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INTEGRATING SUSTAINABLE CONSUMPTION AND PRODUCTION (SCP) AND CLIMATE CHANGE POLICY

A Strategic Contribution to Strengthening Bangladesh's Nationally Determined Contributions (NDC 3.0)

White Paper

Acknowledgement

This White Paper, *Integrating Sustainable Consumption and Production (SCP) and Climate Change Policy: A Strategic Contribution to Strengthening Bangladesh's Nationally Determined Contributions (NDC 3.0),* was prepared on behalf of the EU SWITCH Asia Policy Support Component (PSC) by Md Shamsuddoha under the supervision of Ranga Pallawala, Key Expert on Climate Change, Sachin Joshi, Key Expert on SCP Policy Options and SDG12 Progress, and Dr Zinaida Fadeeva, Team Leader, SWITCH-Asia Policy Support Component.

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Abbreviations and acronyms

3Rs	reduce, reuse, recycle / reduce, recycle and recovery
AFOLU	agriculture, forestry and other land use
BAU	business as usual
BBS	Bangladesh Bureau of Statistics
BCCSAP	Bangladesh Climate Change Adaptation Strategy and Action Plan
BCPP	Bangladesh Climate Prosperity Plan
BFD	Bangladesh Forest Department; see MoEF
BMCPP	Bangladesh Mujib Climate Prosperity Plan 2022
CCGAP	Climate Change and Gender Action Plan
CE	circular economy
COP21	2015 Paris Climate Conference of Parties; see IPCC
COVID-19	Coronavirus disease is by the SARS-CoV-2 virus.
DG INTPA	EU Directorate General – International Partnerships
DoE	Department of Environment
EECP, EECMP	Energy Efficiency and Conservation Master Plan 2030
ENSO	El Niño Southern Oscillation
ERD	Economic Relations Division
ESCAP	Economic and Social Commission for Asia and the Pacific; see also UNESCAP
EU	European Union
EUDs	EU Delegations
FYP	Five Year Plan
GCF	Green Climate Fund
GDP	gross domestic product
GED	General Economics Division, Bangladesh Planning Commission
GEF	Global Environment Facility
GHG/GHGS	greenhouse gas(es)
GST	global stocktake
GW	gigawatt (=1 billion watts)
HCFCs	hydrochlorofluorocarbons
IEMPMP	Intergrated Energy and Power Master Plan (2023)
IEPMP	Integrated Energy and Power Master Plan
IMF	International Monetary Fund
INFORM	Disaster Risk Management Knowledge Centre (of the EU)
IOD	Indian Ocean Dipole
IPCC	Intergovernmental Panel on Climate Chang
IPPU	Industrial Processes and Product Use
IRP	International Resource Panel
ITMOs	Internationally Transferred Mitigation Outcomes
KE	key expert
LDC	Least-developed countries

LGD	local government department
LNG	liquefied natural gas
LT-LEDS	long-term low-emission development pathways
LTS	long-term strategy
MCPP	Mujib Climate Prosperity Plan
MoEF	Ministry of Environment and Forest
MoEFCC	Ministry of Environment Forests and Climate Change
MoPEMR	Ministry of Power, Energy and Mineral Resources
MoST	Ministry of Science and Technology
MRV	monitoring, reporting and verification
Mt	megatonne
$MtCO_2e$	Metric tonnes of carbon dioxide equivalent
NDCs	Nationally Determined Contributions
nKe	non-key expert
NMAs	non-market-based approaches
NMAs	non-market approaches
OECD	Organisation for Economic Co-operation and Development
PSC	Policy Support Component of the SWITCH-Asic Programme
PSMP	Power System Master Plan
RMGs	ready-made garments
SCP	sustainable consumption and production
SDG	United Nations Sustainable Development Goals
SID	Statistics and Information Division
SMEs	small- and medium-sized enterprises
SREDA	Sustainable And Renewable Energy Development Authority
TA	technical advisory
UMIC	Upper Middle-Income Country
UN	United Nations
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFCCC	United Nations Framework Convention
USD	United States dollar

Executive Summary

This white paper outlines the scope and challenges of developing a Bangladesh-specific Nationally Determined Contribution (NDC) that incorporates Sustainable Consumption and Production (SCP) strategies. Although SCP holds significant mitigation potential across key sectoral value chains, the current NDCs remain conservative, often shaped by political reluctance and ongoing North-South debates on emission responsibilities. As a result, many SCP-relevant opportunities are being overlooked. Strengthening integration of SCP into the NDC framework could offer significant scope for emissions reductions, particularly in the private sector, but existing policy and institutional barriers must first be addressed.

This white paper explores the SCP scopes and challenges in Bangladesh's climate-specific plans and strategies, reviews relevant documents having direct and indirect implications for SCP, and develops an analytical proposition based on 27 interviews with key informants, which were scheduled and structured objectively to identify policy spaces and key challenges, as well as how to integrate SCP into NDC 3.0. The key recommendations, based on the analysis of the key documents and stakeholder consultations, include:

- Including the private sector in the NDCs, especially ready-made garments (RMGs), and textile, cement, and similar activities because at present they are inefficient and unsustainable in using resources and they create pollution. NDCs should emphasise the engagement of the private sector in the NDCs with obligations concerning energy and resource efficiency
- Integrating SCP practices into non-market-based approaches (NMAs) – as defined under Article 6 of the Paris Agreement – may be more feasible, given their relatively flexible requirements for accounting and reporting compared to market-based mechanisms
- Developing a national framework or mechanism for carbon market development and emissions trading. A well-functioning national carbon market can enhance the implementation of NDCs by facilitating private sector participation in mitigation efforts through the creation of incentives through emission trading, and by enabling the country to engage in voluntary international cooperation under Article 6.2 of the Paris Agreement, including the use of Internationally Transferred Mitigation Outcomes (ITMOs), with appropriate corresponding adjustments to ensure environmental integrity and avoid double counting
- Introducing a carbon tax on activities or resource uses that produce high greenhouse gas (GHG) emissions, such as excessive fossil fuel consumption, deforestation, or inefficient and wasteful industrial practices
- Building capacity in the private sector to identify opportunities for sustainable consumption and production (SCP) within their production-consumption cycles, supported by strengthened policy coherence and institutional coordination between Sustainable Development Goal (SDG) implementation, SCP policies and NDC mechanisms
- Facilitating private-public collaboration in terms of capacity building and mobilising finances for promoting SCP practices in the private sector
- Identifying and mapping emission-intensive sectors and industries, including key emission sources along their supply chains, to establish reliable emissions baselines. Such action will support the strategic inclusion of these sectors in NDC 3.0 by enabling targeted, data-driven mitigation planning
- Developing a National SCP strategy as the legal basis for institutionalising and integrating SCP into NDC and other relevant plans.

1. The Switch-Asia Programme

Through the EU Green Deal and Global Gateway, the EU is committed to supporting the transition of countries to a low-carbon, resource-efficient and circular economy while promoting sustainable production and consumption patterns.

As part of this engagement, the SWITCH-Asia Policy Support Component (PSC) aims to enhance SCP progress through scaling up and mainstreaming SCP policy in 41 countries, spanning from the Middle East, Central Asia, to South Asia, Southeast Asia and the Pacific (target region). The SWITCH-Asia PSC builds on SWITCH-Asia's long and successful track record of providing technical assistance. The Programme also links with the SWITCH-Asia grants component and connects with EU Delegation (EUDs) programmes and priorities. The flexible and on-demand interventions of the Programme, and its mandate to foster cooperation, strengthen networking, and build a platform for exchange, mean that the PSC is well-positioned to meet the needs of the target region in addressing the triple planetary crises and meeting international commitments, including the SDGs and the Paris Agreement.

