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Governance for Green Growth in Bangladesh:
Policies, Institutions, and Political Economy

Bushra Ferdous Khan

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List of Abbreviations

BCCTF	Bangladesh Climate Change Trust Fund
BELA	Bangladesh Environmental Lawyers Association
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BWDB	Bangladesh Water Development Board
CETP	Centralised Effluent Treatment Plant
CSO	Civil Society Organisation
DoE	Department of Environment
DPHE	Department of Public Health Engineering
WASA	Water Supply & Sewerage Authority
ECA	Ecologically Critical Areas
ECC	Environmental Clearance Certificate
ECR	Environmental Conservation Rules
EIA	Environmental Impact Assessment
ERD	Economic Relations Division
ETP	Effluent Treatment Plant
FDI	Foreign Direct Investment
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GED	General Economics Division
GGBP	Green Growth Best Practice
GHG	Greenhouse Gas
GNNCSDS	Global Network of National Councils for Sustainable Development and Similar Bodies
IFC	International Finance Corporation
IIED	International Institute for Environment and Development
LGD	Local Government Division
LGED	ocal Government Engineering Department
MAPS	Mitigation Action Plans and Scenarios
MoEF	Ministry of Environment and Forests
MoI	Ministry of Industry
MoLGRDC	Ministry of Local Government, Rurak Development, and Cooperatives
MoTJ	Ministry of Textiles ad Jute
MoWR	Ministry of Water Resources
NEP	National Environmental Policy
NGO	Non-governmental Organization
NGTA	National Green Tribunal Act

NILG	National Institute of Local Government
NRM	Natural Resource Management
NSDS	National Sustainable Development Strategy
OECD	Organization for Economic Cooperation and Development
PaCT	Partnership for Cleaner Textiles
PRSP	Poverty Reduction Strategy Paper
RMG	Readymade Garments
SDG	Sustainable Development Goal
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WARPO	Water Resources and Planning Organization
WCMC	World Conservation Monitoring Centre

Executive Summary

Bangladesh, the country once famously dubbed a 'basket case', is now recognised as a 'development surprise'. Weaknesses of its governance infrastructure have not stopped it from upgrading to the status of a lower-middle income nation or registering impressive improvements in a number of social development indicators. The country is developing, and developing fast.

Its economic growth, however, has been accompanied by deterioration of its environment. Time is ripe that the country focuses on pursuing the path of green growth which would essentially mean adopting practices to ensure that its economic development is attained in an environmentally friendly manner. There are several vexing questions around the capacity of designated institutions – in particular, the gap between their official mandates, and the ground-reality of their functioning.

For instance, how can the country of 163 million people achieve green growth when its prime environmental watchdog, Department of Environment (DoE), is staffed with only 735 people? The first answer to that is responsibility of environmental conservation should be everybody's business, not just of DoE and broadly of only Ministry of Environment and Forests. A review of international best practices in green growth governance suggests that green growth is best actualised with central planning authority of a country steering cross-ministerial collaboration towards its attainment. In the context of Bangladesh, Planning Commission would be the most appropriate institution to steer the multi-ministerial collaboration required for achieving green growth as it has the mandate to bring all the relevant ministries on the same table towards implementation of Five Year Plans and other policy documents. In the longer term, to overcome the problem of incoherent and overlapping assignment of responsibilities, allocation of business of different ministries, divisions, departments, and agencies may have to be revised.

Policy reforms required for mainstreaming green growth in Bangladesh cannot be realised unless the need for green growth is aligned with the foremost concerns of those making policies for the nation. As it has been seen in many countries around the world, green growth is best sold to political elites tied in with already well-established national priorities with strong political buy-in. In the case of Bangladesh, avenues for such alignments exists in tying green growth to national priorities like poverty reduction, climate change adaptation, pollution abatement, and employment generation.

But bringing the political elites on board with the green growth agenda will be only part of the task, the private sector will need to be on board with it too. Given the strong preference for market-led growth among the policy makers, and sizeable political influence of the business communities, green growth in Bangladesh can most effectively be achieved if a convincing business case can be made for it. Requiring private sector to disavow their 'brown' modes of operations in favour of environment friendly ways will cost them money and in certain cases will even impact their profitability negatively in the short term. Of all the relevant stakeholders with a role to play in greening Bangladesh's growth, private sector is a particularly powerful one with the strongest reasons to oppose reforms required towards green transformation. However weak, Bangladesh currently has laws for penalising industrial units for environmentally harmful practices, but so far the country has not garnered any visible success in strictly enforcing them. The best bet for mainstreaming green growth in Bangladesh, thus, would be through introducing market-based policy instruments that rewards the private sector for adopting green practices to organically steer them away from environment damaging acts and modes of operations.

Other key stakeholders-namely judiciary, local government, non-government organisations (NGOs), civil society, and international community-will have roles to play too: judiciary will have to ensure deliverance of environmental justice and conformance by all stakeholders to laws of the land designed to protect the environment; local government will have to support the central government implement its high-level green

growth vision on the ground; NGOs could be utilised to support the government and private sector in delivering green solutions and green finance to rural regions; civil society organisations can provide support in creating public advocacy for green growth; international donor community can provide the government technical support and official development assistance (ODA) for green growth for activities; and international private sector can be utilised as source of green foreign direct investment (FDI) and impact investments to Bangladeshi private sector.

This is easier said than done, as creating an enabling environment for these stakeholders to deliver on their roles for promoting green growth to full potential will require extensive regulatory reforms and strategy building exercise. The Government of Bangladesh will have to:

- Formulate a high-level National Inclusive Green Growth Strategy, accompanied by sectoral Green Growth Action Plans laying down concrete, short-term objectives through the initiative of General Economic Division of the Planning Commission.

- Review the extent of local government's engagement in the Environmental Clearance Certificate (ECC) issuance process and train local government representatives through National Institute of Local Government in adopting sustainable waste disposal and recycling practices in their vicinity, and in preparing Master Plan for their jurisdiction factoring in environmental conservation. Further, given the chronic shortage of manpower DoE struggles with, the task of regular inspection of ETP operation by toxic wastewater producing sectors may be delegated to local government institutions.

- Amend the Environment Court Act 2010 to give citizens direct access to the Environment Courts without first having to register their complaints with DoE, create positions for technically competent experts in the courts' adjudication panel, and give it authorisation to try cases involving environmental regulations stipulated in all Acts and Rules of the land.

- Revise the Environment Conservation Act 1995 and Environmental Conservation Rules 1997 to impose adequate monetary penalty for violation of environmental regulations, make the procedures involving conducting Environmental Impact Assessment and issuing ECC more rigor, and strengthen public participation in the environmental decision making process.

- Allow the commercial banks, in consultation with Bangladesh Bank, to disburse the stipulated quota of 5% direct green finance through agent banking so that the expertise of NGOs in serving the rural communities of the nation can be leveraged in greening the growth of rural regions.

Overall, the key to breaking away from the unsustainable path of economic growth in Bangladesh would be achieving consensus towards green transformation based on sophisticated balance of incentives that is grounded into the socio-politico-economic reality of the nation.

