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Attaining SDG 13: Assessing Bangladesh Scenario

Segufta Hossain[1]

Abstract

Bangladesh has demonstrated a strong commitment to climate action by integrating climate priorities in national development planning. Despite several achievements, the country still faces increasing climate change induced threats, including floods, cyclones, extreme weather events, sea level rise, and salinity intrusion, which continuously hinder the country's sustainable development. These constraints are further exacerbated by limited access to global climate finance mechanisms, technological barriers, and insufficient capacity for mitigation and adaptation initiatives. Although Bangladesh has emerged as an example of climate adaptation among climate-vulnerable developing countries, achieving SDG 13 by 2030 depends largely on institutional strengthening, inclusive climate governance, mobilizing financial resources, enhanced international cooperation, and accelerated global climate action to protect vulnerable populations and support sustainable development. With the objective of assessing the current position of Bangladesh in achieving SDG 13, the study found that Bangladesh's progress toward SDG 13 reflects a mixed trajectory, marked by notable gains alongside persistent structural and financial challenges. Although highly susceptible to the impacts of climate change, the country has made significant achievements in climate adaptation, disaster risk reduction, and community-based resilience mechanisms. The primary focus for achieving SDG 13 in the country is to reduce disaster-related mortality, which has been achieved significantly through early warning systems, climate-resilient infrastructure, and coastal embankments.

Keywords: Sustainable development goals (SDGs), SDG 13, Climate Vulnerability, Climate action

JEL Classification: Q01, Q54, Q56

1. Introduction

Global warming and climate change are among the most significant challenges humanity faces now-a-days. Global warming is triggered by human activities, specifically fossil fuel burning, deforestation, and industrial developments, according to the Intergovernmental Panel on Climate Change. The average global temperature

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has already risen by approximately 1.1°C from the pre-industrial levels,[1] causing ecosystem disruption, rising sea levels, and more extreme weather patterns. Vulnerable groups, such as marginalized communities, small island developing states, and low-income nations, are disproportionately impacted by these changes.

The international community, as a whole, adopted the Sustainable Development Goals (SDGs) in 2015 as part of the United Nations (UN) 2030 Agenda for Sustainable Development. These goals are an urgent call for states to collaborate globally to eradicate poverty, inequality, and other forms of discrimination, enhance health and education, and promote economic growth by 2030 (Department of Economic and Social Affairs-a). SDG progress was sluggish even before the Covid-19 pandemic and other global crises, and overall progress has stalled since 2020 due to the consequences of Covid-19, economic disruptions and debt, intensified climate change impacts, environmental degradation, and geopolitical conflicts. According to the Sustainable Development Report 2025, based on the current pace of progress since the adoption of the SDGs in 2015, none of the 17 SDGs will be achieved by 2030 (Sustainable Development Report, 2025). António Guterres, Secretary-General of the UN, has commented "Unless we act now, the 2030 Agenda will become an epitaph for a world that might have been."

The current global context indicates that SDG 13 or "Climate Action", calls for immediate action to combat the effects of climate change. This goal is essential to the broader UN 2030 Agenda for Sustainable Development, which emphasizes on the necessity of international collaboration for addressing the interrelated problems of social and economic inequality and environmental degradation. SDG 13 is receiving increasing attention from governments, organizations, and the global community as global temperatures rise, frequent extreme weather events, and unprecedented ecological challenges continually disrupt the lives and livelihoods of people around the world.

By the end of the century, the Paris Agreement aimed to keep global warming well below 2°C, ideally to 1.5°C. Nevertheless, despite these commitments, progress toward these goals has been limited, and current estimates indicate that the world will warm by 2.7°C by 2100 (Climate Action Tracker, 2021). This underscores the urgency of addressing climate change and the importance of SDG 13 in mitigating its impacts. Since the United Nations Framework Convention on Climate Change (UNFCCC) established the framework for climate action, it is important that SDG 13 be aligned with the Paris Agreement.

Bangladesh remains at the forefront of global climate vulnerability due to the adverse impacts of climate change, including frequent floods, cyclones, sea-level

[1] In principle, 'pre-industrial levels' could refer to any period before the start of the Industrial Revolution. The IPCC Special Report on Global Warming of 1.5°C uses the reference period 1850–1900 to represent pre-industrial temperature. See for details, Intergovernmental Panel on Climate Change, 2018.

rise, saline intrusion, and erratic rainfall patterns. Being one of the most climate-vulnerable countries, Bangladesh is in dire need to achieve SDG 13. However, the existing climate induced risks and hazards have made achieving SDG 13 an essential development priority for the country. Despite minimal contribution to global warming and climate change, Bangladesh has demonstrated a strong commitment to achieve SDG 13 through proactive national policies, climate adaptation strategies, and investment in resilience-building at the community level. SDG 13 outlines a structured framework to safeguard people, agriculture, and infrastructure from the adverse impacts of climate change by strengthening resilience, securing financial support, and integrating climate adaptation into development plans. However, the intensifying impacts of climate change, along with financial and technological constraints, have hindered the effective implementation of SDG 13 in the country.

Against the above background, the article aims to assess the current position of Bangladesh in achieving SDG 13. The study seeks to answer the following questions: how far has Bangladesh progressed towards achieving SDG 13, and what impediments stand in the way of attaining it? To assess the SDG 13 scenario in Bangladesh, a qualitative research approach has been adopted to enable an in-depth exploration of climate action policies, institutional frameworks, and community-level responses. The study relied on Secondary data collected from various sources, including academic books, peer-reviewed journal articles, policy documents, institutional reports, and newspaper publications. Key Informant Interviews (KIIs) were conducted with policymakers, environmental experts, representatives of non-governmental organizations (NGOs), and community leaders who are directly involved in climate change adaptation and mitigation initiatives. KIIs provided rich, context-specific insights into the challenges, progress, and gaps in implementing SDG 13 targets, particularly in areas such as climate resilience planning, disaster preparedness, and integration of climate strategies into national development agendas. By corroborating these expert perspectives, the qualitative method enabled a comprehensive understanding of both structural and operational factors influencing the climate action scenario of Bangladesh, complementing secondary data sources and contributing to a comprehensive assessment of SDG 13 progress.