As a mode of operation, the PSC liaises with and advises national governments and regional organisations and networks in the target region. Typically, it engages countries in regional and multi-country approaches on scaling up SCP policy and implementation, delivering technical advisory and knowledge exchange, and building capacity in regional institutions. Key points of intervention are SDG 12 and SCP-related goals progress and support; integrating SCP into NDCs and climate-related actions; regional stakeholder engagement, with a particular attention to business and industry representatives; and communicating on SCP. The PSC team exchanges closely with the Consortium Partners (GOPA and NIRAS), and the DG INTPA Unit C3 in Brussels (Programme Manager), and is in continuous contact as well with target regions EUDs. With a duration of 48 months starting 1st January 2023, the PSC consists of a team of Key Experts (KEs) focusing on different aspects of implementation including policy advisory, knowledge exchange, and stakeholder engagement. To support this work, and with the ambition of developing regional capacities, non-Key Experts (NKEs) are mobilised for long-term (> 12 months) and short-term assignments to address key SCP policy and implementation needs expressed by the countries within the target region.

This report has been developed as a part of an exploratory Technical Advisory (TA) titled *Sustainable Consumption and Production (SCP)-linked Nationally Determined Contributions (NDC) – Lessons Learned from the Champion Countries and identifying opportunities to capitalise synergies between NDC & SCP*, which was carried out in five South Asian countries, namely Bangladesh, Bhutan, Nepal, Pakistan and Sri Lanka.

2. The Nexus

2.1. Climate change and sustainable consumption and production

Unsustainable consumption and production patterns constitute the fundamental drivers of three interlinked planetary crises: climate change, biodiversity erosion, and environmental pollution. Evidence demonstrates that strategic modifications to these patterns could substantially reduce global greenhouse gas emissions through both direct and indirect pathways. Deploying Sustainable Consumption and Production (SCP) frameworks yields significant co-benefits for climate change mitigation and sustainable development, particularly concerning natural resource extraction and utilisation. The International Resource Panel's (IRP) Global Resources Outlook 2024 presents compelling evidence of the relationship between material resource use and environmental degradation.

> *Extraction and processing of material resources (fossil fuels, minerals, non-metallic minerals and biomass) account for over 55% of greenhouse gas emissions (GHG) and 40% of particulate matter health-related impacts. If land use change is considered, climate impacts grow to more than 60%, with biomass contributing the most (28%) followed by fossil fuels (18%) and then non-metallic minerals and metals (together 17%). Biomass (agricultural crops and forestry) also account for over 90% of the total land use related biodiversity loss and water stress (United Nations Environment Programme, 2024).*

These data underscore the urgent need to integrate Sustainable Consumption and Production (SCP) into national and global climate strategies, including NDCs, to address the systemic drivers of emissions and environmental degradation.

These findings emphasise the substantial potential for both climate change mitigation and adaptation strategies through enhanced material resource efficiency and sustainable resource management practices. The data demonstrate clear pathways for intervention through improved production processes and consumption patterns. Despite its significance, the nexus between climate change and sustainable consumption and production remains substantially underexplored in global climate policy frameworks. However, the Paris Agreement and its associated NDCs present a strategic opportunity for nations to explore this critical relationship more comprehensively, integrate SCP strategies into climate actions, and develop more holistic approaches to emissions reduction and climate-change resilience building.

2.2. Nationally Determined Contributions (NDCs)

The Nationally Determined Contribution (NDC) is the building block of the Paris Agreement, which was agreed at the 21st Conference of Parties (COP21) of the United Nations Framework Convention (UNFCCC), paving the path towards a bottom-up approach towards a global agreement to solve global climate change challenges and providing an opportunity to integrate national priorities with climate actions. All the parties are supposed to update their NDC progressively in every five years in order to achieve the overall objectives of the Paris Agreement. The NDC process has been recognised as an opportunity to address other global commitments in an integrated manner.

The Sustainable Development Goals (SDG), a landmark agreement in the 2030 global development agenda, has also recognised the Paris Agreement as a main contributor in achieving climate targets, which opened a window of opportunity for countries to establish a development pathway that would contribute to multiple global and national commitments as part of a common process including monitoring, reporting, and verification.

During the first NDC cycle of the Paris Agreement, many Asia-Pacific countries included SCP-linked NDC targets and championed SCP-NDC integration. Altogether 28 countries in the Asia-Pacific region have a direct reference to SCP within their NDC targets, and in almost all of the countries there are SCP-related targets without, however, a direct reference to SCP. Energy efficiency, waste management, value-chain improvements, green buildings, building material with low carbon footprints, and promotion of sustainable lifestyles, are some of the common SCP-linked NDC areas in Asia. However, many of these targets are

presented as conditional, implying that the achievements are contingent to the country being able to access international support in the areas of finance, technology and capacity building.

In 2025, all parties to the Paris Agreement are required to submit their third round of Nationally Determined Contributions (NDC 3.0), which must demonstrate an increased climate ambition guided by the Global Stocktake (GST) outcomes. NDC 3.0 thus presents countries with a strategic opportunity to integrate their national priorities, including SCP in their enhanced climate commitments. The bottom-up NDC approach enables countries to effectively align their domestic objectives with international climate ambitions, ensuring both national relevance and global climate action. To capitalise on this opportunity, this current Technical Advisory (TA), *Sustainable Consumption and Production (SCP)-linked Nationally Determined Contributions (NDC) – Lessons Learned from the Champion Countries and identifying opportunities to capitalise synergies between NDC & SCP* has been specifically designed and implemented to support target countries in enhancing their NDCs. The TA aims to add value by making the NDCs more relevant and pragmatic, helping countries bridge the gap between ambitious climate goals and practical implementation strategies.

2.3. Objectives of the Technical Advisory

The TA has been strategically developed as an exploratory and scoping initiative to examine how Sustainable Consumption and Production (SCP) can support strengthening of national climate commitments with focus on NDCs and LT-LEDS, via three primary objectives:

- Assessment of the current status of SCP integration within existing climate ambitions
- Identification of the potential opportunities for enhanced integration
- Exploration of the viable pathways for implementing these integration options.

This scoping approach will enable a comprehensive understanding of both current practices and future opportunities, thereby laying the groundwork for more targeted support to enhance countries' climate actions.

2.4. Methodology

This White Paper has been developed in two phases. The first phase was conducted in September and October 2023 and contributed to developing a 'Country Factsheet' within the scope of integrating SCP into the national plan and strategies. The second phase involves the ongoing study of extensive detailed literature reviews, mapping of the key stakeholders, and interviewing them with study questions.

The literature base consisted of national climate-specific and development plans, documents, and open-source reports from the UN, OECD, EU, national and international associations, and academies. This White Paper, focused on developing an enabling policy environment for SCP-linked NDC targets from 2026 to 2023, uses a mixed method of data collection against a checklist with key guiding questions on the challenges and scope involved in developing an SCP-linked NDC.