1 Introduction

1.1 Context of the Study

Bangladesh has experienced a sustained trajectory of economic growth over the last decade, and continues to stay well ahead of many other developing economies in reducing poverty. This reflects in its position on the global Human Development Index. Bangladesh, currently a lower-middle income country as per the World Bank's classification, aspires to become a middle-income nation by 2021.

Amidst this focus on achieving economic growth, environment and natural resources have unfortunately been neglected. Growth came at the expense of profound environmental and social impact, particularly from key manufacturing sectors. The country ranks amongst the lowest in the global Environmental Performance Index. The impact of this neglect are evident in the rising health costs due to air and water pollution, and degradation of some of the most productive and valuable eco-systems like wetlands, rivers, soil, coastal and marine estuaries.

Of late, there has been a resolve to safeguard the environment from further degradation, at least as read in high-level policy documents. For instance, the Constitution of Bangladesh now mentions, as a priority action, safeguard of the environment, biodiversity and natural ecosystems for the generations to come. A National Sustainable Development Strategy (NSDS, 2013) is now in place. The country is in the process of mainstreaming Sustainable Development Goals (SDG) in the planning process. The Seventh Five-Year Plan (2015 – 2020) emphasises green growth while pursuing sectoral growth and development.

In reality, however, many of these documented sustainable development priorities are yet to be translated into concrete action plans that can be operationalised in the pursuit of economic growth. Green growth, conceptualised as the path to economic growth that aims to minimise environmentally detrimental effects of economic operations, remains beyond reach owing to challenges pertaining to institutionalisation and weak enforcement of policies and other legal documents.

This study conducts an assessment of the regulatory regime in place in Bangladesh as it impacts the potential to pursue a trajectory of green growth. It focuses on the policies, institutions, and political economy that have a direct bearing on promoting green growth.

Specific objectives of this study are to:

(a) Review the public policies, institutions, and politico-economic aspects of green growth governance in Bangladesh and identify challenges to effective governance therein.

(b) Offer recommendations for streamlining the drawbacks by identifying appropriate governance entry points to promote green growth in Bangladesh.

1.2 Operationalising Core Concepts Used in This Paper

The core concepts concerning this study – Green Growth and Governance– lack universally accepted definitions. It is therefore imperative to operationalise these concepts for the purpose of this study. Below, we first explain what we take the two key terms to mean in this study, and then outline how they come together to construct the notion of Governance for Green Growth in this paper.

Green Growth: Green growth is the sustainable path to economic growth that aims to minimise the negative environmental externalities of economic operations. Promoting green growth involves multiple actors. These include those who pollute the environment, those who make policies aimed at preventing or

reducing environmental pollution, and those who are affected by the pollution. This covers national, regional and local government; organisations from the national and international research communities; non-governmental organisations (NGOs); local and multinational corporations; and a huge range of local communities and citizens. The perceptions of and policy responses to green growth are closely related to individual or societal outlooks, consumption patterns, and the influence of regulations, price signals, media coverage and awareness-raising campaigns.

Governance: One relatively simple articulation of the term governance – that comes in handy for the purpose of this study - is as follows: *"the manner in which power is exercised in the management of a country's economic and social resources for development"* (World Bank, 1992). Further to this articulation, Khan & Ahmad (1997) and Khan (2003) explicate the concept by identifying the following characteristics:

- There is acceptance of the fact that governance involves the exercise of authority or power.
- The process through which authority is exercised and with what intent is important.
- The roles, interrelations and interactions among politics, economics, administration and law in a given society are of utmost importance for understanding governance.

Accordingly, we view governance as a process of exercising authority is setting national intent and actualising them through institutions as enabled by interactions among political, economic, social and administrative elements of a society. Here three integral aspects of governance become particularly significant:

> **Policy:** as the embodiment of national intent;
> **Institution:** as the structure that underpins the roles of the governing elements;
> **Political Economy:** as the environment created by the interplay between politics and economics that motivates the formulation of policies and dictates the ability of institutions to implement them.

This study analyses green growth governance in Bangladesh from the three aspects mentioned above.

Governance for Green Growth: Now that the key terms underpinning the study- green growth and governance- have been operationalised, we may elaborate upon what we mean by Governance for Green Growth in this paper.

Governance for Green Growth is suggested to mean formulating policies and implementing them through institutions as enabled by the political economy of a nation to steer its economic growth in an environmentally sustainable path. Figure 1.1 illustrates this:

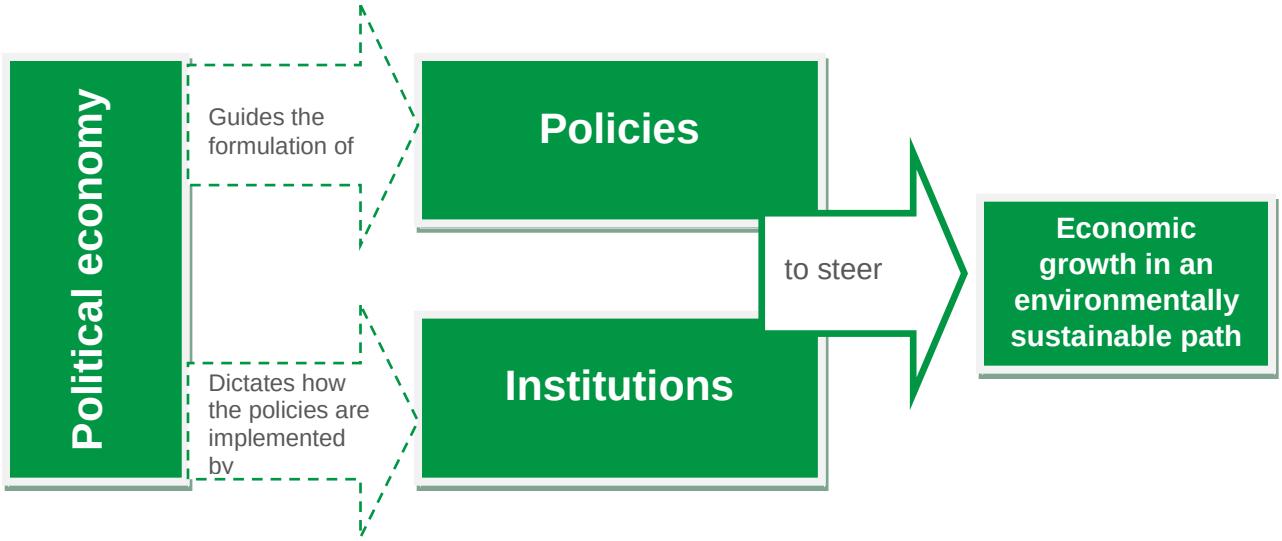

Figure 1.1: Conceptual Framework of Governance for Green Growth

An environmentally-conscious economic growth strategy is not a natural outcome: it usually needs to be consciously "steered" (Meadowcroft, 1997) by governments through policies and institutions that set out and implement green regulations. Environmental governance and management mechanisms are thus central to the discussion in this paper as the effectiveness and efficiency of governing institutions in establishing the rule of law related to environmental policies set the ground for achieving economic growth in a green manner.