2. Sustainable Development Goals (SDGs): A Conceptual Understanding

In 2000, almost 200 countries signed the Millennium Declaration or Millennium Development Goals (MDGs), which was considered as the blueprint by all the states and leading development institutions. These goals were defined in eight key areas that needed to be achieved by 2015, including halving the rate of extreme poverty, preventing the spread of HIV/AIDS, promoting gender equality, and providing universal primary education (United Nations).

To adopt the post-2015 development agenda, UN member states convened a special summit during the 70th session of the United Nations General Assembly (UNGA) in September 2015. The declaration “Transforming Our World - the 2030 Agenda for Sustainable Development”, adopted at the end of this special summit, is

an unprecedented call to action for the improvement of people, the planet, prosperity, peace, and partnership (Woodbridge, 2015). The 2030 Agenda comprises of 169 specific targets and indicators along with 17 universally applicable, integrated sustainable development objectives to spur collaborative, transformative action on a global scale, which are officially known as the SDGs.

Figure 1: The 17 Sustainable development goals



Sources: United Nations, cited in Schramade (2017).

The 17 SDGs succeeded the MDGs, which, between 2000 and 2015, generated a worldwide effort to eradicate poverty in all its manifestations. However, the major difference between the SDGs and the MDGs is that the SDGs apply to all UN member states and are far more ambitious and comprehensive than the MDGs, which applied only to developing nations. SDG is an ambitious UN initiative aiming to "end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity". It highlights on the necessity of collaborative work and fostering public-private partnerships as well as giving continuity to the MDGs. The five pillars of the 2030 Agenda include people, planet, prosperity, peace, and partnerships, which form the foundation of the 17 SDGs. These five pillars or 5Ps demonstrate that the SDGs are not a collection of discrete objectives, but rather an interconnected framework in which the advancement of one 'P' needs to counterbalance and reinforce the advancement of another (UN Sustainable Development Group). The new goals highlight on the necessity of working collaboratively and fostering Public-Private Partnerships (PPPs) between government and private organizations. The SDGs focus on balancing the economic, social, and environmental dimensions of development, ensuring sustainable progress and benefits for everyone. The 17 SDGs are interrelated, meaning that achieving one goal can help achieve others, and obstacles in one area can impede progress in others. According to former UN Secretary-General, Ban Ki-moon, the 17 goals constitute a comprehensive, transforming, and unified agenda that indicates a momentous global turning point (Sustainable Development Goals-a). Figure 1 represents the 17 Sustainable Development Goals.

The available literatures have focused on the role of the public sector in understanding the current standpoints of organizations regarding the allocation of business and the achievement of the 2030 agenda targets. The public sector is working to achieve 111 of the 169 SDGs. Most targets have been partially addressed; full attainment is required to accelerate progress (Rahman, 2021). Studies have evaluated the development progress of Bangladesh with special reference to the role of non-state actors in six Goal areas, i.e. SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), SDG 13 (Climate Action), SDG 16 (Peace, Justice, and Strong Institutions) and SDG 17 (Partnerships for the Goals) and identified key partnership challenges and possible approaches for moving forward (Citizen's Platform for SDGs, Bangladesh, 2019). Scholars have also noted that although Bangladesh has begun implementing the SDGs by incorporating them into national development plans, several challenges impede their progress (Sultana et al., 2023). ESCAP has also highlighted the success of Bangladesh in achieving the SDGs, citing its status as the most active and committed country and its robust efforts to implement SDGs at the national and local levels. The study has highlighted the significant improvement of Bangladesh in the global SDG ranking (ESCAP).

Scholars have highlighted the role of SDG 13 in shaping the sustainable growth of Bangladesh and have recommended a concerted, climate-driven effort by all stakeholders to combat climate change (Islam, 2020). At the same time, the prospect of Bangladesh in implementing SDG 13 has been scrutinized, revealing that lack of financial aid, improper budget distribution, and weak legal frameworks are the biggest obstacles, prompting proposals to amend existing policies for sufficient funding and monitored CO2 emissions (Talukder, 2019). While making attempts to forecast the climate change indicators of Bangladesh, some scholars have used autoregressive integrated moving-average models and expectation-maximization algorithms. They found that anthropogenic climate change is raising the probabilities of natural disasters, which will eventually have significant consequences for Bangladesh. The study has also found that in the business-as-usual scenario,2 in 2030, Bangladesh's annual average temperatures will increase by 0.95 per cent year-on-year, greenhouse gas emissions will increase by 5.17 per cent year-on-year, and a total of 30,366,230 households will be affected by climate change (Khatun and Saadat, 2022). The importance of Voluntary National Reviews (VNRs) has been recognized as an integral part of the 2030 Agenda's follow-up and review process, noting that Bangladesh submitted two VNRs in July 2017 and July 2020, respectively (Khan, 2024).

Non-Government Organizations (NGOs) have published reports discussing their roles in achieving SDG 13. BRAC, in its report, highlighted the contribution of the organization to the SDGs, aligning with the strategic direction set by the government. BRAC contributes to three targets and one National Priority Target 32 (NPT 32) under SDG 13, and activities related to SDG 13 are implemented by the Climate Change Program, the Disaster Risk Management Program, and the Integrated Development Program. The study has revealed that the challenges related to climate change and disaster reduction are exacerbated by several factors for which community

awareness initiatives should be integrated into disaster risk reduction efforts (BRAC, 2023a). ActionAid Bangladesh has stated that the Civil Society Organizations (CSOs) of Bangladesh have been addressing climate change, disaster management, and resilience-building issues for decades. The results showed that 50 per cent of respondents work on adaptation-related issues, 15 per cent on mitigation actions, and approximately 31.6 per cent on both adaptation and mitigation. According to the study, CSOs require a common space to promote credible solutions for addressing SDG 13, the Paris Agreement, and the Sendai Framework for Disaster Risk Reduction (SFDRR) comprehensively (ActionAid Bangladesh, 2019).

