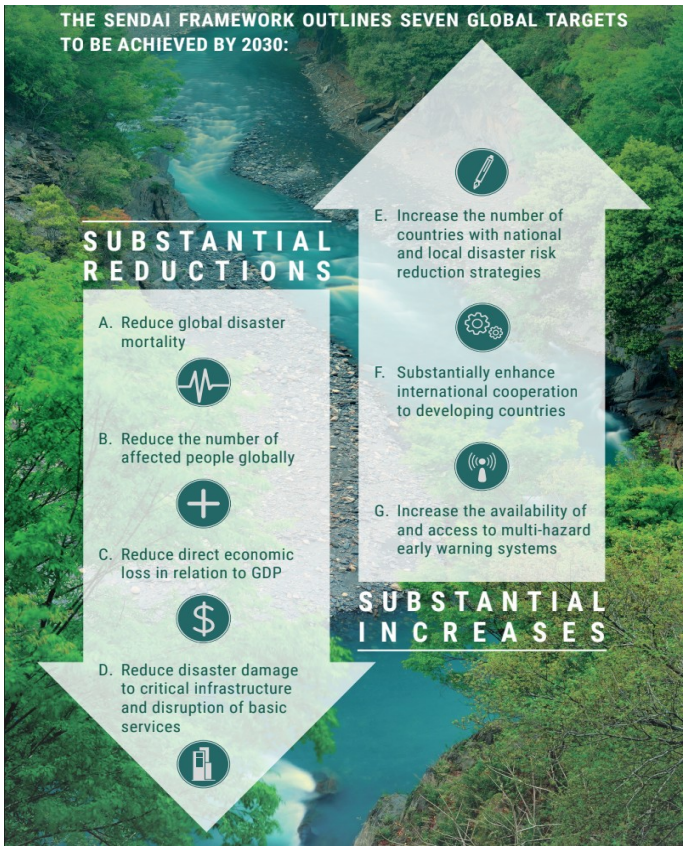
Priority 3: Investing disaster risk reduction for resilience

Priority 4: Enhancing disaster preparedness for effective response and to 'Build Back Better' in recovery, rehabilitation and reconstruction.

As per the UNDRR's Midterm[2] Review, there has been a substantial improvement in understanding the risks. However, after years of adoption of the document, we are slow and has not reached where we need to be. As 2030, nearby hope all the national and state

[2] UNDRR (2023). The Report of the Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030. UNDRR: Geneva, Switzerland.

government to course-correct, to achieve the expected outcome and goal of the Sendai Framework, and encourage risk-informed decision-making, investment and behaviour to 2030 and beyond.



Upcoming Training Workshop on Enhancing Sustainability & Resilience of Water Infrastructure for Disaster Risk Reduction & Management in South Asia

The SAARC Disaster Management Centre (IU) (SDMC-IU) is organizing a virtual workshop on "Enhancing Sustainability & Resilience of Water Infrastructure for Disaster Risk Reduction & Management in South Asia" from March 25-27, 2025. This initiative aims to address the pressing challenges posed by water-related disasters and their impact on critical

infrastructure across the region. Between 2010 and 2025, 95% of reported infrastructure losses in South Asia have been attributed to water-related disasters, leading to severe disruptions. The consequences have been far-reaching—as millions of people face reduced access to clean drinking water annually, while sanitation systems and irrigation infrastructure crucial for food security continue to suffer extensive damage. These setbacks have hindered progress toward SDG 6, with 29% of South Asians still lacking access to safely managed drinking water services and 45% without adequate sanitation in 2025. Additionally, the region faces a climate resilience finance gap of $50 billion annually, highlighting the urgent need for innovative financial solutions to strengthen water infrastructure.

This workshop will bring together policymakers, disaster management practitioners, water resource experts, etc. to discuss solutions. The program aims to foster knowledge sharing, enhance regional collaboration and advocate for innovative policies to build climate-resilient water infrastructure in South Asia.

