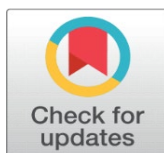
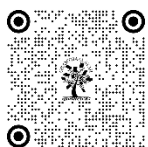


A CASE STUDY ON ANALYSING THE POTENTIAL OF SAARC FOR ENHANCING REGIONAL COOPERATION ON CLIMATE CHANGE

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ABSTRACT

The South Asian Association for Regional Cooperation (SAARC) has immense potential to drive regional collaboration in addressing climate change challenges. This study explores the role of SAARC as a platform for fostering cooperation among South Asian nations on climate change mitigation, adaptation, and sustainable development. With diverse ecosystems, high vulnerability, and shared socio-economic challenges, the region requires coordinated efforts to tackle climate impacts. The research examines the initiatives undertaken by SAARC, evaluates their effectiveness, and identifies opportunities for improvement. This case study underscores the need for policy harmonization, resource sharing, and capacity building to unlock SAARC's potential as a regional climate action leader.

Keywords: SAARC, Regional Cooperation, Climate Change, Mitigation, Adaptation, Sustainable Development, South Asia, Environmental Policy

1. INTRODUCTION

South Asia, home to over one-fifth of the global population, is one of the region's most vulnerable to the impacts of climate change. Rising sea levels, glacial melting, extreme weather events, and shifting agricultural patterns threaten livelihoods, economies, and ecosystems. The South Asian Association for Regional Cooperation (SAARC) was established in 1985 to promote regional cooperation and development. Although SAARC has addressed issues such as poverty, trade, and education, its potential in climate change mitigation and adaptation remains underexplored. This study delves into SAARC's initiatives on climate change and evaluates its role in fostering regional cooperation. The South Asian Association for Regional Cooperation (SAARC) encompasses eight countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka, which together represent a region of immense diversity and shared vulnerabilities. Established in 1985, SAARC aims to promote regional integration, foster economic and cultural development, and collectively address the challenges faced by member nations. Among these challenges, climate change has emerged as one of the most critical and far-reaching, affecting every sector of life in South Asia.

South Asia is one of the most climate-sensitive regions in the world. With its vast population, dense urban areas, coastal ecosystems, and dependence on agriculture, the region faces severe consequences from climate change. From

rising sea levels threatening the Maldives and coastal India to Himalayan glacier melt impacting water supplies in Nepal, Bhutan, and Pakistan, the region grapples with increasingly frequent and severe natural disasters such as cyclones, floods, and droughts. These changes not only strain ecosystems but also jeopardize livelihoods, particularly for vulnerable populations.

The role of SAARC in addressing climate change is crucial, as the transboundary nature of climate issues makes individual national efforts insufficient. Shared rivers, air pollution, biodiversity corridors, and weather patterns demand collaborative regional strategies. SAARC provides a unique platform for fostering collective action, promoting policy alignment, and enabling resource pooling among its member nations. However, political tensions, economic disparities, and limited institutional capacity often impede the realization of SAARC's full potential.

Climate change has far-reaching implications for economic growth, public health, food security, and water availability. While global frameworks such as the Paris Agreement have emphasized international cooperation, regional blocs like SAARC have a critical role in ensuring localized and context-specific implementation. In this regard, the effectiveness of SAARC's interventions remains a topic of scrutiny and debate.

The importance of this study lies in its potential to inform policymakers, stakeholders, and researchers about the strengths and limitations of regional cooperation through SAARC. It also underscores the need for a cohesive and unified strategy to combat climate change and mitigate its impacts in South Asia. This introduction sets the stage for a comprehensive exploration of SAARC's role in regional climate action and its significance for the sustainable development of South Asia.

1.1. NEED FOR THE STUDY

- 1) South Asia's shared vulnerability to climate change demands coordinated responses.
- 2) Understanding SAARC's role can help optimize its contribution to regional environmental sustainability.
- 3) Insights from this study can inform policymakers to strengthen regional frameworks.

1.2. AIMS AND OBJECTIVES

- **Aims:** To analyse SAARC's potential in enhancing regional cooperation for climate change mitigation and adaptation.
- **Objectives:**
 - 1) Examine SAARC's initiatives and policies on climate change.
 - 2) Assess the effectiveness of these initiatives in achieving regional climate goals.
 - 3) Identify challenges and opportunities in leveraging SAARC for climate action.

Hypothesis

SAARC, with its existing frameworks and resources, has the potential to emerge as a significant regional player in addressing climate change, provided member states strengthen cooperation and align their environmental policies.