1.3 Study Approach and Research Design

This study is based on extensive review of literature and information gathered through a focus group discussion (FGD) conducted at the Centre of Budget and Policy, and 21 key informant interviews with senior public officials, academics, and practitioners. While conducting the interviews and FGD, formal and rigidly structured queries were avoided; instead a simple check list of topics guided the discussions. The list of the key informants, including participants in the FGD, appears in Annex 1.

In following the operational definitions, issues pertaining to governance for green growth have been examined in this paper from three aspects: policies, institutions, and political economy. In Chapter 2 the current framework of green growth governance in Bangladesh is first analysed, and based on the analysis recommendations are made for strengthening governance for green growth in Bangladesh at the national level. In suggesting the recommendations a 'good fit'[1] approach to the country context is adopted. We do not seek to reiterate what should ideally be done, but rather what can practically be done against the backdrop of socio-politico-economic reality of Bangladesh. In Chapter 3 in-depth review of a key polluting sector, textiles manufacturing, is presented, and through Chapter 4 the paper in concluded.

[1] Institutional and Governance Reviews of the World Bank explains the distinction between "best practice" approach and "best fit" approach: *"In the best-practice approach, problems in formal institutional arrangements are highlighted, and advice and incentives to address the problems are provided...A "best fit" approach, by contrast, asks, "What would work here?" "* (World Bank, 2002)

2 Governance for Green Growth in Bangladesh: Present State and Way Ahead

After the general contextual setting presented in the preceding chapter, this chapter presents a review of key policies, institutions, and overall political economy at work in Bangladesh as they relate to green growth and draws some strategic implications for promoting green growth in future based on the review. The chapter concludes by providing some high-level recommendations for strengthening governance mechanisms for greening Bangladesh's growth. The analytical framework used in this chapter is depicted in Figure 2.1:

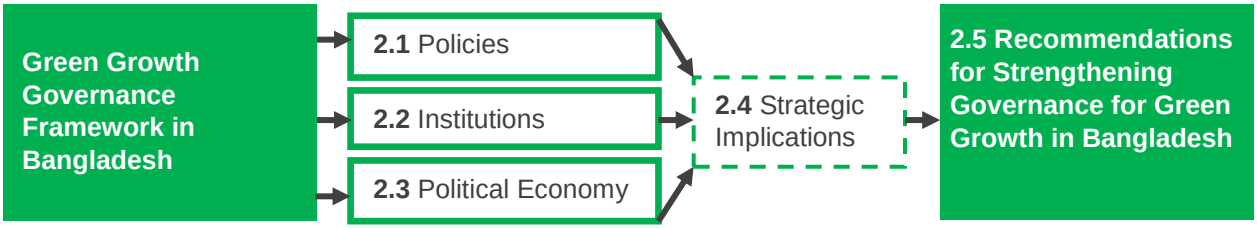

Figure 2.1: Analytical Framework Adopted for Studying Green Growth Governance

2.1 Policies

A heightened degree of interest in environmental issues like industrial pollution, climate change implications, physical degradation of the natural resource base, and ineffective enforcement of environmental laws has started to surface in Bangladesh in recent years. While the issues relating to climate change are reasonably better covered, ideas pertaining to green growth remain relatively unexplored or inadequately addressed at the national and especially in sectoral policy documents (MacGregor, et al., 2016). There have been some attempts, however, to explore the inter-relationship between environmental sustainability and development at national policy levels, and limited resultant policy changes under the influence of *"transformations in ideas, knowledge, actors and incentives"* (Alam, et al., 2013) within national and international quarters (Alam, et al., 2013, Shaw, et al., 2013).

As the apex embodiment of policies and regulations, the Constitution of Bangladesh (vide Article 18A) maintains and pronounces that *"protection and improvement of the environment"* and *"preservation of the natural resources, bio-diversity, wetlands, forests and wildlife for the present and future citizens"* shall remain the State's obligation in all circumstances.

The National Environmental Policy (NEP, 1992) further provides high-level environmental management guidelines for key sectors - agriculture, industry, health, energy, water, land, forest, fisheries, marine, transport, housing, population, education, and science and technology- and lays down countrywide priorities for protection, management, and improvement of the environment. However, only a number of the visions laid out in the document have been enshrined in law till date.

The NEP was followed by enactment of the Environmental Conservation Act (1995[2]), and issuance of the Environmental Conservation Rules (ECR, 1997) – both of which provide insufficient concrete obligations

[2] The act has been amended in 2000, 2002, and 2010.

relating to environmental management and stop short of setting specific standards, parameters, and permissible emission levels for issuing industrial units Environmental Clearance Certificate (ECC).

A high-level policy recognition that environmental protection is an economic prosperity concern for the developing nation can be traced back to the first Poverty Reduction Strategy Paper (PRSP). Bangladesh's first PRSP, published in 2005, identified environmental degradation as one of the key reasons causing and perpetuating poverty in the nation and emphasized the need for tackling environmental problems to stimulate economic well-being of the poor.

In recent years, a number of Government of Bangladesh's core plans and strategies have come to address various aspects of green growth. The Seventh Five-Year Plan (2015 – 2020) emphasises promotion of green growth and sustainable development. It recognises negative externalities of industrialisation as embodied by decline in biodiversity, deforestation, destruction of wetlands and fisheries, soil nutrient depletion, desertification and salinity intrusion. The plan acknowledges that there is a 'window of opportunity' for halting the process of environmental degradation through pursuing strategic actions that generate green growth and minimise the adverse effects of climate change.

The Perspective Plan of Bangladesh (2010–2021), popularly known as Vision 2021, sets out a long-term development strategy and seeks to balance environmental conservation against the national priorities of economic growth and poverty reduction. It seeks to promote environment protection, climate change preparedness across government policies to benefit the poor.

The NSDS (2013) states its goal as *"ensuring sustained economic growth, environmental protection and social justice, which implies improvement of livelihood options of the people, reduction of poverty, ensuring wise use of natural resources, good governance and people's participation"*. The National Adaptation Program of Action (2005 and revised 2009); and the Bangladesh Climate Change Strategy and Action Plan (BCCSAP, 2009) include provisions on reducing emissions of green house gases (GHGs) through enhanced efficiency in the usage of natural resources and conventional energy, low carbon energy dimensions of development intervention design; etc.

In a major shift for a sustainable development path, the new Industrial Policy (2016) has dedicated an entire section on environment friendly industrialisation and pledged to go for industrialisation that does not exert pressures on natural resources. It has insisted on mandatory requirements of installing Effluent Treatment Plants (ETPs) and Central Effluent Treatment Plants (CETPs) for industries that produce toxic wastewater and implied provisions of punitive measures against the offenders. The policy further encourages adoption of the 3R principle (Reduce-Reuse-Recycle) for all industries and discourages activities that use agricultural land for industrial purposes.