The available literatures have revealed the current scenario of the performance of Bangladesh in attaining SDGs. Regarding SDG 13, there is a dearth of academic literature, and at the same time, the available literatures are also dated. This paper aims to address the gap by examining the current status of SDG 13 and identifying the barriers that hinder its achievement.

3. Why SDG 13?

Globally, the climate is changing much faster than anticipated. Climate change induced impacts are devastating and affect people in both developing and developed countries. Presently, every country on the planet is being impacted by climate change in several ways, and if nothing is done, things will only get worse in the coming days. The world has observed the negative impacts of climate change, including global temperature rise, glacial melting, sea level rise, and extreme flooding and drought, which displace millions of people, increase poverty and inequality, stifle economic growth, and even cause conflicts. According to the World Health Organization (WHO), an estimated 700 million people are at risk of displacement due to drought alone by 2030 (World Health Organization-a). The ten years between 2014 to 2023 have witnessed the ten warmest years in the 174-year record, with 2023 recording the highest temperature since global records began in 1850 at 1.18°C (2.12°F) (National Oceanic and Atmospheric Administration, 2024).

SDG 13 refers to ‘climate action’, which primarily urges immediate actions to combat climate change and its impacts. Acknowledging climate change as a global challenge, it calls for immediate, coordinated action by governments, corporations, communities, and individuals. SDG 13 plays a central role in achieving the SDGs, as climate change directly affects environmental sustainability, socio-economic development, and human well-being. Goals pertaining to poverty reduction, zero hunger, good health, and sustainable cities are affected by rising temperatures, extreme weather, rising sea levels, and environmental degradation, all of which threaten food security, access to water, public health, and economic security. In particular, SDG 13 serves as a cross-cutting objective that supports the implementation of other SDGs by promoting climate mitigation, adaptation, and resilience. All 16 of the other Goals of the 2030 Agenda are intrinsically linked to SDG 13. Recognizing this interdependence, SDG 13 calls for immediate action to combat climate change and its impacts while simultaneously reinforcing progress

across the broader SDG framework. Climate change intensifies extreme weather events, sea-level rise, droughts, floods, and ecosystem degradation, all of which threaten livelihoods, food security, water resources, and public health. As a result, the impacts of climate change directly hinder the achievement of multiple goals, including poverty reduction (SDG 1), zero hunger (SDG 2), good health and well-being (SDG 3), clean water and sanitation (SDG 6), and sustainable cities and communities (SDG 11). Climate-related risks also affect economic productivity, infrastructure resilience, and energy systems, thereby influencing progress toward affordable and clean energy (SDG 7) and decent work and economic growth (SDG 8). Binding treaties, like the Paris Agreement, the Kyoto Protocol, the Doha Amendment, and the UNFCCC, establish the link between SDG13 and the other SDGs and demonstrate pre-existing legal duties regarding SDG13 (Filho et al., 2023).

At the same time, effective climate action can generate co-benefits that accelerate the broader sustainable development agenda. Climate change actions can directly affect the SDGs, creating synergies and trade-offs that, in turn, influence material and physical well-being and human survival (Nerini et al., 2019). Policies promoting renewable energy, climate-resilient agriculture, ecosystem conservation, and sustainable urban planning contribute not only to emission reduction and climate adaptation but also to improved livelihoods, biodiversity protection, and social equity. In this regard, global frameworks such as the Paris Agreement reinforce the integration of climate commitments with sustainable development priorities by encouraging countries to align national climate policies with long-term development strategies. Therefore, climate action serves both as a dedicated global objective and as a cross-cutting enabler within the SDG framework. Achieving the SDGs by 2030 will depend significantly on the extent to which countries and international institutions can implement integrated climate policies that address environmental challenges while simultaneously advancing economic development and social inclusion.

Without effective climate policies and coordinated global efforts, development gains achieved in areas such as education, infrastructure, and economic growth may be undermined. Therefore, integrating climate action into national development strategies and international cooperation frameworks is essential for ensuring sustainable and inclusive progress toward the broader SDG agenda.

SDG 13 comprises of eight indicators and five targets that address measures to promote education, awareness-raising, and capacity-building on climate change; integrate climate change measures into national actions (13.2); and strengthen resilience and adaptive capacity to hazards and disasters (13.1). The two means of implementation focus on mobilization of funds (13.a) and the promotion of capacity raising for effective climate change related management and planning. Annex Table A1 presents the details of targets and indicators of SDG 13.

Figure 2: The central role of climate action in achieving the United Nations' sustainable development goals



Source: Filho et al., 2023.

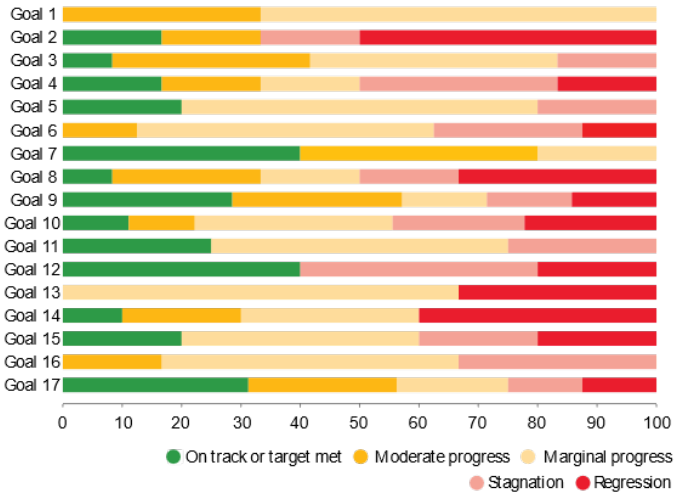
As per the Sustainable Development Goals Report 2023 (Special Edition), the level and scale of current climate action plans are insufficient, given the increasing frequency and intensity of extreme climate events (United Nations, 2023). The UN has published the Sustainable Development Goals Report 2024, which draws a blurred picture: the global failure to meet climate goals due to record greenhouse gas emissions, the need for trillions in climate finance to support national action plans, and historic-high fossil fuel subsidies (United Nations, 2024). To limit global warming to 1.5°C above pre-industrial levels, the IPCC has stressed on the need for substantial, rapid, and sustained reductions in greenhouse gas (GHG) emissions across all sectors. There is a major risk that the world may exceed 1.5°C by 2035 and could reach 2.5°C by 2100. Global emissions must be reduced by half by 2030, on the path to net-zero by 2050 (Sustainable Development Goals-b).