2. RESEARCH METHODOLOGY

Secondary data from SAARC documents, environmental reports, and international organizations. Analysis of case studies and regional climate projects. Qualitative analysis of SAARC's initiatives. Comparative study of other regional cooperation models.

Current Trends in SAARC:

- 1) **Increased Focus on Climate Resilience:** Recent trends in SAARC countries show an increased focus on building climate resilience, especially in vulnerable sectors like agriculture, water resources, and infrastructure. Several countries, particularly India and Bangladesh, are prioritizing the development of climate-resilient agriculture techniques and improving water management systems to cope with the challenges of erratic monsoons, droughts, and floods.

- 2) **Shift Towards Renewable Energy:** There is a noticeable shift towards the adoption of renewable energy sources, such as solar, wind, and hydroelectric power, across SAARC countries. India, in particular, has set ambitious goals for solar energy expansion, which has sparked regional interest in renewable energy collaboration. The establishment of the International Solar Alliance (ISA) as a platform for cooperation has also led to more regional engagements in clean energy projects.
- 3) **Collaborative Disaster Risk Management:** Disaster risk management (DRM) is becoming a core focus of regional cooperation within SAARC. The devastating impacts of cyclones, floods, and droughts have prompted SAARC countries to collaborate more effectively in improving early warning systems, sharing disaster relief resources, and coordinating regional responses to natural disasters. Countries like Sri Lanka and the Maldives are working with neighboring states to improve their DRM strategies.
- 4) **Climate Financing Initiatives:** There is a growing trend in climate financing within SAARC countries. India, in particular, has been at the forefront of encouraging both national and international financing mechanisms for climate change mitigation and adaptation projects. Countries are increasingly exploring funding options from international climate finance bodies such as the Green Climate Fund (GCF), the Adaptation Fund, and the World Bank's climate funds. SAARC's involvement in accessing and managing climate finance is crucial to addressing regional challenges.
- 5) **Regional Climate Change Research Collaboration:** There is a growing trend toward collaborative climate change research and data sharing among SAARC countries. Universities, research institutions, and think tanks in the region are increasingly engaging in joint research projects, often supported by international organizations, to better understand the regional impacts of climate change. This includes climate modelling, vulnerability assessments, and the development of region-specific solutions.
- 6) **Focus on Climate Change Adaptation in Vulnerable Areas:** The current trend shows that more attention is being paid to climate adaptation strategies in vulnerable areas such as coastal regions, island nations (like the Maldives), and the Himalayan region. Countries like Bangladesh and Nepal have been particularly focused on developing climate adaptation strategies for rural populations who rely on agriculture and natural resources for their livelihoods. This trend also includes enhancing the capacity of local governments and communities to respond to climate impacts.
- 7) **Advancements in Regional Climate Policy Frameworks:** Recent trends reflect that there is increasing alignment of national climate policies with regional and global climate frameworks such as the Paris Agreement. Several SAARC nations have updated their nationally determined contributions (NDCs) to align with climate change goals. SAARC as an organization has also been involved in the development of the South Asia Regional Framework on Climate Change, which encourages cooperation and implementation of collective goals.
- 8) **Integration of Gender in Climate Change Policy:** Another important trend is the growing emphasis on integrating gender into climate change strategies and policies. SAARC countries are increasingly recognizing the differential impacts of climate change on women and marginalized groups. More initiatives are being launched to empower women in climate adaptation and decision-making processes, as they often bear the brunt of climate-related disasters and environmental changes.
- 9) **Use of Technology and Innovation for Climate Solutions:** There is a growing reliance on technological innovation to address climate change challenges in the SAARC region. The use of satellite technology for climate monitoring, GIS-based tools for vulnerability assessments, and mobile technologies for climate awareness and disaster early warning systems are becoming increasingly common. The role of digital platforms for climate data sharing and knowledge dissemination is also growing in the region.
- 10) **Private Sector Engagement in Climate Change:** The private sector in SAARC countries is increasingly recognizing the importance of climate change and is engaging more in corporate social responsibility (CSR) projects related to environmental sustainability. Indian companies, for example, are investing in clean energy technologies, waste management solutions, and water conservation efforts. There is also a trend of increasing public-private partnerships for the implementation of climate projects.
- 11) **Increasing Public Awareness and Engagement:** A significant trend across SAARC countries is the rising public awareness and engagement regarding climate change. Activism, particularly among youth and civil society groups, is growing, and demands for stronger government action on climate change are being voiced. Regional

campaigns, international summits, and media coverage on climate change are increasing public consciousness and pushing governments to take stronger action.