This chronology of high-level policies in Bangladesh is an encouraging sign of the priority accorded to environmental sustainability and green growth. However, the concept of green growth remains unclear both at the policy and operational levels, and there is no consensus as to its specific attributes and nature at the sector level leadership. Government officials, working at operational levels, do not have a common understanding of green growth issues and the role they could play in the design and implementation of green policies. A review of international best practices in green growth governance suggests that nations that have been making demonstrable success towards greening their economic growth have all had a specific Green Growth Strategy laid out (GGBP, 2014)[3]. The formulation of a National Inclusive Green Growth Strategy for Bangladesh would be useful in providing guidance to set priorities concerning institutional reforms required for greening the nation's economic growth.

[3] Cambodia, Chile, Colombia, Ethiopia, Mozambique, Rwanda, Singapore, South Korea, Vietnam are among the countries that have formulated Green Growth Strategy.

At this point, a focus on the dynamics of the relevant policy making process and stakeholder participation may be imperative. Most policies are formulated in Bangladesh following a top-down approach at the ministry level in a process led by the bureaucrats and subject experts. Even though limited amount of stakeholder participation is observed in some cases, participation of parliamentarians and the beneficiaries in the policy formulation process is usually weak. International community's influence in the policy making process is also evident, which on occasions supersedes nationally generated policy demand, resulting in limited political ownership of such internationally influenced policies and in effect their half-hearted implementation (Alam, et al., 2013).

Development literature on Bangladesh further suggests that in order to mainstream green growth as a cross-cutting perspective for all relevant policies, it is imperative to develop a broad constituency of key stakeholders who understand and appreciate greening considerations, and to achieve a balance among the stakeholders' interest and relative influence. Also, in consideration of the fact that green growth is rapidly expanding as new evidence creates knowledge, it is important for national initiatives to be periodically updated to learn from international best practices in green growth governance.

2.2 Institutions

Ministry of Environment and Forest (MoEF) is the apex institution of the government with the broad mandate to oversee environmental management issues and enforcement of laws and regulations toward safeguarding natural resources and ecosystems. Several other institutions representing the government, private sector, and civil society have a role to play in greening the economic growth of Bangladesh. Here we discuss some of the most relevant public institutions that are involved in formulating and implementing policies conducive to environment friendly economic growth.

The **Planning Commission** of the Ministry of Planning has the mandate to direct inter-sectoral coordination amongst ministries. It is responsible for setting short, medium, and long term goals and formulating policies towards their achievement. The Planning Commission also plays a powerful role in guiding allocation of resources towards implementation of policies at sectoral level.

The Planning Commission also houses the **Sustainable Development Monitoring Council** that has been established to ensure effective implementation and monitoring of the NSDS. Chaired by the Planning Minister, the council is comprised of wide range of government, non-government and academic experts. The General Economic Division (GED) of the Planning Commission acts as the Secretariat to the Council. Particularly relevant to green growth agenda is the fact that, Sustainable Economic Growth[4], Protection and Improvement of Urban Environment[5], and Environment and Natural Resource Management[6] are three of the five strategic priority areas the council has identified to pay special attention to right from its inception.

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[4] **Sustainable Economic Growth:** *"Implementation of different strategies suggested under sustained economic growth will ensure sustained and accelerated growth without compromising environment sustainability and enhancing social equity. It will also facilitate poverty reduction through employment generation, bring effective utilization of energy and mineral resource, greening manufacturing industries, promotion of export, and enhance remittance through creating job in international market."* (GNNCSDS, 2017)

[5] **Protection and Improvement of Urban Environment:** *"Provide direction for implementation of different strategies to improve urban environment."* (GNNCSDS, 2017)

[6] **Environment and Natural Resource Management:** *"Provide guidance to ensure environmental protection for humans, ecosystems and resources which promotes conservation, augmentation and efficient utilization of the natural resources."* (GNNCSDS, 2017)

The **Finance Division** and **Economic Relations Division (ERD)** of the **Ministry of Finance** have particularly relevant roles. The Finance Division is responsible for preparing, analysing, and implementing fiscal policies and budgets-functions that are germane to implementing Climate Fiscal Framework and stimulating green growth in the economy through fiscal incentives. The ERD is responsible for mobilising external support for the socio-economic development of Bangladesh. Currently ERD serves as the focal point for assessing the need of and devising strategies for securing climate change adaptation fund from international sources and in future can be expected to play a critical role in securing green finance from international sources for Bangladesh.

The **Ministry of Local Government, Rural Development and Cooperatives (MoLGRDC)**, which is responsible for overseeing all local government authorities, stands to play an important role in implementing green growth initiatives and currently is a major means of distributing climate change related allocations at local level through its **Local Government Division (LGD)**. LGD, with its reach up to the grass-root level, has the potential to be able to significantly influence green growth at the sub-national level, since it is mandated to oversee delivery of basic services like water supply, sanitation and sewerage facilities, waste management etc.

Green growth cannot be realised without the supply of green finance. The central bank, **Bangladesh Bank**, has been specially committed to supply green finance in the economy to fund the country's green growth. Bangladesh Bank has set up a US$25 million refinance scheme for Renewable Energy and Environmentally Friendly Financeable Sectors, and a US$ 200 million Green Transformation Fund for Export Oriented Textile and Leather Sectors. The central bank further requires every commercial bank and financial institutions under its jurisdiction to disburse 5% of its total loaned amount to green projects.

The **MoEF** has the most important role in supporting the mainstreaming of environmental issues in sectoral activities undertaken by other ministries and departments. Established in 1989, the MoEF is the lead agency of the government to formulate policies, laws, regulations and guidelines towards ensuring adherence to environmental safeguards while sectoral development programmes are executed. It is also entrusted to regularly oversee and monitor development interventions where stakes are high from environmental perspectives. It provides higher level policy guidelines from time to time to the agencies under it for enforcing the laws against environmental offenders. The ministry has a very critical role to play in ensuring the constitutional provisions toward safeguarding the environment, ecosystems, natural resources and biodiversity are observed towards the goal of achieving sustainable development.

The key agency for executing environmental laws under the MoEF is the **Department of Environment (DoE).** It sets environmental rules and standards, issues ECCs, and implements policies related to sustainable development. DoE is also responsible for the management of Ecologically Critical Areas (ECA). Notwithstanding DoE's broad-based mandate, the agency's performance in deliverance of its responsibilities has been constrained by several shortcomings including: shortage of trained and skilled human resources, insufficient technical knowledge and apparatus, generally poor management capacity of ECAs, weak coordination with various stakeholders' agencies that potentially contribute to polluting environment, weak field level presence especially in monitoring environmentally destructive and unsustainable practices, and susceptibility to political and other forms of unscrupulous influence.

Staffing is one of the most constraining institutional limitation DoE has to grapple with. Staffed with only 735 (DoE, 2015) employees, DoE struggles to deliver on all its responsibilities. Along with the quantity,

the quality of its human resources also presents a reason for concern as the department struggles to retain and nurture skilled staff[7].

DoE is responsible for reviewing Environmental Impact Assessments (EIA) and Environmental Management Plans submitted by different projects to grant them ECC – an exercise which remains focused on controlling chemical-based pollution. In screening project proposals and monitoring implementation, the department's capacity to employ a wider eco-system-based perspective, and to tackle broader Natural Resource Management (NRM) and community development issues remains modest.