4. Sustainable Development Goals and SDG 13: The Global Scenario

Adopted in 2015, the SDGs constitute a comprehensive and universal development framework that aims to integrate economic development, social inclusion, and environmental sustainability under the principle of "leaving no one behind". As the goals are interconnected, the failure to achieve one goal affects the others. However, as the world approaches the 2030 deadline, progress is uneven, structural challenges are mounting, and uncertainty is growing regarding the worldwide implementation of the SDGs. There were moderate achievements in the early years of SDG adoption, particularly in poverty reduction, access to electricity,

maternal and child health, and the expansion of primary health care. Areas such as renewable energy technologies, gender equality, and climate action also gained positive momentum. However, these achievements have proven fragile, and the Covid-19 pandemic has been marked as a turning point which has reversed progress in poverty alleviation and widened inequalities across regions and social groups. The implementation gaps have been exacerbated by multiple intersecting challenges along with the pandemic. The widening financial gap has also hindered the progress toward the global SDGs, underscoring the inadequacy of current global financial mechanisms. Regional disparities further complicate the global landscape, as issues differ between developing and developed countries. However, globally, the SDGs remain at a critical juncture, and the pace of implementation is insufficient to meet the targets by the stipulated timeframe. Figure 3 presents the progress assessment of the 17 SDGs.

Figure 3: Progress assessment for the 17 goals based on assessed targets, 2025



Source: UNDESA, 2025.

The Sustainable Development Goals Report 2025 states that progress has been uneven, fragile, and, in many areas, too slow to meet the 2030 targets. Out of all SDG targets with available data, only around 35 per cent are either on track or showing moderate progress (UNDESA, 2025), while nearly half are progressing too slowly or making only marginal gains, and approximately 18 per cent have regressed compared with 2015 baseline levels (Willige, 2025), highlighting widening gaps in several priority areas. Substantial gains have been recorded in areas such as access to education, improvements in maternal and child health, expanded internet and energy access, and significant reductions in some infectious diseases. However, millions of people still face extreme poverty, hunger, lack of basic services, unequal access to opportunities, and persistent structural disadvantages for women, people with disabilities, and other marginalized groups. Escalating conflicts, climate change

impacts, rising debt levels, and dwindling official development assistance are among the key challenges which have slowed down progress. The report mentioned that although there are national and local success stories which demonstrate achievements in some of the goals, achieving the SDGs globally by 2030 will require urgent, coordinated action, sustained investment, enhanced data systems, and strengthened international cooperation, particularly in priority domains such as food systems, energy, digital transformation, education, jobs and social protection, and climate and biodiversity action.

Worldwide, SDG 13 reflects a mixed and largely insufficient record of success. Global warming and climate change-related issues, including climate awareness, the expansion of renewable energy capacity, national climate policies, and the mobilization of international climate frameworks, have made notable progress. However, issues such as rising greenhouse gas emissions, limiting global warming to 1.5°C, and climate finance commitments have fallen short of pledged targets, thereby increasing the vulnerabilities of climate vulnerable countries. The gap between commitments and implementation has been underscored by extreme weather events, sea-level rise, and climate induced displacement, which also undermine development gains and put SDG 13 and other environment related goals, such as SDG 14 (Life below water) and SDG 15 (Life on land), off track. Developing countries continue to face financial challenges, including rising debt burdens, limited access to international climate finance, and limited development assistance.

The success of SDG 13 in mainstreaming climate action discourse in the global climate agenda has been constrained by weak political will, uneven financial flows, technological inconsistencies, and a lack of strong enforcement mechanisms. The growing recognition of the adverse impacts of climate change has put the issue at the center of international policy and has influenced countries to adopt national climate plans in the form of Nationally Determined Contributions (NDCs)[3] under the Paris Agreement. A number of countries have strengthened their renewable energy capacity, committed to net-zero emissions, and enacted climate laws. Planning for climate adaptation has also become more prevalent, as reflected by a growing number of countries adopting disaster risk reduction plans and National Adaptation Plans (NAPs). However, these institutional development frameworks have not resulted in adequate positive outcomes. The credibility and effectiveness of SDG 13 are directly affected by climate justice and equity issues stemming from an imbalance of responsibilities and capabilities between developed and developing countries.