Relevant documents having either a direct and indirect correlation with SCP were reviewed, and interviews were conducted by 27 of the key informants of (or stakeholders) who made up the NDC focal persons at the Ministry of Environment Forests and Climate Change (MoEFCCC), or who were sectoral experts, development professionals, textile and ready-made garments manufacturers, small- and medium-sized enterprise (SME) owners, and other stakeholders from relevant government agencies and departments. Stakeholder interviews were structured to align with the project objectives.

2.5. SCP Priorities of Bangladesh

Bangladesh has yet to develop a stand-alone SCP policy for expediting and scaling-up measures that would deal with questions of sustainable use of resources and climate. However, there are several SCP-linked policies and plans that are already promoting SCPs in specific sectors, namely: National 3R Strategy for Waste Management, National Industrial Policy, Bangladesh Green Building Code, and Sustainable Agriculture Programme Development Plan. **Table 1** presents the SCP-linked policy and plans in Bangladesh.

Table 1. SCP-linked policy and plans in Bangladesh

SCP-linked Policy and Plans	Focus	Scope of SCP
National 3R Strategy for Waste Management	Aims to promote the principles of reduce, reuse, and recycle (3R) to minimise waste generation and enhance resource efficiency. Its core focus is to shift from traditional waste disposal practices to a more sustainable approach, encouraging recycling, reducing landfill waste, and fostering public awareness on responsible consumption.	Promotes a circular economy by minimising waste, recovering resources, and supporting recycling industries, along with public awareness on sustainable consumption. It integrates SCP principles by encouraging industries and communities to adopt sustainable production practices that reduce waste and extend product life cycles. The strategy also fosters the development of recycling industries, energy recovery from waste, and eco-friendly products, ultimately driving Bangladesh towards a more sustainable, resource-efficient economy.
Sustainable Agriculture Programme Development Plan.	Centres on fostering agricultural practices that are both productive and environmentally sustainable. It focuses on improving food security, enhancing soil health, and reducing environmental degradation through methods such as organic farming, efficient water usage, and climate-resilient crops.	Encourages the use of eco-friendly inputs, sustainable land management, and the reduction of chemical dependency, promoting long-term agricultural productivity while safeguarding natural resources.
National Industrial Policy	Designed to promote industrial growth while ensuring environmental sustainability and social development. Its policy focus is on promoting clean production processes, energy efficiency, and pollution control within the industrial sector.	Supports the adoption of green technologies, cleaner production processes, and resource efficiency in industries, alongside promoting eco-friendly entrepreneurship and innovation.
Bangladesh Green Building Code	Sustainable construction practices that reduce environmental impact, improve energy efficiency, and create healthier living environments. The policy emphasises the importance of integrating eco-friendly designs, materials, and technologies into building projects to reduce carbon emissions and resource consumption.	Provides guidelines for energy conservation through efficient lighting, heating, and cooling systems, and promotes water-saving technologies and waste reduction strategies. The code supports the use of locally sourced, eco-friendly construction materials, which reduce transportation-related emissions and foster sustainable resource use. Additionally, by incorporating renewable energy solutions, the code enhances the overall sustainability of urban development.
Sustainable Agriculture Programme Development Plan	Designed to promote agricultural practices that ensure long-term sustainability, food security, and environmental protection. Its core focus is to support the adoption of climate-resilient farming methods that reduce the dependency on harmful chemicals and minimise environmental degradation. It advocates for organic farming, improved soil health, efficient water management, and the conservation of biodiversity.	Integrates sustainable resource management, emphasising responsible use of agricultural inputs such as fertilisers and pesticides. It encourages practices that optimise natural resources and reduce the carbon footprint of agriculture, promoting environmentally friendly farming systems that are both economically viable and socially inclusive. By focusing on sustainable consumption, the plan aims to foster demand for organic and locally sourced products, which can help reduce food miles and environmental impacts. This holistic approach ensures that agriculture contributes to environmental sustainability while meeting the needs of present and future generations.

In addition to the policies and plans outlined in Table 1, the targets under Sustainable Development Goal 12 also serve as an important global policy directive for integrating Sustainable Consumption and Production (SCP) into national planning. They call for actions to promote SCP practices across various sectors and within human behaviour.

While Bangladesh has made commendable progress in achieving several Sustainable Development Goals, particularly SDG 1 on ending poverty, SDG 2 on zero hunger, and SDG 6 on clean water and sanitation – which have contributed to the country's overall SDG score of 65.9 – progress on environment-related goals has been limited. In fact, the indicators under SDGs 11, 12, 13, 14, and 15 have not only stagnated, in some cases they have regressed.

According to a 2017 report by UNESCAP, the region experienced regression in SDG 11 on sustainable cities and communities and SDG 13 on climate action, and it identified SDG 14 on life below water and SDG 15 on life on land as requiring the most significant efforts. Similarly, national SDG status reports reflect a weak focus on environmental priorities and reveal minimal progress across associated indicators.

Recognising the importance of environment-related SDGs both globally and nationally, the Ministry of Environment, Forests and Climate Change (MoEFCC) has developed an action plan that maps the ministry's specific implementation responsibilities, either as a lead or supporting agency, for relevant goals and targets. This action plan is intended to guide, coordinate, and institutionalise more robust integration of environmental SDGs into national development strategies. However, many of these targets lack baseline indicator data needed to track progress effectively. For example, in relation to SDG 12, no baseline data are available for indicators 12.2.1 and 12.2.2 under target 12.2, indicator 12.4.2 under target 12.4, and indicator 12.6.1 under target 12.6.

Although Bangladesh has signed and ratified key international conventions such as the Stockholm Convention on Persistent Organic Pollutants and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes, it has yet to ratify the Basel Ban Amendment, the Minamata Convention on Mercury, and the Rotterdam Convention on hazardous chemical trade. Ratifying and meeting the obligations of these treaties are essential for achieving indicator 12.4.1 under SDG 12.

As shown in Table 2, the gaps in SCP-specific action planning and indicator-level data highlight the limited attention given to meeting both national and global targets under SDG 12 on sustainable consumption and production.

Table 2. Action plan for implementing SDG 12

SDG 12: Ensure sustainable consumption and production patterns			
Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resource	**Indicator 12.2.1:** Material footprint, material footprint per capita, and material footprint per GDP.	**Currently there are no data for this indicator** The indicator requires the establishment of baseline data on the material footprint of the major agricultural and industrial products, and then establishing a baseline on the per capita and per GDP footprint. DoE will undertake a project to develop material footprint of the major agricultural products e.g. rice, meat and potatoes.	*Lead:* MoEF (BFD) *Co-Lead:* ERD, GED *Data provider:* i) DoE, MoEFCC ii) BBS, SID
	Indicator 12.2.2: Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	**Currently there are no data for this indicator** The indicator requires the establishment of baseline data on the per capita and per GDP material consumption. DoE will undertake a pilot project to assess material consumption at household establish and baseline on per capita material consumption.	*Lead:* MoEFCC (BFD) *Co-Lead:* ERD, GED *Data provider:* i) DoE, MoEFCC ii) BBS