Further, DoE's capacity to operate with a degree of autonomy and discretionary power remains a concern. A key informant interviewed for the study stated:

"the department remains 'just another' government agency under the control and authority of the MoEF. It is susceptible to daily administrative and political influence of the government and the political party in power..."

The other key agency within MoEF is the **Forest Department**, which administers the country's forest resources and manages public forest lands. Management of protected areas is also a part of the its mandated responsibility. The department traditionally followed a custodial-policing mode of forestry approach that historically resulted in progressive alienation of local communities. There has been a degree of change in this mode of operation within the department in the recent times as reflected in the pursuit of 'social forestry' and 'co-management' approaches. However, the slow pace of bureaucratic reorientation, shortage of technical and skilled staff, poorly motivated managers, outdated policies and regulations, poor enforcement of policies and programs, and weak environment monitoring have continued to be major constraints of this department (USAID 2010, World Bank 2000, Khan 2010, Khan *et al.* 2004).

A **National Environment Council** chaired by the Prime Minister, and an **Executive Committee of National Environmental Council** chaired by the Environment and Forest Minister were established in 1993 to provide policy guidance to line ministries on national environmental issues, and also to ensure collaboration and integration of activities among ministries and agencies (Aminuzzaman, 2010). Additionally, the Planning Commission has the responsibility to oversee and coordinate cross-sectoral and inter-ministerial activities influencing the sustainable use of environment and natural resources. The **Parliamentary Standing Committee on Environment and Forestry** is also entitled to oversee the functions of the MoEF and associated relevant operations.

Even though a reasonably structured institutional framework for environmental governance is in place, policy and functional coordination among the many ministries and agencies, and effective reviews of their performance remain a major challenge. Formally, coordination takes place through the formation of 'steering committee(s)' comprising members from relevant ministries and line agencies. The routine review mechanisms comprise monthly coordination meetings, monthly Annual Development Plan progress review meetings (physical and financial), Implementation, Monitoring and Evaluation Division reviews, and development-partners' mission reviews (for foreign-aided programs). Independent reviews

[7] Baldwin & Calkins (2007) note: *"Unfortunately, the career structure now offered in the environment department is very poor and the opportunity for career advancement is virtually non-existent. This has created a major impact on hiring and retaining scientists, chemists and engineers which are needed...Such a structure acts as a one way sieve which retains the less competent and less motivated staff while releasing the competent and the ambitious who are eager to find more rewarding and challenging work environments."*

are also undertaken occasionally. In spite of these measures, the review mechanisms are weak due to inadequate coordination, limited technical knowhow, little or no citizen engagement and stakeholder participation, and political bias and influence. A relatively weak monitoring mechanism also fails in stopping corrupt and fraudulent practices in the approval and implementation of projects. This has remained a major concern for several of the major relevant institutions. As noted by a key informant interviewed for this study:

"Bulk of the government's climate change fund resources has gone into supporting agri-irrigation projects of the Bangladesh Water Development Board; the relevance of such projects in terms of greening or climatic significance can be questioned; more importantly, while approving these projects, EIAs have either been overlooked or rendered ineffective for all practical purposes. I have been a personal witness to cases where projects were approved on the condition that 'EIA would be done in the future'; what's the point of doing EIA just for ceremonial and procedural purposes, if you have already decided on, and approved the project?"

A critical issue here is the inability of the MoEF to engage with other ministries and agencies over environmental priorities. This means that other agencies of the government tend to pay little heed to comply with environmental safeguard aspects when programmes are designed and implemented. Even when they seek support from the MoEF, the limited technical capacity of the latter becomes a constraint. The MoEF is run predominantly by generalists from the civil service cadres.

Also, the agencies responsible for carrying out EIA seldom seek subject-specific specialist knowledge and expertise – a constraint that cannot be overcome unless significant investment is made in the quality of personnel in these agencies. The issue of limited human resource capacity is particularly relevant at a time when key policy documents such as the Vision 2021 and the Seventh Five Year Plan demand an increase in accountability and transparency and measurable results from these agencies.

2.3 Political Economy

Bangladesh, hailed as a 'development surprise', has achieved most of its Millennial Development Goals and made progress in many socioeconomic fronts in spite of struggling with a wide range of policy and institutional limitations. Bangladesh's performance in achieving such development success, prominently since the early 90s when the country transitioned into a multi-party democracy and embraced widespread economic reforms (Mahmud, Ahmed, & Mahajan, 2008), provides reason to be hopeful that despite the many policy and institutional limitations the country struggles with, it will be able to move towards the path of green economic growth with some country appropriate stimulants in place.

In this section we briefly discuss the political economy at work behind Bangladesh's 'development surprise', and talk about how the relevant politico-economic forces may serve to strengthen governance for green growth in Bangladesh.

2.3.1 Political Economy at Work behind Bangladesh's 'Development Surprise'

Bangladesh's socio-economic achievements against the backdrop of its weak governance framework have been a long-standing puzzle for those studying development. Researchers have attempted to analyse the political economy at work behind Bangladesh's development successes. Webster et. al (2017) argue that Bangladesh's *"political institutions and process, rent management strategies, and the deals environment"* have laid the ground for its economic growth. According to them, economic growth has been possible because of the presence of an ordered deals environment which is characterised by business sector having the assurance that political elites will deliver on their promise. It survives because there is a broad consensus amongst political parties that growth should be private sector-led, and the resultant growth of the private sector has helped them develop an ability to robustly influence politics.

Deals here are struck in the first place based on *"personal ties and factional loyalties"* (Maitrot,2017) and *"rents are shared amongst such networks in a manner that allows businesses not only to survive episodes of political uncertainties, but to take advantage of emerging opportunities and benefit from steady economic growth"* (Maitrot, 2017). In Bangladesh, development is very much possible even in the face of apparent state of mal-governance as long as the deal makers stand to benefit from it.

Additionally, Mahmud, Ahmed, & Mahajan (2008) have opined that innovations of country appropriate low-cost solutions to some of the most pressing problems, the agility of general masses in responding to public awareness campaigns and challenging the status quo[8], persistent pro-poor development initiatives taken by the government[9], and, on a number of occasions, predisposition of successive governments to pursue least confrontational reforms[10] have played a part in enacting Bangladesh's 'development surprise'.

2.3.2 Politico-Economic Forces Critical to Strengthen Green Growth Governance in Bangladesh

In this section we identify the politico-economic forces critical to strengthen governance for green growth in Bangladesh and comment on the role they can be expected to play or are already playing in greening Bangladesh's development.

Government:

It was only in the early 1990s that environmental protection concerns became a part of political discourse in Bangladesh. The growing government commitment to protect the environment epitomised itself as the formulation of Environmental Conservation Act 1995 following the development of NEP (1992). In more recent years, the devastating effects of Cyclone Sidr and consecutive monsoon floods in 2007 that took 3000 lives and caused an economic loss of US$2.8 billion, brought environmental concerns, in particular adapting to the effects of climate change, at the centre stage of policy making and national development discussions (Alam et al, 2013).