[3] Nationally determined contributions (NDCs) embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. The Paris Agreement (Article 4, paragraph 2) requires each Party to prepare, communicate and maintain successive NDCs that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

Table 1: Global progress and trends SDG 13 in 2025

SDG 13 Target	Key Indicator / Issue	Evidence (2023-2025)	Trend Assessment	Implication
13.1 Strengthen resilience and adaptive capacity to climate-related hazards	Disaster-related deaths and missing persons per 100,000 population	Declined from 1.61 (2005-2014) to 0.79 (2014-2023)	Improving	Progress in disaster risk management and early warning systems has reduced disaster-related mortality.
	Population affected by disasters	Increased from 1,158 per 100,000 (2005-2014) to 2,028 per 100,000 (2014-2023)	Worsening	Climate-related hazards are affecting far more people despite lower death rates.
	Countries with national disaster risk reduction strategies	131 countries in 2024, up from 57 in 2015	Strong progress	Growing institutional commitment to resilience and disaster preparedness.
13.2 Integrate climate change measures into policies and planning	Global temperature rise	2024 reached about 1.55 °C above pre-industrial levels, the hottest year recorded	Negative trend	Indicates accelerating climate change and increasing urgency for mitigation.
	Global greenhouse gas emissions	57.1 Gt CO_2-equivalent in 2023, a 1.3 % increase from 2022	Worsening	Emissions continue to rise rather than decline as required to meet climate targets.
	Emission reduction requirement	Must fall 7.5 % annually to 2035 for the 1.5 °C pathway	Off-track	Current policies are insufficient to meet the goals of the Paris Agreement.
13.a Climate finance mobilization	Global climate finance flows	Around US$ 1.3 trillion annually (2021-2022)	Increasing but insufficient	Investment is rising but still below levels needed for large-scale mitigation and adaptation.
	Adaptation finance	About US$ 63 billion annually, up 28%	Moderate progress	Adaptation funding is growing but remains inadequate for vulnerable countries.
13.b Capacity-building and climate awareness	Climate and sustainability content in education	Average "green curriculum index" score: 40/100 across countries	Slow progress	Climate education is not yet widely integrated into school curricula.
Cross-cutting trends	Fossil fuel subsidies	US$ 1.10 trillion in 2023, still nearly three times 2020 levels	Mixed progress	Reduction from 2022, but subsidies remain very high, hindering decarbonization.

Source: Author's compilation from UNDESA, 2025; United Nations Statistics Division, 2026

As per the Sustainable Development Goals Report 2025 of the UNDESA, climate challenges have accelerated, and adaptation and mitigation actions need to scale up, as current trends threaten SDG outcomes (Willige, 2025). Table 1 represents the status of SDG 13 in 2025.

The report shows that global warming reached record levels, with 2024 averaging 1.55 °C above pre-industrial values, underscoring the urgency of deep cuts in greenhouse gas emissions to stay within the Paris Agreement limits. The Disaster impacts show mixed outcomes, including fewer deaths per capita due to improved early warning systems and disaster risk reduction strategies, but more people are affected overall due to rising exposure and vulnerability to the adverse impacts of climate change. Climate education and awareness have improved but remain insufficient in many national curricula, indicating weak capacity for long-term climate focused behavioral change and planning. However, the number of countries adopting national disaster risk reduction strategies has more than doubled since 2015. Finally, Climate finance has grown significantly, especially for mitigation, but adaptation financing and total flows still fall short of what is required to achieve SDG 13 targets by 2030.

Globally, SDG 13 cannot be defined as either fully successful or an outright failure; rather, it can be characterized as a partially and insufficiently achieved goal. The goal has successfully categorized climate issues as a global priority, promoted institutional frameworks, and enhanced renewable energy transitions, but has failed to achieve its objectives on emission reduction and financial flows, which have hindered its progress.

5. SDG 13: Where Bangladesh Stands?

5.1 Global Climate Change and Increased Climate Vulnerability of Bangladesh

Bangladesh Global warming and climate change are continually increasing the vulnerability of Bangladesh in multifaceted ways. The country is becoming increasingly vulnerable, geographically, socially, and economically, to the adverse impacts of climate change. The low-lying deltaic landscape, high population density, and economic dependence on climate-sensitive sectors like agriculture have exacerbated the climate vulnerabilities more than in any other country in the world.

Two-thirds of the country remains below sea level by less than five meters, which is roughly sixteen feet. Approximately 10 per cent is above one meter (just over three feet). During the monsoon season, 70 per cent of the country is inundated annually, and about 80 per cent of the land is designated as a floodplain (Marlowe, 2021). Coastal flooding, salinity intrusion into agricultural lands and aquifers, and erosion of valuable land are caused by sea level rise, which displaces communities and damages infrastructure, homes, and agricultural fields. Cyclones, storm surges, heat waves, and heavy rainfall are examples of severe weather events that are becoming more frequent and intense due to global warming. Cyclones affecting the Bay of Bengal now cause greater damage, higher tides, and stronger winds than in the past, which weaken the resilience of coastal communities. Monsoon patterns have changed and become more erratic due to climate change, which is also affecting the river flows. Bangladesh, a flood-prone country, experiences annual flooding that affects infrastructure and agriculture. Climate change has made floods more extreme

and unpredictable. Average temperatures are rising across the country, leading to more severe extreme temperature events and heatwaves. Extreme weather events and changing climatic conditions are also reducing crop yields, further exacerbating agricultural disruptions and food insecurity. Climate change is also contributing to freshwater scarcity in drought-prone regions, including the northern and coastal southern regions. Vector-borne diseases[4] are also increasing and exacerbating public health challenges. The increasing frequency of natural disasters and the loss of land and livelihoods due to climate change are driving people to migrate from the disaster-prone areas to urban areas, placing stress on the urban environment, society, infrastructure, and amenities. Despite its minimal contribution to global warming and climate change, Bangladesh is bearing the brunt of severe climate impacts, which are increasing the climate vulnerabilities of the country and necessitating urgent adaptation and mitigation actions.

Bangladesh is considered as one of the most climate vulnerable countries in the world. The country ranked 7th among the most affected countries due to climate change, as per the Global Climate Risk Index (CRI) 2021, published by Germanwatch (Ministry of Environment, Forest and Climate Change, 2023). Bangladesh is disproportionately affected by climate change despite being responsible for less than 1 per cent (0.4%) of global greenhouse gas emissions. The location of the country has made it more susceptible to natural disasters. Sea level rise is a major concern for Bangladesh, and the Department of Environment, in a study, has illustrated that the average sea level rise in the coastal zone of Bangladesh is 3.8-5.8 mm/year, and approximately 12.34-17.95 per cent of the coastal areas will be submerged by this century (Ministry of Environment, Forest and Climate Change, 2023) which could displace an estimated 15-30 million people (ESCAP). The study has also revealed that there is a 5.8-9.1 per cent decline in rice production in the country due to sea level rise alone (Ministry of Environment, Forest and Climate Change, 2023).