12) Strengthening Regional Institutions: To support regional cooperation on climate change, there is a focus on strengthening the institutional frameworks within SAARC. Efforts are being made to enhance the capacity of regional bodies such as the SAARC Environment Centre (SEC) and the SAARC Disaster Management Centre (SDMC), ensuring they are better equipped to coordinate and support climate change initiatives across the member states.

13) Focus on Water Resource Management: Given the water scarcity concerns in South Asia, especially in countries like India, Pakistan, and Afghanistan, there is an increasing trend toward collaborative water resource management. Countries are engaging in joint projects to improve river basin management, enhance groundwater recharge, and reduce transboundary water conflicts related to climate change. These trends suggest that there is growing recognition of the importance of regional cooperation on climate change in South Asia. Despite the challenges, the region is making strides toward addressing the multifaceted impacts of climate change and is leveraging collective actions for greater resilience. However, to enhance the impact of these trends, more collaboration, policy alignment, and concrete actions are needed across the region.

3. HISTORY

SAARC has a history of addressing environmental challenges, beginning with the 1997 Malé Declaration on Climate Change. Subsequent initiatives, such as the SAARC Environment Action Plan and the establishment of the SAARC Disaster Management Centre, underscore its commitment. However, progress has been sporadic, with varying levels of member engagement. The history of South Asian Association for Regional Cooperation (SAARC) and its involvement in climate change issues is intertwined with the region's development, environmental challenges, and the necessity for collective action. Climate change, being a global challenge, has progressively become an area of concern for SAARC countries due to the region's unique vulnerabilities. SAARC was established in 1985, and its primary aim was to promote regional cooperation in economic, cultural, and social development. However, over the decades, climate change and environmental degradation have become a focal point of regional collaboration under SAARC, owing to their cross-border nature and the profound implications for the region's economy, society, and future.

3.1. EARLY YEARS OF SAARC AND ENVIRONMENTAL CONCERNS

Initially, the focus of SAARC was largely on economic and social issues, such as trade, poverty alleviation, and development. Environmental issues, including climate change, were not prioritized in the early stages. However, the 1990s marked a turning point, as environmental concerns began to take precedence due to the increasing evidence of global environmental degradation, such as deforestation, pollution, and the loss of biodiversity in the region.

In 1992, the Earth Summit (United Nations Conference on Environment and Development - UNCED) held in Rio de Janeiro, Brazil, significantly influenced global environmental governance. The summit produced the Rio Declaration on Environment and Development and led to the establishment of the Framework Convention on Climate Change (UNFCCC). This brought climate change to the forefront as an issue of global importance. SAARC countries, aware of the risks posed by climate change to their vulnerable populations, began to engage more seriously with these global discussions and began addressing environmental challenges at the regional level.

3.2. SAARC'S FIRST STEPS TOWARDS CLIMATE CHANGE COOPERATION

In the late 1990s and early 2000s, SAARC recognized the urgency of addressing environmental issues and their direct impact on regional stability. In 1997, the SAARC Environment Ministers Meeting was held, which formally acknowledged the importance of environmental issues in the region's development. This meeting laid the foundation for collective action on climate change within SAARC. Subsequently, a series of regional dialogues were initiated to focus on environmental sustainability and climate change adaptation.

In 2006, SAARC launched the SAARC Action Plan for Environment as part of its effort to create a framework for regional cooperation in environmental management. The Action Plan emphasized sustainable development,

environmental protection, and mitigation of climate change risks. The plan also aimed to strengthen institutional frameworks for environmental cooperation among the member states.

3.3. SAARC'S COMMITMENT TO CLIMATE CHANGE AND SUSTAINABILITY

The early 2000s also witnessed increasing awareness of the social and economic implications of climate change. The region's heavy reliance on agriculture, particularly rain-fed farming, meant that changing weather patterns posed a direct threat to livelihoods. The devastating impacts of natural disasters, such as cyclones, floods, droughts, and heatwaves, underscored the need for collective action.

In 2008, the SAARC Environmental Ministers met to adopt the SAARC Environment Declaration, which acknowledged the pressing challenges posed by climate change, loss of biodiversity, and environmental degradation. This declaration called for concerted regional efforts to mitigate the effects of climate change through sustainable development and the promotion of low-carbon economies.

In the same year, SAARC also launched the SAARC Disaster Management Centre (SDMC) to address the impacts of natural disasters, which were increasingly exacerbated by climate change. This center played a critical role in disaster risk management and building regional cooperation in the face of climate-induced disasters.

The 2010s: Advancing Regional Climate Change Initiatives:

The 2010s marked an era of accelerated focus on climate change and sustainability. In 2010, SAARC held the SAARC Climate Change Initiative, which emphasized cooperation in addressing the impacts of climate change and its consequences on food security, water resources, and human health. The SAARC member states recognized the need for a regional strategy to adapt to climate change and build resilience, particularly in the agricultural and coastal sectors.