It was accepted, without any disagreement, by the policy making cohort of the government that climate change posed a threat to Bangladesh's economic growth aspirations. The government responded by

[8] Fast social development has been realised through generating public awareness and employing low-cost affordable solutions particularly in cases of popularising birth control and increasing enrolment to primary education (especially for female children) in the rural region. The rapid success of normalising birth control and female education in rural region serves to prove that attitudes and customs can change at a faster pace than traditionally assumed in institutional economics literature (Mahmud, Ahmed, & Mahajan, 2008).

[9] The inherent weaknesses of the governance mechanisms have not stopped government from pursuing its development agenda which is reflected in its budgetary allocations for development goals, especially for the poor. Pro-development expenditures have always been viewed as a tool to obtain political legitimacy by all parties in power (Mahmud, Ahmed, & Mahajan, 2008).

[10] Mahmud, Ahmed, & Mahajan (2008) explain:
"…many of the reforms in the area of macroeconomic management could be implemented without much political resistance. For example, the country's bad experience with runaway inflation during 1972–75 created the political support for tightening macroeconomic management. Similarly, the disastrous experience with nationalization and controls in this period was easy to dismantle because most people (except possibly trade unions) saw the merits of doing away with a controlled economy and move towards a private sector–led development strategy. Also, the support for social spending was seen as a political win-win since the members of parliament could take credit for the expansion of health and education programs in their constituencies…."

formulating the BCCSAP and Bangladesh Climate Change Trust Fund (BCCTF) using its internal resources. The country has come a long way since then in mainstreaming climate preparedness in its national planning process, and has even initiated the process to include a climate marker in its Medium Term Budgetary Framework.

The issue of conserving the environment while pursuing economic growth, as discussed before, is recognised in high level policy documents but this has typically tended to lose out amidst competing priorities. Even though Bangladesh has set Intended Nationally Determined Contributions of emission reduction to 5 percent conditional and 15 percent unconditional by 2030 under the COP2141, the country is free from internationally agreed compulsions to adopt mitigation measures (Bjornestad et. al 2016). The government has, for a while now, been consistently focused on industrialising the nation, and its efforts are paying off as depicted in Figure 2.2 that sectoral growth rate of industry as a part of gross domestic product (GDP) has outpaced the growth of agricultural and service sectors. Given the government's focus on increasing the share of industrial manufacturing to the GDP, Bangladesh's emissions levels will keep increasing in the coming years unless a path to green growth is adopted.

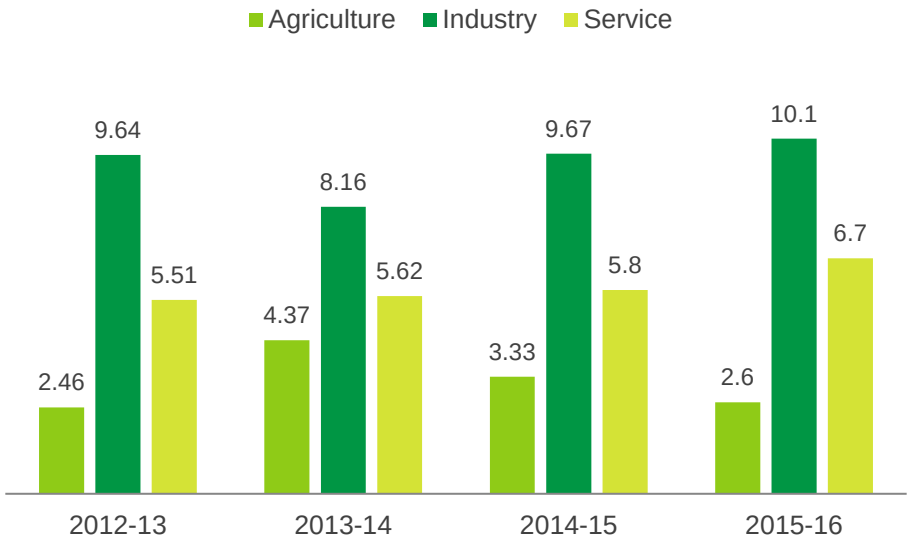

Figure 2.2 Sectoral Growth Rate of GDP
Data Source: National Accounts Statistics, Bangladesh Bureau of Statistics

In general, manufacturing, agriculture, energy, and transport sectors are critically important for the economic growth of Bangladesh, but their current mode of operations have very high negative environmental externalities-particularly on forests, water and air quality. Bangladesh needs to have a clearly stated plan in place that ensures its economic growth stimulated through progressively increased activity in the high polluting sectors does not come at the cost of its natural resources essential to sustain lives of its populace. However, given the government's focus on pursuing economic growth through industrialisation any recommendations pushing environmental conservation that may slow down the process of the country's industrialisation or key sectoral development is likely to be rejected. Successful development and implementation of policies for promoting green growth will rely on generating strong sectoral buy-in towards the overarching goal of national green growth.

Towards that end, environmental conservation would have to be recognised as a cross-sectoral issue. Stronger institutional collaboration between ministries and agencies representing different sectors in managing the environment will be required which currently is rather meager. High-level policies currently in place in Bangladesh provide little to no guidance on how the different institutions responsible for its

implementation will collaborate with each other. Responsibilities pertaining to different components of environmental management are distributed among different institutions which make the task of effective and efficient management a huge challenge in itself to overcome. A review of international best practices in green growth governance reveals that green growth is best actualized with central planning authority of a nation steering cross-sectoral collaboration towards its attainment (GGBP, 2014). For example in Vietnam, *"the Ministry of Planning and Investment is the focal point for green growth, responsible for leading and coordinating with concerned ministries, sectors, People's Committee of provinces and cities, collaborating with international development partners to mobilize financial resources to implement the Viet Nam Green Growth Strategy and Action Plan, and for acting as the Coordinating agency for the implementation of the 2030 Agenda for Sustainable Development*" (UNDP, 2017). The Planning Commission is the most appropriate government organization in Bangladesh to steer the multi-ministerial collaboration required for achieving green growth as it has the mandate to bring all the relevant ministries like Finance, Energy, Transport, Agriculture, Environment and Forestry on the same table.

Box 2.1: Lesson for Bangladesh from the Mitigation Action Plans Scenarios (MAPS) Project

Bangladesh may seek inspiration from the MAPS project in generating green growth policies with strong political buy-in through a cross-sectoral collaboration process. The MAPS Project, involving governments of participating developing nations (Brazil, Chile, Colombia, India, Peru, and South Africa) stimulated scenarios and options for mitigation across different sectors of their country's economies. In Colombia, at first more than 80 mitigation measures were identified in different sectors that have an impact in the GHG emissions of the country. The next step was producing sectoral plans, through a process led by the ministries responsible for the respective sectors, based on the identified measures that could be implemented in short and long terms. Inputs were sought from relevant stakeholders at this stage through discussion sessions, workshops, meetings, surveys. The final result was thus plans that had strong political buy-in, results-based approach and realistic in Colombia's national context (Sandoval, 2016). When it came to implementation of such collaboratively generated plans, ministerial engagement was the key to Chile's MAPS programme success. Environment, Finance, Agriculture, Energy, Transport, Foreign Affairs, Transport, Mining all ministries came together to make Chile's green ambition a reality.