Target 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment.	**Indicator 12.4.1**: Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement.	**It's a global indicator,** has been set with an aim to gradually increase the number of countries meeting the commitments and obligations that they made under the multilateral environmental agreements. Bangladesh signed and ratified Stockholm Convention on POPs, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes; but yet to ratify Basel Ban Amendment and Minamata Convention on Mercury. Also, Bangladesh is yet to sign the Rotterdam Convention The respective cell at the DoE will ensure submitting the annual reports on the implementation of the signed and ratified conventions.	***Lead:*** MoEFCC ***Data provider:*** DoE, MoEFCC
	Indicator 12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment.	**Currently there are no data for this indicator** The indicator requires the establishment of baseline data on the per capita amount of hazardous waste generated, and the percentage of waste treated by the type of treatment. DoE will undertake a project to identify the hazardous waste generating industries and calculate the volume of hazardous waste generated per capita and the proportion treated by the different treatment types.	***Lead:*** Local Government Department-LGD ***Co-Lead:*** DoE, MoEFCC ***Data provider:*** i) LGD ii) DoE. MoEFCC iii) Ministry of Science and Technology (MoST) iv) Bangladesh Bureau of Statistics (BBS), SID
Target 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	**Indicator 12.6.1:** Number of companies publishing sustainability reports	**Currently there are no data for this indicator** The indicator requires the development of a baseline on the companies currently publishing sustainability reports; it is also necessary to undertake a progressive target to increase the number of companies that publish sustainability reports. DoE will develop a guideline for the companies on the elements of the sustainability reports, and undertake a project to build capacity of the public and private sector companies on the development of sustainability report.	***Lead:*** MoEFCC (DoE) ***Data provider:*** DoE, MoEFCC

2.6. Climate Change Prorities of Bangladesh

The climate is influenced by the El Niño Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD). According to estimates, more than 90 million Bangladeshis (56% of the population) in high exposure climate areas affected by multiple hazards, especially by the prevalence of more intense floods and droughts associated with ENSO and IOD. The major climate-induced hazards in Bangladesh are tropical cyclones, tornadoes, floods, coastal and riverbank erosion, droughts, extreme heat waves, and landslides (World Bank Group, 2024).

The Global Climate Risk Index ranks Bangladesh as the seventh most affected country in the world in the context of climate change-induced disaster losses from 2000 to 2019 (Eckstein, Kunzel, & Schafer, 2021), while the INFORM Risk Index 2021 ranks it 27th among 191 countries. Annual losses from disasters are estimated at around USD 3 billion, equivalent to 1–2% of GDP. The Index reported 185 extreme weather events during

this period, resulting in 1,450 fatalities and economic damages amounting to USD 3.7 billion. Depending on the severity of climate conditions, the IMF Country Report on Bangladesh (IMF, 2019) projected an annual GDP loss of between 1.1% and 2.0%. Likewise, the Bangladesh Delta Plan 2100 (GED, 2018) projected a similar annual GDP loss of 1.1% to 2% by 2050 under two temperature rise scenarios: 1.4 °C to 1.9 °C under a business-as-usual scenario and 2 °C under an extreme climate scenario. Ahmed & Suphachalasai (2014) estimated a potential loss of up to 9% of GDP by the end of the century under an extreme climate change scenario and in the absence of strong emission reduction efforts.

However, modelling the highest emissions pathway that could result in a global average temperature rise of 3.6 °C, the World Bank Group report (2024) on Bangladesh projected a sea level rise of about 0.5 to 1.5 m by the end of the century, threatening coastal areas with inundation and salinity intrusion.

Contextualising the above narrative of climate change impacts, Bangladesh has over the years developed a one-dimensional discourse that emphasises finance-centric adaptation requirements while downplaying its own responsibilities and needs for greenhouse gas emission reductions. Although several initiatives have been undertaken for clean and green development, they are mostly project-based and focused on environmental pollution control and energy security. It is only after the Paris Agreement in 2015 that policy stakeholders began to acknowledge the importance of emission reduction alongside adaptation.

In addition to the adaptation-centric narrative, Bangladesh has consistently communicated a growth-driven development agenda, with aspirations of steady GDP growth and set milestones of graduating from the UN's Least Developed Country status by 2026, and becoming an upper middle-income country by 2031 and a high-income country by 2041 (GED, 2020b). These growth-oriented priorities, often shaped by political interests, tend to overshadow climate considerations. For example, Bangladesh's first long-term development strategy, 'Vision 2021,' which aimed for LDC graduation by 2021, relied heavily on fossil fuel-based power generation to ensure steady industrial output. In line with political priorities, the Power System Master Plan (PSMP) 2010 set aspirational targets of 23,000 MW by 2020 (end of the 7th FYP), 24,000 MW by 2021, and 40,000 MW by 2030 (MoPEMR, 2016).

There are several other plans, such as the Mujib Climate Prosperity Plan 2022–2041 and the Bangladesh Delta Plan 2100, which are claimed to be aligned with the Paris Agreement. However, they also heavily rely on uninterrupted power supply, indicating a continued dependence on conventional energy sources.

Figure 1. Key development plans in Bangladesh, aligned to national development priorities and global climate and SDGs obligations

Aligning with the obligation of the Paris Climate Agreement, Bangladesh has updated its NDC and is also in the process of developing a Long-Term Strategy (LTS) for energy decarbonisation.

While the enhanced NDC 2021 set a scaled-up target for greenhouse gas (GHG) emission reduction, the Integrated Energy and Power Master Plan (IEPMP) demonstrated a shift from earlier coal-based power generation to LNG, nuclear, and renewable energy sources. The IEPMP set a target of 52.6 GW installed capacity by 2030, with LNG dominating at 48.28%, followed by 20.15% from coal and 11.02% from oil. The remaining capacity is expected to come from nuclear, solar, and imported sources. The installed capacity target is projected to increase to 86.1 GW by 2041, with coal's share declining to 11.14% and the introduction of wind and hydrogen, contributing 8.71% and 8.82% respectively. However, the reliance on LNG remains significant, with a projected share of 47.61% (MoPEMR, 2023).

The Bangladesh Mujib Climate Prosperity Plan 2022 (BMCPP 2022–2041), on the other hand, aims to shift the national narrative from vulnerability to resilience and then to prosperity, thereby transitioning toward sustainable prosperity by 2041. The plan envisions economic transformation through multiple pathways, including strengthening employment in a green economy that is climate-resilient, low-carbon, resource-efficient, gender-responsive, and socially inclusive. It targets accelerated job creation, upskilling of the workforce into high-quality green technology jobs, and significantly enhancing workplace protection. The plan also sets a goal of reaching 30% renewable energy by 2030 and up to 40% by 2041, while ensuring energy independence and energy security with the ambition of becoming a net green energy exporter to the world.

Figure 2 presents the existing SCP-linked policy trajectory within the development trajectory of Bangladesh.