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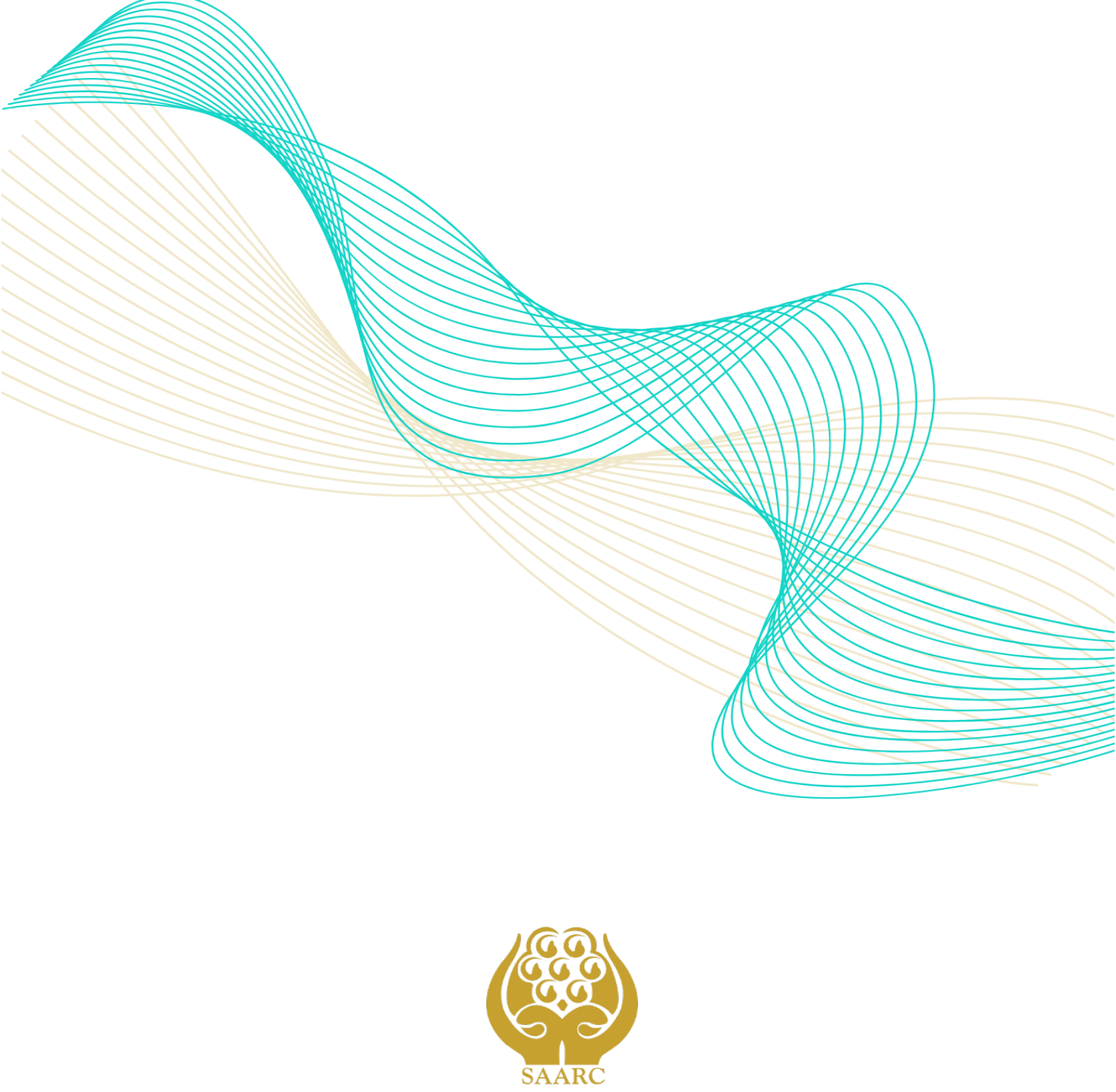

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For more information, visit https://saarc-sdmc.org/