In 2012, the SAARC Development Fund (SDF) launched initiatives aimed at providing financial support to climate adaptation projects within the region. The funds were used to support climate change mitigation and adaptation projects, such as renewable energy development, sustainable farming practices, and water conservation projects.

Simultaneously, the SAARC Environment Ministers Meeting called for stronger commitments and practical implementation measures to tackle the region's environmental challenges. These included integrating climate change into national development plans and policies, improving cooperation on disaster risk reduction, and establishing regional mechanisms for climate financing.

In 2014, SAARC members adopted the SAARC Framework for Climate Change to facilitate cooperation on adaptation and mitigation strategies. This framework was designed to align with global climate governance efforts, particularly the Paris Agreement signed in 2015 under the UNFCCC.

3.4. SAARC AND THE PARIS AGREEMENT

The Paris Agreement, adopted in 2015, was a significant milestone in the global effort to combat climate change. South Asia, being one of the most vulnerable regions to the impacts of climate change, saw an alignment of regional and national policies with the Agreement. SAARC countries, including India, Pakistan, Bangladesh, Nepal, and others, pledged to contribute to global climate action through the implementation of nationally determined contributions (NDCs). These commitments, however, required significant financial, technical, and knowledge support, which SAARC aimed to address through regional collaboration.

India, a key player in SAARC, made substantial commitments to renewable energy generation and sustainable development under the Paris Agreement. Other countries, such as Bangladesh and Maldives, highlighted the need for adaptation strategies to protect their populations from sea-level rise and other climate-induced threats.

3.5. ONGOING CHALLENGES AND THE WAY FORWARD

Despite the progress made, the SAARC region continues to face significant challenges in fully implementing its climate change agenda. Political tensions among member countries, economic disparities, and regional conflicts often hamper deeper cooperation. Additionally, the need for adequate financing and technology transfer for climate projects remains a significant challenge. Moreover, the high vulnerability of the region's population, particularly in rural and coastal areas, continues to require urgent attention.

The SAARC Climate Change Center, established in 2015, is working toward addressing these issues through research, data collection, and capacity building. However, it is clear that for SAARC to effectively combat climate change, deeper and more sustained cooperation is required, with a focus on overcoming barriers such as political differences, resource constraints, and regional disparities in capacity. SAARC's role in addressing climate change has evolved significantly since its inception. From early recognition of environmental challenges to the establishment of regional frameworks for cooperation, SAARC has increasingly positioned itself as a critical platform for addressing climate change and environmental sustainability in South Asia. However, much remains to be done in terms of regional cooperation, financial support, and the implementation of effective climate adaptation strategies. The success of SAARC's climate initiatives will depend on the continued commitment of its member countries and the alignment of regional policies with global climate goals.

4. DISCUSSION

The analysis reveals that while SAARC has launched several climate-related initiatives, political disputes, and resource constraints limit their effectiveness. Lessons from regional cooperation models like ASEAN highlight the need for robust institutional mechanisms, stakeholder engagement, and consistent funding.

5. RESULTS

- SAARC has made progress in disaster resilience and knowledge sharing.
- Member states have yet to fully align their policies for regional benefit.
- Enhanced cooperation could lead to significant climate mitigation and adaptation gains.

6. CONCLUSION

SAARC holds significant promise as a platform for addressing climate change in South Asia. Strengthening its institutional capacity, fostering trust among members, and aligning policies are critical for realizing its potential. The South Asian Association for Regional Cooperation (SAARC), since its establishment in 1985, has witnessed significant evolution in terms of its role and influence on regional cooperation, particularly with respect to climate change and environmental sustainability. Initially focused on economic development, SAARC gradually expanded its scope to include environmental concerns, recognizing the growing challenges posed by global warming, rising sea levels, natural disasters, and resource depletion, all of which disproportionately affect the South Asian region.

The region, home to over a fifth of the world's population, is particularly vulnerable to climate change due to its geographical location, economic dependencies, and high levels of poverty. Climate change impacts such as erratic rainfall patterns, increased frequency and intensity of floods, droughts, cyclones, and extreme heat have become recurring phenomena, threatening agriculture, water resources, biodiversity, and human health. Consequently, regional cooperation became imperative for addressing these challenges, as climate change knows no borders and requires collective solutions.