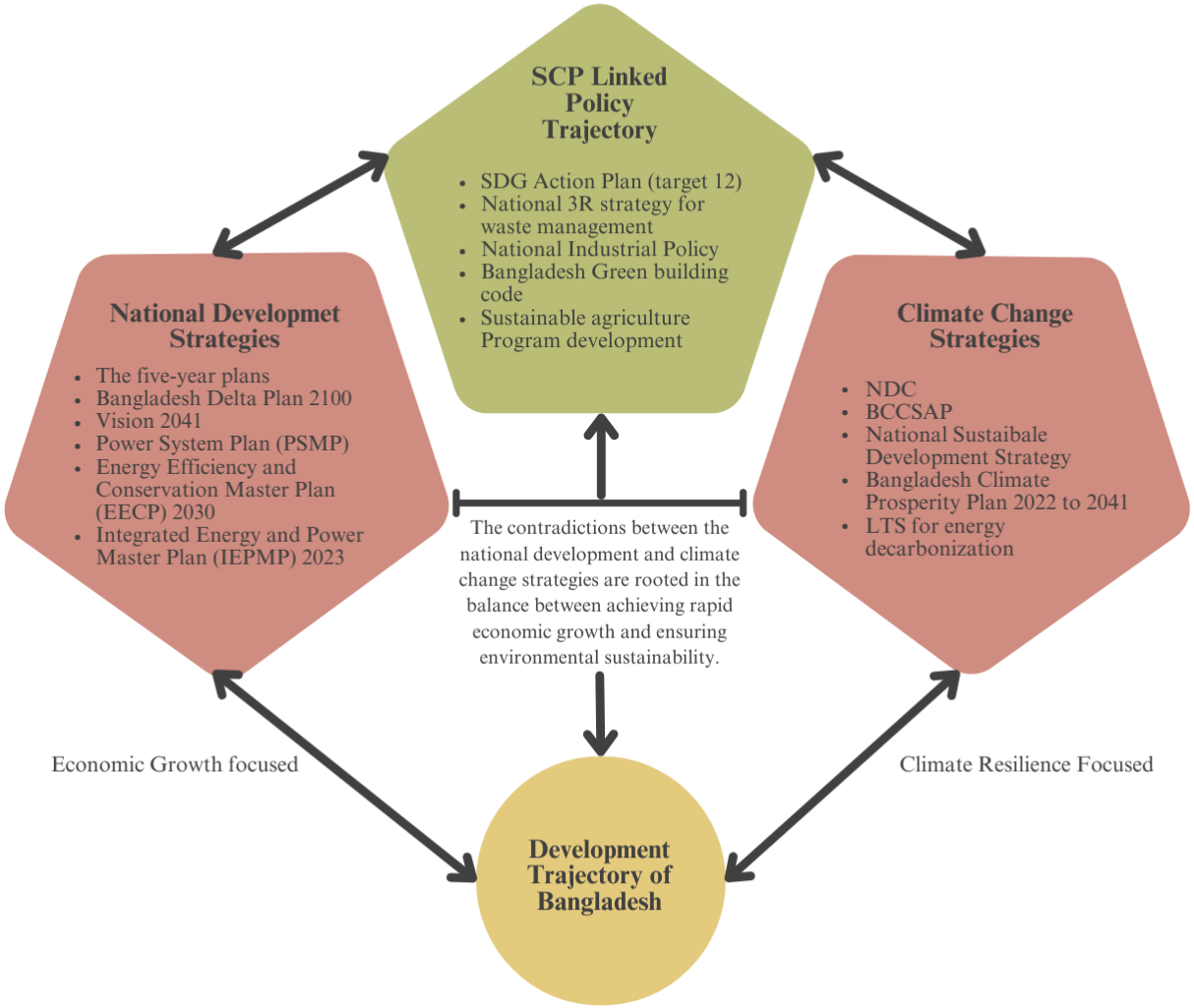

Figure 2. SCP-link policy trajectory within the development trajectory of Bangladesh

Understandably, the mixed approach and strategies adopted by Bangladesh contribute to the implementation of the Sustainable Development Goals (SDGs): on one hand, by generating more power to sustain consistent growth and reduce poverty; and on the other, by keeping emissions below the business as usual (BAU) level. However, concerns remain over the projection of fossil fuel-based growth, as the implementation of the 2015 Paris Climate Agreement necessitates the decarbonisation of the energy sector by 2050.

2.7. SCP spaces in Bangladesh's Climate-Specific Plans

2.7.1. The Nationally Determined Contribution(NDC) of Bangladesh

Bangladesh submitted its first NDC in 2015 and a Revised and Updated NDC in 2020, covering targets up to 2030. The updated NDC articulates future ambitions to reduce greenhouse gas (GHG) emissions by 2030 through two types of pledges – conditional and unconditional – across four major sectors: Energy (including Power, Industry, and Transport), Industrial Processes and Product Use (IPPU), Agriculture, Forestry and Other Land Use (AFOLU), and Waste. Bangladesh aims to reduce GHG emissions from the 2012 level of 169 $MtCO_2e$ by 15.21% (61.9 Mt) below the BAU scenario, contingent on international financial and technological support, and by 6.73% (27.56 Mt) using existing domestic resources, technologies, and labour. The BAU projection for 2030 estimates emissions at 409.4 $MtCO_2e$, so even with full NDC implementation, emissions would still rise to 319.94 $MtCO_2e$ by 2030 (MoEFCC, 2021).

SCP Spaces in the NDC: Bangladesh's NDC addresses several carbon-intensive sectors, currently including Energy (Power, Industry, and Transport), IPPU, and AFOLU. However, the country must eventually adopt an economy-wide emissions reduction approach, incorporating progressive targets to enable a transformational shift towards net-zero pathways. The UNFCCC has also urged Bangladesh to develop and submit a long-term emissions reduction strategy along with an implementation roadmap. Bangladesh is already implementing several projects that relate to Sustainable Consumption and Production (SCP), which could be further aligned and strengthened with measurable targets in the next NDC cycle. To be more ambitions in NDCs, Bangladesh can consider SCP measures and targets that address reductions in material use and improvements in material efficiency across key sectors like industry, construction, and agriculture, linking resource use with GHG emissions reduction. Making this link explicit remains challenging, and this will depend on data availability and sector-specific metrics.

While the enhanced NDC includes four sectors (Energy, IPPU, AFOLU, and Waste), other significant carbon-intensive sectors still need to be brought under emissions reduction targets. These include emissions from traditional brick manufacturing, the readymade garments (RMG) sector, and food waste reduction through improved agricultural supply chains.

Although NDCs typically follow a five-year implementation cycle, they must be periodically updated and enhanced, as guided by the Global Stocktake (GST). In addition to the NDCs—which are inherently sector-specific—Bangladesh has initiated the process of formulating its Long-Term Strategy (LTS) and action plan for transitioning to a net-zero economy. The LTS, supported by the Government of Japan and JICA, was expected to be finalised by 2022–2023. There is also an opportunity to integrate SCP principles into Bangladesh's LTS and subsequently into future iterations of the NDC.

2.7.2. Bangladesh Mujib Climate Prosperity Plan 2022–2041

The Bangladesh Mujib Climate Prosperity Plan (BMCPP) is anchored in Bangladesh's primary national planning document, the 8th Five Year Plan (8FYP) 2020–2025. The 8FYP is pivotal for achieving the outcomes of Vision 2041, the Bangladesh Delta Plan 2100, the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), the National Adaptation Plan (NAP) 2023–2050, the NDC 2021, the Climate Change and Gender Action Plan (CCGAP), and the Sustainable Development Goals (SDGs) by 2030.

The BMCPP emphasises the establishment of climate-resilient agricultural and fisheries supply chains, supported by national disaster risk funding and management systems to safeguard food and water security. Adaptation of food supply systems to climate change will be achieved through enhanced access to agro-meteorological services, the adoption of improved production and management techniques, and diversification within rice-based cropping systems to include high-value, nutritious crops along the supply chain. The plan also proposes risk transfer mechanisms for key actors across the supply chain (MoEFCC, 2022).

The BMCPP outlines clear strategies for enhancing Bangladesh's share in renewable energy, energy efficiency, and energy storage infrastructure. It aims to capitalise on the deflationary cost trends in domestic renewable electricity generation and storage.

A strategic pillar of the plan includes the reconversion of coal-, oil-, and diesel-based thermal power plants and associated workforce upskilling to support advanced green hydrogen production and waste-to-energy/biomass facilities. These new installations are envisioned to integrate with the existing LNG/natural gas network, improve grid stability, supply cleaner energy, and contribute to a high-value export economy based on green hydrogen derived from renewable sources.