Further, to stimulate economy wide green growth in collaboration with the private sector, the government has to lead by example. Greening considerations and criteria should also be embedded into public financial management and particularly in public investment project planning and approval processes, and at all stages of public procurement.

Local Government:

The administrative structure of local government institutions in Bangladesh is depicted in Annex-2.

While local governments were conceived as key institutions that reflect the will of people on the ground, their ability to engage with other arms of the government has typically been limited. They have limited revenue base and primarily rely on government grants to finance even their day to day operations. Owing to insufficient allocation of trained human resources they are often incapable of exercising their administrative duties.

Even though the poorer populace of the rural regions is at the risk of suffering most from the negative impacts of environmental degradation and climate change, they are most ignored in receiving climate

change adaptation fund. By June 2016, MoLGRDC had received funding worth 578.4 crore for 142 projects[11] from BCCTF that was implemented through its LGD. While the LGD involved Zilla Parishad, Paurashava, and City Corporation in implementation of 108 of those projects, Upzilla Parishad and specially Union Parishad remained ignored. (Sharmin et. al. 2017). A closer analysis reveal that even of those 108 projects only 14 projects were implemented through Zilla Parishads for the rural community, while the other 94 were designed for urban regions. In fact, 82% of the allocated fund worth 291.4 crore taka have been allocated to City Corporations and Paurashavas while only 18% of the fund allocated to local government entities worth 62.45 crore taka have been allocated to Zilla Parishads (Sharmin et. al. 2017). The allocation of fund is shown in the figure in Annex-2.

Devolution of power to the local governments authorities remains hindered by the phenomenon of Members of Parliament being more interested in handling local issues to consolidate their political clout among the voter banks instead of being engaged in legislative activities at the parliament (The Independent (a), 2016). Plus, the challenge associated with instilling accountability and transparency at local level is put forward as the reason for not delegating more power to local governments.

Against the political reality of distribution of power in Bangladesh, limited resources and authority at the disposal of local governments, and the culture of top-down approach of policy formulation, it would be immature to make 'ideal case scenario' suggestions for strengthening Bangladesh's local government institutions that would require radical change of the administrative culture. Rather, local governments should be supported to enhance their role in environmental management of the areas under their administrative remit.

Private Sector:

Bangladesh has a thriving private sector which has been the engine of the country's economic growth. A number of economic policy reforms[12] taken by the government since the early 90s have yielded impressive results in the private sector's development. Bangladesh's economic growth cannot be greened without greening the growth of its private sector.

Towards that end, the Ministry of Finance, in fact, had plans to introduce Carbon Tax in the national budget of the 2017-18 fiscal year, but backed off on face of the political risk associated with the measure ahead of an election year (Siddique, 2017). Bangladesh already levies among the highest corporate tax rates in the region ranging from 25% to up to 45% (Bjornestad et. al 2016), so a measure like introducing Carbon Tax indeed is unsuitable for the country trying to build its trade competitiveness. Any regulatory measure, that taxes the growth of private sector, would, in all likelihood, have a difficult time passing into bill anyway as Bangladesh, in a sense, has come to be ruled by businessmen over the years as more and more individuals identifying their primary profession to be business have been elected to the parliament. As Figure 2.3 shows, the 10th parliament has 182 members listing their primary occupation to be business.

[11] The highest amount of funding received by any single ministry from BCCTF.

[12] Some of the policy reforms adopted by the government that has helped the private sector grow, include, but are not limited to: *"maintaining macroeconomic stability, keeping fiscal deficits low so as not to crowd out bank lending to the private sector, providing access to imported inputs through import liberalization, increasing competition by reducing entry barriers, and improving the central bank's oversight functions in respect of commercial banking."* (Mahmud, Ahmed, & Mahajan, 2008)

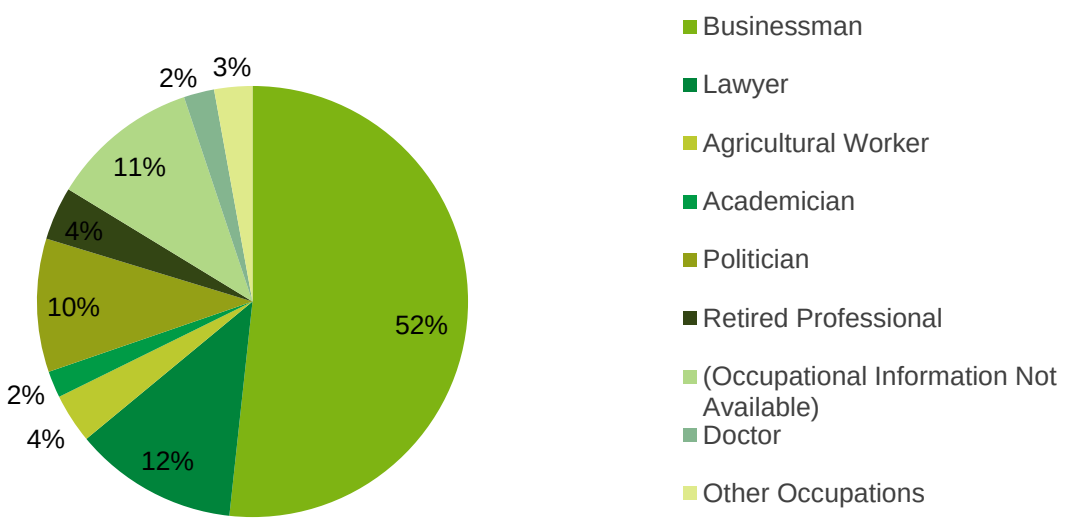

Figure 2.3 Professional Composition of the Members of 10th Parliament

Data Source: Compiled based on individual review of the parliamentarians' profile as they appear on the official website of Bangladesh Parliament.

Given the political influence and financial strength of the private sector, the most effective way to have private sector on board on the green growth agenda would be to make a business case for them to financially benefit from environment friendly modes of operations, rather than trying to penalise them for their pollution footprint. However weak, Bangladesh currently has laws for penalising industrial units for environmentally harmful practices, but so far the country has not garnered any visible success in strictly enforcing them. The weaknesses of the country's institutional framework in implementing the environmental laws are well known, and the private sector has taken advantage of that by bypassing environmental conservation requirements. Making a business case for green growth to private sector may be the most effective way to organically steer them away from environment damaging acts and modes of operations.

Some of the policy instruments Government of Bangladesh can use in this regard include:

- **Providing preferential tax treatments for environment friendly business practices**
  Even though Bangladesh cannot yet consider economic growth curbing measures like 'brown economy' subsidy reforms, the Government of Bangladesh may consider providing preferential tax treatments for environment friendly business practices like using renewable energy for production, making production processes resource efficient, using environment friendly biodegradable packaging etc. Preferential tax treatments can be provided in the forms of reduced corporate income tax and extended tax holidays for investment is green sectors like renewable energy, waste recycling etc. Deductions in tax payable could be offered for investments in resource efficient equipments by allowing accelerated depreciation on environment friendly assets.