SAARC's engagement with climate change began in earnest in the 1990s, following the Earth Summit and the establishment of the UN Framework Convention on Climate Change (UNFCCC). The establishment of the SAARC Environment Ministers Meeting in the 1990s and the later introduction of the SAARC Action Plan for Environment marked key milestones in recognizing climate change as a critical issue. These initiatives helped in setting the stage for regional cooperation on environmental challenges. Over the years, the association has formulated various frameworks, action plans, and strategies aimed at climate change adaptation, disaster risk reduction, and sustainable development. The SAARC Climate Change Initiative in 2010, the establishment of the SAARC Climate Change Center (SCCC) in 2015, and the launch of financial support mechanisms like the SAARC Development Fund (SDF) are some examples of the organization's growing commitment to tackling the issue of climate change.

While these steps were undoubtedly significant, the road to climate change mitigation and adaptation in South Asia remains fraught with challenges. One of the most prominent challenges continues to be the political and diplomatic tensions among member countries. The South Asian region has experienced several conflicts, and political dynamics often hinder the effective collaboration needed to address shared environmental issues. The lack of trust, conflicting

national priorities, and strategic rivalries have often prevented the SAARC from adopting a more unified approach to climate change and environmental sustainability. Furthermore, resource disparities between member states create an imbalance in the region's capacity to implement large-scale climate change projects and policies. Countries with limited economic resources struggle to allocate funds for environmental protection and climate adaptation measures, which affects the overall success of regional initiatives.

Additionally, the financial and technological gap between developed and developing countries presents a significant challenge for South Asia. Although the region has committed to various international frameworks like the Paris Agreement, the commitment to actualize climate action requires substantial funding and access to advanced technologies. Climate finance and technology transfer from developed countries remain slow, and the existing financial mechanisms within SAARC have not always been adequate to address the scale of investment required to tackle the challenges of climate change.

Regional collaboration, which lies at the heart of SAARC's mandate, continues to face hurdles due to these political, economic, and social challenges. However, there has been some progress, and there is an increasing recognition among SAARC member states that climate change is an existential issue that transcends national borders. As the scientific evidence regarding the impacts of global warming becomes more apparent, countries are beginning to understand the urgency of collective action to address these challenges. Initiatives like the SAARC Framework for Climate Change and the SAARC Disaster Management Centre provide essential platforms for knowledge exchange, capacity building, and policy coordination on climate action.

One of the more promising aspects of SAARC's climate efforts has been its focus on climate adaptation strategies, particularly in the agricultural sector, where the majority of the population in South Asia is directly impacted by climate-related events. The regional exchange of best practices and technologies, particularly in the areas of water management, renewable energy, and sustainable farming, has proven beneficial for some countries. The focus on community-based adaptation measures, like the promotion of climate-resilient agriculture and disaster risk reduction strategies, offers hope for building regional resilience to climate impacts.

Nevertheless, for SAARC to play a more substantial role in addressing climate change, the organization must overcome its internal challenges. Strengthening regional governance structures, enhancing cooperation on climate financing, improving data-sharing mechanisms, and integrating climate change concerns into national development plans will be crucial for achieving long-term climate goals. Furthermore, innovative solutions such as the promotion of green technologies, climate-smart infrastructure, and the establishment of region-wide climate adaptation funds could provide the necessary resources and tools for more effective climate action.

The 21st century presents a new paradigm for South Asian cooperation, where climate change and environmental sustainability will have to be at the center of policymaking. Despite the hurdles, the SAARC region has immense potential for regional collaboration, considering its shared history, culture, and environmental challenges. The success of future efforts will depend on the commitment of all member states to put aside geopolitical differences in favor of a unified approach to climate resilience. While SAARC has made notable strides in fostering regional cooperation on climate change, it is clear that a more robust and cooperative framework is necessary to deal with the growing and complex challenges of global warming. The future of SAARC's climate cooperation will hinge on a renewed commitment to diplomacy, the building of trust, and the effective mobilization of resources and technology. By strengthening regional partnerships and addressing common vulnerabilities, South Asia can better safeguard its future and contribute meaningfully to global climate goals.

7. SUGGESTIONS AND RECOMMENDATIONS

- 1) **Policy Harmonization:** Align national climate policies for regional impact.
- 2) **Capacity Building:** Enhance institutional and human resource capacities.
- 3) **Funding Mechanisms:** Establish a regional climate fund.
- 4) **Stakeholder Engagement:** Include civil society and private sector participation.
- 5) **Knowledge Sharing:** Develop a centralized database for climate research and solutions.

8. FUTURE SCOPE

- Comparative studies with other regional cooperation models.
- Exploration of SAARC's role in global climate negotiations.
- Analysis of member states' perspectives and contributions.

CONFLICT OF INTERESTS

None.

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None.

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