2.7.3. Integrated Energy and Power Master Plan (IEPMP) 2023

The Integrated Energy and Power Master Plan (IEPMP) 2023 serves as Bangladesh's long-term strategic framework for establishing a clean and efficient energy supply and demand system. It is built on four key principles: safety, energy security, economic efficiency, and environmental sustainability (MoPEMR, 2023).

The IEPMP projects installed power generation capacities of 52.6 GW by 2030, 86.1 GW by 2041, and 137.8 GW by 2050. It proposes a shifting energy mix involving coal, oil, LNG, nuclear, and renewables. Notably, coal's share in the generation mix is projected to decline from 30% to 20.15% in 2030, and further down to 11.1% by 2041, offset by increased reliance on LNG, which will account for 48.28% by 2030 and 47.61% by 2041. The reduced coal share is expected to be balanced with increased contributions from wind (8.71%), hydrogen (8.82%), power imports (10.10%), and additional sources such as nuclear, solar, and ammonia.

Looking ahead to 2050, gas and LNG are expected to remain dominant at 45.64%, while wind and hydrogen will contribute 14.51% and 16.25% respectively. Imports will constitute 10.66% of the power mix, supplemented by solar, nuclear, hydro, and ammonia. The total installed capacity is projected to reach 137.8 GW by 2050.

The plan reflects a clear trajectory away from traditional fossil fuels—from 92.7% of the generation mix in 2021 to 79.4% by 2030, 61.3% by 2041, and 48.6% by 2050. Under the ATS In-Between scenario, the fossil fuel share is expected to decline from 74.7% in 2030 to 59.4% in 2041, reaching 42.7% by 2050. Both the ATS and ATS In-Between scenarios highlight a gradual and strategic shift from fossil fuels toward greener energy alternatives.

2.7.4. Energy Efficiency and Conservation Master Plan (EECMP)

The Energy Efficiency and Conservation Master Plan (EECMP), introduced in 2016, provides a strategic roadmap for enhancing energy efficiency across sectors. It outlines specific action plans, institutional frameworks, and operational mechanisms for achieving energy conservation (SREDA, 2016).

The EECMP identifies four major sectors – industrial, residential, commercial (buildings), and agricultural – as having substantial energy-saving potential, quantified as 21%, 28.8%, 50%, and 20% respectively.

2.7.5. 8th Five Year Plan (2020–2025)

Bangladesh's Planning Commission has a long-standing tradition of formulating centrally coordinated Five-Year Plans (FYPs) supported by resource allocation frameworks and sector-specific targets. With its first plan implemented between 1973 and 1978 (PC, 1973), Bangladesh is currently executing its 8th FYP (2020–2025), which aims to reduce poverty and inequality, build climate resilience, promote inclusive prosperity, and accelerate sustainable development under six core thematic areas (GED, 2020a):

- Rapid recovery from COVID-19 to restore public health, economic activity, employment, and income
- Acceleration of GDP growth, employment, and productivity for poverty reduction
- Inclusive development through citizen empowerment and targeted social protection for the poor and vulnerable
- A sustainable development trajectory that is resilient to disasters and climate change, promotes responsible natural resource use, and manages urbanisation effectively
- Strengthening institutions critical for achieving Upper Middle-Income Country (UMIC) status
- Fulfilment of SDG targets and smooth transition from Least Developed Country (LDC) status

The plan highlights significant progress in reducing power system loss – from 15.73% in FY2010 to 10.90% in 2018 – while also acknowledging the shortfall in achieving the renewable energy targets within total power generation.

An analysis of Bangladesh's climate-specific and broader development strategies reveals that non-climate plans such as the 8FYP, MCPP, IEPMP, and EECMP offer broader integration opportunities for SCP practices than the more narrowly scoped NDC. Nevertheless, there remains substantial potential to mainstream SCP principles into upcoming climate and development plans. Table 3 summarises the policy scope and spaces of SCP integration.

Table 3. Scope and spaces of SCP integration in the key policy documents in Bangladesh

Policy Hook	Policy Scope	Spaces of SCP integration
NDC Cycle beyond 2030	Bangladesh's updated NDC 2021 covers Energy, Industrial Processes and Product Use (IPPU), Agriculture, Forestry and other Land use (AFOLU), and Waste. Power, Transport, and Industry are three major sub-sectors under the Energy Sector, while Brick manufacturing, Residential and commercial buildings (energy use), Energy use in Agriculture activities (pumps, tractors, harvesters, etc.), and fish farms, F-gases (HCFC use) in air conditioning and refrigeration and Fugitive emission from gas transmission and distribution systems, flaring in oil/gas fields etc. are considered as other sub-sectors of the Energy Sector. The Power sub-sector includes emissions from electricity generation activities from coal, gas, furnace oil-based power plants, and different renewable energy sources such as solar home systems, solar parks, solar mini & microgrid, rooftop solar and net metering, solar irrigation, hydro, wind, biomass, and biogas. The transport sub-sector comprises fuel combustion emissions from road, rail, and inland water transport. The industry sub-sector covers energy use in the industry covering fuel and electricity use in industrial activities. The IPPU sector covers industrial process-based emissions from cement clinker production and urea fertiliser production For the NDC update, 2012 has been considered as the base year following the Third National Communication of Bangladesh, which details a comprehensive national GHG emission inventory for 2012.	While Bangladesh's enhanced NDC has considered 4 sectors (e.g. Energy, IPPU, AFOLU, and the Waste sector), there are other carbon-intensive sectors that need to be brought under emission reduction targets. They include emissions from the traditional Brick Manufacturing and Readymade Garments Industries etc.
Bangladesh's Long-term Strategy towards decarbonisation	Already, Bangladesh initiated a process for developing its long-term strategy (LTS) for energy decarbonisation. Bangladesh reached an agreement with the JICA/Japan government for technical and financial support for developing LTS.	Upon the development of the long-term strategy (LTS), any country's NDC should be aligned with it. The UNFCCC secretariat is responsible for developing the LTS synthesis report, hence would be worthwhile integrating SCP of a few potential sectors.

Bangladesh Climate Prosperity Plan (BCPP) up to 2030	The BCPP got huge policy attention for envisioning an enormous amount of power generation from renewable sources, especially from off-shore wind energy sources. Despite having many grey areas, for instance, the technological feasibility, socio-economic and environmental implications of off-shore wind energy structures, implications to the ecosystem services and safeguards, etc., the BCPP has expressively been hailed by the international stakeholders.	The BCPP requires a thorough review of its scope, targets, and technicalities of power generation from the RE/ off-shore wind energy sources, also the scopes of SCP.
Bangladesh Delta Plan 2100	The government adopted the Bangladesh Delta Plan 2100, a comprehensive 100-year strategic plan aimed at gradual sustainable development through an adaptive delta management process. The Delta plan has included climate change as a significant future challenge. It reaffirms Bangladesh's commitment to reducing GHG emissions from key sectors through efforts like promoting improved rice parboiling systems and ensuring energy efficiency, and research on the suitability of various tree species for their carbon-locking properties suitable for forestry programmes. The plan targets to achieve a safe, climate-resilient, and prosperous delta with a mission to ensure long-term water and food security, economic growth, and environmental sustainability, effectively reducing vulnerability to natural disasters and building resilience to climate change. A total of 80 projects are planned to be implemented with USD 37 billion investment, while 34 projects are identified as climate-sensitive.	Bangladesh Delta Plan 2100 listed 80 projects for implementation. A thorough review of the proposed projects would help identify their resemblances to the SCP. Such an analysis would help advocacies for the implementation of SCP projects, if any. The Bangladesh Dela Plan is said to be a living document, hence there is always a scope for integrating SCP.