5.2 Assessing SDG 13 in Bangladesh

Studies have appraised Bangladesh as highly active and committed to achieving the SDGs, and the country has enthusiastically embraced them and aligned them with its development agenda. According to the Sustainable Development Goals Report 2024, the country score of Bangladesh is 64.3, and the country ranks 107th among 167 countries (Sachs et al., 2024). The progress of the SDGs in Bangladesh is not as

[4] Vector-borne diseases are human illnesses caused by parasites, viruses and bacteria that are transmitted by vectors. Every year, there are more than 700,000 deaths from diseases such as malaria, dengue, schistosomiasis, human African trypanosomiasis, leishmaniasis, Chagas disease, yellow fever, Japanese encephalitis and onchocerciasis. Climate change substantially affects pathogens (parasites, viruses and bacteria), vectors, and reservoir hosts, with implications for the transmission of many vector-borne diseases. Several vectors have expanded their latitude and altitude ranges, and the length of the season during which they are active is increasing. These trends are expected to persist as the climate continues to warm. For more details, World Health Organization-b.

grim as the UNESCAP SDG Gateway indicates, as the country has performed well on 31 per cent of the 248 indicators (UNDP Bangladesh, 2024). Bangladesh submitted the 1st Voluntary National Review (VNR)[5] in 2017 which reviewed Goals 1, 2, 3, 5, 9, 14, and 17, and the 2nd one reviewed all 17 Goals and was submitted in July 2020 (Khan, 2024). Bangladesh officially submitted its 3rd VNR at the UN High-Level Political Forum (HLPF) on 20 July 2025, titled "Bangladesh Voluntary National Review 2025," which covers the progress, challenges, and lessons learned regarding the 2030 Agenda for Sustainable Development of the country especially following the impacts of the Covid pandemic and geopolitical tensions, following its previous submissions in 2017 and 2020. The 2025 report has focused on localizing the SDGs and a "whole-of-society" approach to development (General Economic Division, 2025).

Under the instructions of the SDG Working Committee, a set of 39 indicators has been established to ensure that Bangladesh meets the SDGs, leaving no one behind, in the shortest possible time (SDG Tracker). Some indicators under these headings are drawn from the global SDGs, while others have been modified to reflect the Bangladeshi perspective. SDG 13 emphasizes on the importance of taking urgent actions to combat climate change and its consequences. The vulnerability of Bangladesh to the impacts of climate change has necessitated a long-standing focus on disaster risk reduction well before the adoption of the SDGs. Now, the country has been considered as an example and role model for disaster management. Former Secretary-General of the UN Ban Ki-moon noted that Bangladesh is a role model, demonstrating that even a developing country can implement numerous trend-setting climate initiatives with courage and foresight (General Economics Division, 2020b). For SDG 13, Bangladesh has prioritized indicator 13.1.1, which is 'reduce the number of deaths, missing persons, and directly affected persons attributed to disasters to 1500 per 100,000 population', categorized as NPT 32 (SDG Tracker).

5.2.1 Achievements and measurable outcomes of SDG 13 in Bangladesh

Bangladesh has made significant progress toward achieving SDG 13 despite being one of the most climate vulnerable countries in the world. Through robust early warning systems, cyclone shelters, and community-based preparedness programs, the nation has improved disaster risk reduction, resulting in a notable decrease in climate-related mortality and the number of affected populations. National policies and planning frameworks, like the NAP and the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), have incorporated climate change considerations, and both formal and informal learning systems have incorporated climate education and awareness programs. Adaptation and resilience-building initiatives have benefited from access to international climate finances, and

[5] Voluntary National Review (VNR) is a process through which countries analyze their progress and challenges in implementing the SDG 2030. For more details, United Nations High-Level Political Forum on Sustainable Development.

institutional capacity for climate planning has been steadily increasing. The proactive approach of Bangladesh to climate governance and adaptation demonstrates measurable progress towards achieving the SDG 13 objectives, providing a model for other least developed and climate vulnerable countries, despite ongoing challenges in data availability, local government engagement, and long-term greenhouse gas emission reduction.

The Five-Year Plans (FYPs) of the country have also integrated the SDGs. In the 7th FYP, for SDG 13, the integrated issues or development targets have included integrating environmental, climate change, and disaster risk reduction considerations into project design, budgetary allocations, and the implementation process, as well as establishing a 500-metre-wide green belt along the coast (Munir, 2019). In the 8th FYP, the target has been set at 2000 persons per 100,000 population, based on the performance indicator - the number of deaths, missing persons, and directly affected persons attributed to disasters per 100,000 population.[6] Over the years, the number of deaths, missing persons, and directly affected persons attributed to disasters per 100,000 population has reduced. According to Bangladesh Disaster-related Statistics (BDRS 2021), the number of deaths, missing persons, injured, sick, and directly affected persons per 100,000 population attributed to disasters decreased from 12,881 in 2015 to 3765.80 in 2021 (Bangladesh Bureau of Statistics, 2022). The Government has also approved the Disaster Risk Reduction Strategies of Bangladesh (2016-2020), aligning with the SFDRR 2015-2030, and has ratified other international protocols (General Economics Division, 2020b). To address climate changes, the government has prepared several strategies. The Bangladesh Delta Plan (BDP) 2100, a long-term, integrated techno-economic mega plan approved by the government on 04 September 2018, focuses on securing the future of water resources and mitigating the potential impacts of climate change and natural disasters (General Economics Division, 2022). The Mujib Climate Prosperity Plan (MCPP) was also prepared to counteract climate induced damage and losses by preparing vulnerable communities, industry, and the government, and it shifted Bangladesh's trajectory from vulnerability to resilience to prosperity (VRP) (Ministry of Environment, Forest and Climate Change, 2022). To achieve the targets of SDG 13, Bangladesh has made significant progress across a range of indicators, implemented key policy reforms, and developed action plans and implementation strategies. This puts Bangladesh on track to achieve its goal, although financing remains a challenge to its efforts to mitigate the effects of climate change (BRAC, 2023b).

Bangladesh has made notable advances in climate adaptation policies, disaster risk reduction, and climate governance despite its high climate vulnerability. The achievements of SDG 13 in Bangladesh have been summarized in Table 3, organized by its major targets and national implementation progress.

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[6] For this indicator, the baseline year was 2015 statistics of Bangladesh Disaster-related Statistics (BDRS) and Bangladesh Bureau of Statistics (BBS) which was 12,881 persons per 100,000 people. General Economics Division, 2020a.

Table 2: SDG 13 achievements of Bangladesh by targets

SDG 13 Target	Key Achievements in Bangladesh
Target 13.1 – Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters	Bangladesh has significantly improved its disaster management systems, including cyclone early warning systems, cyclone shelters, and community-based disaster preparedness programs. The country has implemented national disaster risk reduction strategies aligned with the Sendai Framework, helping reduce mortality from climate-related disasters over time.
Target 13.2 – Integrate climate change measures into national policies, strategies and planning	Climate change has been integrated into national development frameworks through policies such as the BCCSAP, NAP, and NDCs under global climate agreements. These policies embed climate considerations into national planning and development strategies.
Target 13.3 – Improve education, awareness and institutional capacity on climate change	Climate change awareness and education have been incorporated into national education curricula and training programs. Government agencies, NGOs, and research institutions conduct capacity-building initiatives on climate adaptation, disaster preparedness, and environmental sustainability.
Target 13.a – Mobilize climate finance for developing countries	Bangladesh has accessed international climate finance through mechanisms such as the Green Climate Fund and other development partnerships, supporting projects related to coastal protection, climate-resilient infrastructure, and adaptation initiatives.
Target 13.b – Strengthen climate planning and management capacity in least developed countries	Bangladesh has strengthened institutional capacity for climate governance by establishing national climate funds, climate-focused ministries, and community-based adaptation programs, particularly supporting vulnerable coastal and rural populations.

Source: Compiled by the author from SDG tracker and BDRS 2021.

In general, the proactive policy measures and disaster risk reduction strategies in climate governance of Bangladesh have been recognized worldwide. According to global assessments, the country has made significant progress on SDG 13 through enhanced disaster preparedness, integrated climate policies, and international climate cooperation. The most important trends in achieving SDG 13 demonstrate that the disaster-related mortality rate remains relatively low because of improved early warning systems and cyclone shelters. Through national policies like updated climate strategies and adaptation plans, the nation has institutionalized climate action. Local government involvement in disaster risk reduction initiatives is expanding, despite limited monitoring of data. During the SDG implementation phase, there has been a notable growth in climate finance and adaptation programs. Bangladesh has made substantial progress on SDG 13 by integrating climate change measures into national strategies and policy frameworks, like NDCs, adaptation plans, and enhanced institutional knowledge and disaster-resilience strategies. However, the nation still faces significant economic and social costs and is extremely vulnerable to the negative effects of climate change. Measurable progress on SDG 13 targets, like reducing climate impacts or mobilizing international financial arrangements, remains far short of that required to achieve full attainment by 2030.

5.2.2 Constraints and challenges of achieving SDG 13 in Bangladesh

Achieving SDG 13 in Bangladesh faces several interlinked structural, economic, environmental, and governance-related constraints that limit the country's ability to fully implement climate adaptation, mitigation, and resilience measures. The major constraints that the country faces in achieving SDG 13 include the following:

Climate vulnerability: Bangladesh is vulnerable to frequent cyclones, floods, river erosion, salinity intrusion, and sea level rise, making it one of the most climate-sensitive nations in the world. These persistent risks erode development progress and increase the difficulty and expense of implementing climate action plans.

Financial limitations: Significant investments in resilient infrastructure, disaster preparedness, renewable energy, and coastal protection are required to effectively adapt to and mitigate climate change. Bangladesh is largely dependent on international climate funding and concessional financing, and its own resources are frequently insufficient to meet the expanding needs of the country. Insufficient funding for climate adaptation and mitigation is considered as one of the major reasons for not achieving SDG 13; as a result, the country still faces significant financial constraints in addressing climate change-related challenges. The financial resources are also insufficient. The capacity of government institutions to support a wide range of environmental management actions is severely constrained by resource constraints. Disbursements from the Green Climate Fund (GCF) are also quite slow.

Institutional and governance challenges: Fragmented institutional frameworks, bureaucratic inefficiencies, and corruption often impede the implementation of integrated climate policy. Limited inter-agency coordination between national and local government agencies reduces the effectiveness of adaptation programs. Bangladesh has developed several policies to address climate change induced challenges; however, their implementation has been sluggish, and the failure to enforce existing environmental regulations continues to exacerbate the situation.

Data and monitoring gaps: Comprehensive, disaggregated, and up-to-date data on climate hazards, vulnerability, and emissions remain limited. According to reports, although the average global progress towards achieving the SDGs by 2030 is 19 per cent, Bangladesh is largely unaware of its progress to date due to misinformation, a lack of surveys, and reliance on government data. The lack of data is a major concern, as only 155 of 231 SDG indicators has available data (The Daily Star, 2025). Although the country is a pioneer in disaster management and has undertaken initiatives to achieve SDG 13 targets, one of its major challenges is data accessibility and quality, which limit evidence-based policymaking and hinder effective monitoring of SDG 13 progress. Bangladesh faces significant monitoring gaps despite substantial institutional achievements, limiting a comprehensive assessment of climate action outcomes. While indicators at the national level, including the Disaster Risk Reduction (DRR) strategy implementation score, are

steadily improving, data are inconsistent or lacking for several important indicators, particularly at the local government level and for annual greenhouse gas emissions.