2.8. Broadening NDC Scope for GHG Emission Reduction through Integrating SCP – Outcomes of the Consultations

The NDC is the building block of the Paris Agreement that must be updated once in five years with more ambitious emission reduction targets, consistent with theAgreement's objective of limiting the global average temperature rise to 1.5 degrees Celsius by the end of this century. While NDC targets are voluntary and non-binding, countries are obligated to report their implementation progress to the United Nations Framework Convention on Climate Change (UNFCCC). This reporting requirement encourages countries to be measured and strategic in setting their targets. Bangladesh has reaffirmed its commitment by expressing intent to implement the contributions outlined in its enhanced NDC submitted in 2021.

Given the focused nature of NDC reporting, only sectors with established baseline greenhouse gas emissions data and well-functioning institutional and technical systems for data collection, analysis, and reporting were considered. As one expert involved in the NDC process explained, these criteria ensured the inclusion of sectors that could reliably contribute to transparent and verifiable reporting.

Looking ahead, Bangladesh is expected to progressively expand its NDC scope toward an economy-wide emission reduction and resilience building strategy. This will require incorporating additional sectors that are adequately prepared with baseline emission scenarios and institutional frameworks for data management and reporting. Achieving this goal will depend on sustained, long-term investments in human resource development and institutional capacity building.

Although sectors such as ready-made garments, textiles, and agricultural supply chains hold potential for inclusion in future NDC cycles, their participation is contingent on the availability of accurate emissions data and demonstrated readiness for monitoring and reporting. As noted by an official from the Department of Environment, many industries, particularly in the garment sector, are gradually adopting more sustainable practices, including reduced energy and water use and partial reliance on solar energy. However, bringing these sectors under the NDC framework will require careful consideration based on data readiness and implementation capacity.

2.8.1. Exploring SCP-linked emission reduction potentials

As stated earlier and reiterated in stakeholder discussions, key officials at the Ministry of Environment, Forests and Climate Change and the Department of Environment are not fully convinced about promoting voluntary emission reductions in sectors where considerable effort is required to measure emission reduction outcomes. Although Sustainable Consumption and Production, or SCP, holds significant potential to address multiple planetary crises and deliver development benefits, it has not yet emerged as a priority area for voluntary emission reduction in Bangladesh. This situation is particularly evident because the country has not yet developed baseline data for SCP indicators, such as those under Sustainable Development Goal 12. As a result, SCP is not directly mentioned in Bangladesh's NDC. Some related measures are included, but only under the conditional targets, which depend on the availability of financial and technological support from international sources.

Given this policy barrier, several stakeholders have proposed integrating SCP into the Non Market Approaches identified under Article 6 of the Paris Agreement. Of the two options available for achieving emission reduction targets, namely Market Mechanisms and Non Market Approaches, the Market Mechanisms refer to the cooperative strategies outlined in sub articles 6.2, 6.3 and 6.4. These allow participating countries to voluntarily engage in emission reduction activities and use Internationally Transferred Mitigation Outcomes (ITMOs) within a transparent and accountable system supported by a robust reporting structure. In comparison, Non Market Approaches, as defined in Article 6.8, offer greater flexibility in terms of accounting and reporting requirements.

These Non Market Approaches could be effectively used to promote the inclusion of SCP-related interventions within Bangladesh's climate commitments. Their flexible structure is suitable for activities that focus on development benefits and integrated outcomes that are not easily captured through traditional carbon accounting.

Additionally, many stakeholders have emphasised the importance of creating a national framework for carbon market development and trading. Since the current structure of NDCs typically reflects a cautious and government-led approach to setting and implementing emission reduction targets, a functional carbon market could help increase ambition. It would also open up opportunities for private sector engagement in emission reduction through carbon trading and enable bilateral cooperation through structured agreements supported by corresponding adjustments.

2.8.2 Establishing a framework for national carbon market development

Several stakeholders highlighted the importance of establishing a comprehensive mechanism or framework for developing a national carbon market and enabling carbon trading. Bangladesh's NDC also places emphasis on promoting carbon financing as a strategy to incentivise emission reductions, particularly from industrial sectors. These sectors currently account for approximately 30% of total greenhouse gas emissions under a business-as-usual scenario, primarily due to energy consumption.

According to the NDC, industries such as ready-made garments and textiles, steel, cement, and fertiliser production are among the largest consumers of industrial energy. The ready-made garments and textiles sector alone is responsible for nearly 10% of total national energy consumption. Other greenhouse gas-intensive manufacturing sub-sectors, often classified as hard to abate, including chemicals such as plastics and fertilisers, construction materials such as cement, steel, glass, and aluminium, as well as light manufacturing and small and medium enterprises, could also make substantial contributions to emission reductions. This potential, however, depends on their ability to identify feasible decarbonisation pathways and implement them with adequate technological and financial support.

In this context, voluntary carbon markets are emerging as a growing source of green finance. These markets offer a valuable opportunity for private investment in low-carbon development. As voluntary carbon markets are open to participation from all countries, Bangladeshi companies are eligible to access them. This access creates a unique opportunity to channel climate finance into industrial sectors, supporting their transition towards more sustainable and climate-resilient operations.

2.8.3. Facilitating private sector engagement in SCP

The private sector in Bangladesh holds untapped potential in driving SCP implementation. Nonetheless, several systemic challenges persist, in particular weak regulatory oversight, limited environmental accountability in business operations, and overlap of political and business interests that inhibit strong governance.

Despite these challenges, a number of high-performing businesses, particularly within the ready-made garments and textile sectors, have begun adopting more sustainable production practices. These efforts include reducing energy and water consumption and installing solar panels to partially meet their energy needs. However, these actions are largely driven by external pressures rather than internal commitments to sustainability. In most cases, businesses have taken these steps as a response to power shortages or in order to comply with the environmental and climate-related standards imposed by international buyers, particularly from Europe.

Historically, the ready-made garments sector has adhered to various safety and environmental compliance requirements. In recent years, the compliance landscape has expanded to include climate-related criteria such as the percentage of green energy used, the adoption of green technologies, and implementation of energy efficiency measures. While these requirements are driven by external stakeholders, they are nonetheless critical and should be acknowledged as catalysts for change.

The Sustainability Head of H&M in Bangladesh remarked that these practices are primarily motivated by the need to address power shortages and meet buyer compliance rather than by a proactive commitment to sustainable consumption and production. However, these initiatives could be strengthened and scaled up through national guidelines and financial support to facilitate a broader transition to sustainability.

The ready-made garments industry in Bangladesh is poised to face dual challenges in the coming years. On one hand, it must remain competitive in the absence of the Generalised System of Preferences for exports. On the other hand, it will be required to meet increasingly stringent carbon footprint standards to avoid carbon border adjustment taxes. These taxes are calculated based on the greenhouse gas emissions associated with the production processes in the country of origin. As consumers and international buyers shift towards carbon-neutral products, producers and suppliers in Bangladesh must also transition towards sustainable consumption and production, adopt circular economy principles, and improve operational efficiency in order to remain competitive in the global market.

2.8.4. Leveraging non-climate strategies for SCP mainstreaming

From the Bangladesh Climate Prosperity Plan 2022 to 2041, to the Bangladesh Delta Plan 2100, the Integrated Power Sector Master Plan 2023, and the Energy Efficiency and Conservation Master Plan 2016, all of these strategies incorporate elements of sustainable consumption and production. These plans have significant potential to generate co-benefits that support a low-carbon development pathway, as emphasised in the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) of 2009, the Mujib Climate Prosperity Plan 2030, the Bangladesh Delta Plan 2100, and the national goal of increasing the share of renewable energy from the current 3.6–40% by 2041.

Although Bangladesh's NDC does not explicitly mention sustainable consumption and production, there are opportunities to include SCP in the next updated version expected in 2025. Furthermore, there is a strong policy basis for integrating SCP into the country's Long-term Strategy for decarbonisation, which has already been initiated, as well as into the upcoming Ninth Five Year Plan covering the period from June 2025 to June 2030.

Key Recommendations from stakeholder consultations

It was the opinion of many of the stakeholders consulted in this process that the sectors responsible for the highest levels of GHG emissions ('high-emitting sectors'), like Ready-made Garments, Brick Manufacturing, Agriculture (Irrigation and Supply Chain), Cement Industries, and Residential Energy Use should be included in the upcoming NDCs, but on the condition of meeting emission reduction targets, provided that financing and technology support ensure their readiness for emissions reductions. There is immense potential and scope to foster SCP in those sectors/industries, and they could be integrated and supported for SCP practices by other means and beyond the mandate of NDC.

Given the lack of understanding of SCP, the private sector is not motivated to conform to SCP except at a basic level to meet compliance requirements. SCP practices could be scaled up in non-exporting private sector industries with national guidelines and financing arrangements. It is important to note that many small-scale RMGs do not export directly, they either sub-contract with big industries or export through them.

The national plan and policies are not SCP-inclusive, although there are elements of SCP in all the plans. A national SCP strategy could facilitate integration/mainstreaming of SCP practices into the relevant plans. This also would guide the private sector with the required institutional, technological, and financial support.

SCP-linked emission reductions could be aligned with non-market-based approaches, termed 'Non-market Approaches-NMAs' in Article 6 of the Paris Agreement. While the Market Mechanism requires a transparent and robust accounting/reporting system, namely the market-based mechanism, non-market approaches are flexible in terms of accounting and reporting.

A mechanism/framework for national carbon market development and trading should be developed. An effectively functioning national carbon market could scale up NDC by engaging the private sector in carbon trading, and by creating an enabling marketplace for bilateral agreements on emissions reduction and corresponding adjustments.

Institutional coordination and financing, as well as an enabling regulatory framework, are necessary, for example the development of a National SCP strategy as the legal basis for institutionalising and integrating SCP into NDC and other relevant plans.

2.8.5. Developing a National SCP Strategy with institutional embedding

Bangladesh is at a critical juncture, where SCP integration is no longer just an aspiration: it has become foundational to meeting climate goals and ensuring economic competitiveness. A dedicated SCP strategy, institutional coordination, reliable data systems, and robust financing frameworks will enable a systemic shift toward a circular, low-carbon economy that is not only resilient but also aligned with global climate and trade standards.

Strategic and institutional integration: the development of a national SCP or circular economy strategy is essential to embed SCP principles into national planning and regulatory frameworks. This strategy should be legally anchored to ensure long-term policy continuity and guide implementation across sectors, serving as a reference for SCP-related climate actions.

To operationalise this strategy, SCP focal units (or 'wings') should be designated within key ministries such as industry, transport, energy, and agriculture. A cross-ministerial coordination mechanism should be established to link these sectoral entities with the Department of Environment (DoE), the Ministry of Environment, Forest and Climate Change (MoEFCC), and the private sector. Stakeholders have emphasised the need for a coherent SCP governance framework to harmonise planning, execution, and monitoring efforts across all relevant actors.

Addressing data and monitoring gaps: a major barrier to effective SCP integration is the lack of baseline data on emissions and material use in key sectors. This limits the ability to design targeted interventions and monitor their impact. To address this, Bangladesh should establish GHG and material footprint baselines for priority sectors such as agriculture, textiles, and light industry. The Department of Environment should be tasked with tracking SDG 12 indicators, creating consistency between sustainability and climate agendas.

In addition, a technical unit within DoE or MoEFCC should oversee SCP data systems and align emissions accounting with IPCC guidelines. A dedicated monitoring, reporting, and verification (MRV) system should be developed to track SCP-related interventions within the NDC framework.

Financing and enabling mechanisms: the transition to SCP-linked low-carbon development requires substantial financial and technical support. Key actions include leveraging multilateral climate finance (such as GCF and GEF), exploring blended finance models and voluntary carbon markets, and promoting public-private partnerships to co-develop and scale resource-efficient and circular solutions. Moreover, Bangladesh can align with non-market mechanisms under Article 6.8 of the Paris Agreement, which offer opportunities for international cooperation beyond carbon trading.

3. Concluding remarks

The analytical work conducted for this white paper, including national consultations and sectoral assessments, highlights a clear opportunity to broaden the scope of Bangladesh's NDC 3.0 by systematically integrating Sustainable Consumption and Production (SCP) policies and strategies. There is strong stakeholder consensus that materials use, resource efficiency, and upstream mitigation interventions, particularly in emission-intensive sectors such as textiles, agriculture, cement, construction, and municipal waste, can generate substantial climate benefits if formally recognised within national climate frameworks.

The findings emphasise that many SCP-related activities are already under way through various donor-funded projects and public-private partnerships. Nonetheless these activities remain largely unaccounted for in the official architecture of the NDC and its reporting system. Integration of such actions into the NDC would not only legitimise and scale these efforts but also enhance access to climate finance and technology cooperation. Additionally, integration would create stronger alignment with international mechanisms, such as Article 6 of the Paris Agreement, by creating conditions for both market-based and non-market collaboration.

The analytical work done here further underscores the importance of embedding SCP in the next NDC through targeted actions: mapping high-impact sectors and value chains, establishing emissions and material-use baselines, and strengthening institutional capacity for cross-sectoral coordination. The lack of sector-specific data and baseline indicators remains a critical barrier. Addressing these issues will require investment in technical monitoring systems, development of SCP-relevant indicators (aligned with SDG 12), and the integration of lifecycle assessment tools into sectoral planning and climate MRV frameworks.

To advance SCP-based mitigation within NDC 3.0, Bangladesh will need to strengthen institutional coordination and ensure that relevant ministries, agencies, and non-state actors are aligned around a shared implementation framework. High-level political backing and structured cross-sectoral dialogue will be essential to build coherence between climate actions and broader development priorities. Enhanced coordination will also create opportunities for more effective engagement with the private sector, financial institutions, and international partners. Embedding SCP considerations into planning instruments, such as public investment strategies, procurement policies, and sectoral action plans, can help institutionalise these approaches and accelerate their uptake across the economy.

Ultimately, advancing SCP within NDC 3.0 in Bangladesh will require clear policy mandates, predictable funding streams, and sustained institutional coordination. With the right enabling environment, Bangladesh can leverage SCP not only as a means of emissions reduction, but as a catalyst for resource-efficient, low-carbon economic transformation that will be both nationally relevant and globally aligned.

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