Rapid urbanization and population pressure: High population density, especially in urban centers such as Dhaka, increases demand for infrastructure, energy, and water resources, making climate-resilient planning more challenging. Climate strategies have also become increasingly difficult to implement due to rapid population growth and urbanization. Socio-economic factors have made the implementation of the climate change strategies more persistent.

Socio-economic inequalities: Marginalized communities, particularly in coastal and flood-prone areas, often lack access to resources, information, and technology for climate adaptation, exacerbating vulnerability and slowing inclusive progress on the SDG targets, especially SDG 13.

Technological and infrastructure gaps: Limited access to climate-resilient technologies, renewable energy solutions, and robust infrastructure restricts the capacity of the country to implement long-term mitigation and adaptation strategies. Bangladesh faces challenges related to the necessary infrastructure and development of appropriate technologies to address climate change. Technological innovations in renewable energy and waste management are still at a very early stage, limiting the ability of the country to transition to a low-carbon economy. Achieving NPT 32 requires continued investment in disaster risk reduction, early warning systems, climate-resilient infrastructure and community-based preparedness mechanisms. Over the past decades, the country has made significant progress in reducing cyclone-related mortality through improved forecasting, extensive cyclone-shelter networks, and strong coordination between government agencies and community-based volunteers. However, the frequency and intensity of climate induced hazards, like floods, heatwaves, riverbank erosion and storm surges, have still posed substantial risks to coastal and riverine populations. Achieving NPT 32 depends not only on strengthening emergency response capacity but also on integrating disaster risk reduction into national development planning, enhancing social protection systems, ensuring adequate financial support and monitoring. Additionally, there is a dearth of technical data on environmental performance that is neither regularly updated nor evaluated for monitoring improvement.

Even though Bangladesh developed proactive climate policy and adaptation initiatives, environmental vulnerability, technological and financial constraints, governance gaps, and socio-economic disparities make it challenging to achieve SDG 13. Strengthened institutional capacity, increased funding, improved data systems, and inclusive, climate-resilient development policies are all essential to overcome these obstacles.

6. Conclusion

Bangladesh, being highly vulnerable to climate change induced adverse impacts, faces significant challenges in attaining SDG 13. The country experiences frequent

cyclones, floods, sea-level rise, and temperature variability, which adversely affect agriculture, public health, infrastructure, and overall development. Despite progress in climate policies, adaptation measures, and disaster risk reduction programs, gaps remain in financing, institutional capacity, monitoring, and community-level implementation. Integration of climate action with other SDGs is essential, as climate impacts hinder achievements in poverty reduction, food security, health, and economic growth.

Achieving SDG 13 in Bangladesh is both an urgent necessity and a complex development challenge. Addressing climate change-related challenges under SDG 13 is vital to the sustainable development of the country. Although the country has been successful in climate adaptation, disaster preparedness, and community-based resilience, challenges such as limited access to climate finance, rapid population growth, high population density, and the increasing frequency and intensity of climate change induced hazards have slowed the progress. Institutional capacity building, enhanced regional cooperation, and ensuring funding from global financial arrangements and technology transfer are urgently required to address the long-term climate challenges. Efforts like the BCCSAP, coastal embankments, and community-based adaptation projects demonstrate progress, but scaling these initiatives and improving data-driven monitoring are crucial for achieving SDG 13. Collaborative governance, international support, and enhanced public awareness are identified as key drivers for effective climate action. For a developing country like Bangladesh, global climate governance and the fulfilment of global climate commitments must be ensured alongside the implementation of national policies and strategies. Even though steps have been taken, concerted, holistic efforts from the government, civil society, and international partners are required to ensure climate resilience. However, Bangladesh can make significant progress toward achieving SDG 13 by 2030 through greater public awareness, increased climate financing, technological advancements, and more effective policy implementation.

Bangladesh should enhance efforts to achieve SDG 13 by strengthening and coordinating the institutional framework among government agencies and other stakeholders. Enhancing education and awareness for informing communities about climate risks and proactive adaptation measures is also required. Focus should be given on adaptation strategies, including disaster preparedness through early warning systems, increasing the resilience of communities, as well as community-based adaptation strategies should also be encouraged. It is imperative to increase investment and mobilize financial resources to implement adaptive infrastructure and community-based resilience projects. The government should also focus on securing funds from international climate finance mechanisms.

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Annex

Table A1: Targets and Indicators of SDG 13

Targets	Indicators
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	**13.1.1** Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population **13.1.2** Number of countries that adopt and implement national disaster risk reduction strategies in line with the SFDRR 2015–2030 **13.1.3** Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies
13.2 Integrate climate change measures into national policies, strategies, and planning	**13.2.1** Number of countries with Nationally Determined Contributions (NDCs), long-term strategies, National Adaptation Plans (NAPs), and adaptation communications, as reported to the secretariat of the UNFCCC **13.2.2** Total greenhouse gas emissions per year
13.3 Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning	**13.3.1** The extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (*a*) national education policies; (*b*) curricula; (*c*) teacher education; and (*d*) student assessment
13.a Implement the commitment undertaken by developed-country parties to the UNFCCC to a goal of mobilizing jointly US$ 100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	**13.a.1** Amounts provided and mobilized in United States dollars per year in relation to the continued existing collective mobilization goal of the US$ 100 billion commitment through 2025
13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in the least developed countries and small island developing States, including focusing on women, youth, and local and marginalized communities	**13.b.1** Number of least developed countries and small island developing States with NDCs, long-term strategies, NAP, and adaptation communications, as reported to the secretariat of the UNFCCC

Source: Department of Economic and Social Affairs-b.