- **Promoting green innovations**
  The Government of Bangladesh may promote green innovations in the country by:
  - *"applying price signals more widely to reflect the true value of natural resources and the costs of pollution, and thus provide incentives to encourage innovation"*; (OECD, 2012) and

- *"using the opportunities offered by public procurement, standards and regulatory policies to strengthen and improve the markets for green products, fostering innovation in the process".* (OECD, 2012)

- **Creating a conducive environment for attracting impact investments**
  Impact investments[13] have started to flow into Bangladesh. As per the latest data available, 15 impact investors have invested a total of US$1 billion aimed to generate environmental, social, and economic return through sustainable business ventures undertaken by the private sector of Bangladesh (Khan, et al., 2017). Bangladesh Investment Development Authority needs to devise strategies for attracting more of such investments in the country through foreign direct investments (FDIs), or impact investment routes.

Judiciary:

The parliament passed Environment Court Act in 2000 for trying cases involving violation of Environmental Conservation Act (1995)[14]. The Act was repealed and replaced with an updated version which passed into bill in 2010. Even though the 2000 version of the Act envisioned setting up an Environment Court in each division and the updated 2010 version envisioned setting up a court in each district, so far only three Environment Courts have been set up in Dhaka, Chittagong and Shylhet divisions, and an Environment Appellate Court has been established in Dhaka for trying environmental offenses taken place in any part of the country.

Bangladeshi Environment Courts have the lowest case filing rate in the world[15] (Sajal, 2015). Even though numerous environmental violations are taking place under the jurisdiction of the court, few cases have been filed with it over the years yielding the court to deal with civil and criminal cases instead (The Independent (b), 2016). Figure 2.4 shows the number of cases filed with Dhaka Environment Court since its inception in 2003.

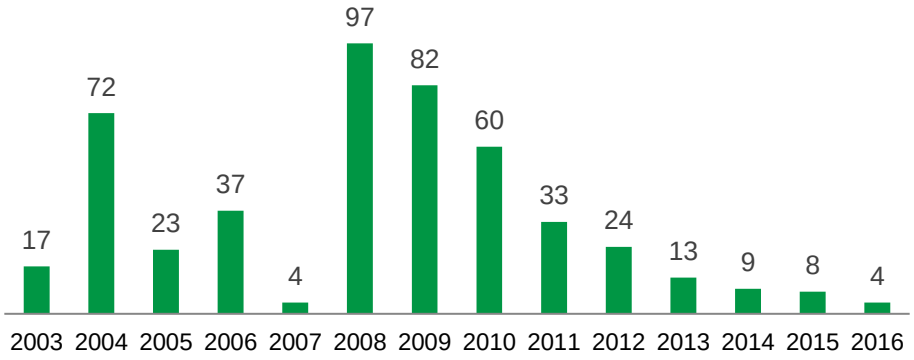

Figure 2.4: Number of Cases filed with the Dhaka Environment Court
Data Source: The Financial Express (2014), The Dhaka Tribune (2017)

[13] Global Impact Investing Network (2017) defines impact investments as: *"Investments made into companies, organisations and funds with intention to generate social and environmental impact alongside a financial return".* The term of generating financial return distinguishes it from grant funding and the condition of ensuring positive benefit to society makes it different from traditional investments.

[14] The court can also try other cases not related to violating environmental offenses.

[15] Sajal (2015) reports that, "*In the Environment Courts of Bangladesh, on average 100 cases are filed in every year",* whereas almost 700,000 cases are filed with the Environment Control Board of New York City annually.

A number of weaknesses of the Environmental Court Act (2010) are rendering the Environment Courts ineffective. Some of them are:

- The procedure related to seeking environment justice by any plaintiff is rather complex. As per the current regulations, environmental offense related cases cannot be filed with the Environmental Courts unless a written report has been issued by DoE. The plaintiff must first register a complaint with DoE which then assigns an investigator to inspect the case primarily. Upon completion of the investigation, if the complaint is found to be valid, DoE may fine the offender or proceed to file a case with the Environment Court. DoE also has the authority to initiate request for launching mobile courts conducted by the Deputy Commissioner of each district who then delegates the authority to a Magistrate[16] to adjudge the complaints filed with it. The Magistrate is assisted by a DoE staff who acts as a prosecutor during the Mobile Court operations. The Environment Court has the liberty to directly take a complaint into it cognizance from a plaintiff only if the plaintiff has filed a written complaint with DoE, and DoE has not been able to take any action against the complaint within 60 days. The stipulated mechanism of primary responsibility of filing a case with the Environment Court and investing an allegation lying with the DoE has rendered the Environment Courts largely ineffective.

- The Environment Courts do not have writ jurisdiction and thus "*even if the victims win legal battle at the Environment Courts, three other courts (till the Appellate Division) remain left for them to continue their legal fight; that is very difficult for the victims to remain connected with the prolonged legal battle against the powerful offenders keeping the victims at bay…"* (Syeda Rizwana Hasan as quoted in The Financial Express, 2014)

- The technical expertise required to scientifically assess environmental violations requires the presence of experts in the environmental adjudication panel. Environmental Court Act (2010) has created no position for such environmental experts in the Environment Courts of Bangladesh (Habib, 2015). In contrast, Habib (2015) notes that "*section 5(2) of the National Green Tribunal Act (NGTA), 2010 of India and section 247 & 254 of the New Zealand Resource Management Act 1991 provide for such provisions of environmental technical experts in their environmental adjudication foray*".

- The Act empowers the environmental courts to try cases only involving the violations of Environmental Conservation Act (1995) which forces the Court to disregard environmental regulations stipulated in all other Acts and Rules. This is problematic because an integrated command over all environmental laws is required for the consistent deliverance of justice. (Habib, 2015)

- A concurrent reading of section 2(C) of Environmental Court Act (2010) and section 15 of Environmental Conservation Act (1995) reveals that the Environment Court can impose a maximum penalty of 1 million Bangladeshi taka (approximately US$12,398) to environmental offenders regardless of the gravity of their offense, whereas, in contrast, the "*NGTA of India provides for maximum penalty of 10 crore and 25 crore rupees for a natural person and legal person respectively"* (Habib, 2015). Further, for violations of two sections of Environmental Conservation Act that are usually dealt by the mobile courts (Islam, 2015) the maximum monetary penalty is even less. A vehicle emitting injurious smoke can be fined only up to 5,000 taka for first offense, and 10,000 taka for second offense (or be imprisoned for one year); and an entity selling, exhibiting for sale, stocking,

[16] Previously, Mobile Courts used to be run by Executive Magistrates but in a recent ruling in May 2017 High Court has declared mobile courts run by Executive Magistrates to be illegal. Following the verdict only judicial or metropolitan magistrates will have the authority to run mobile courts. (The Daily Star, 2017)

distributing, commercially transporting or commercially using articles injurious to health can be fined a maximum of 10 thousand taka only (or be imprisoned for 6 months). Such low ceiling of maximum monetary fine that can be levied for environmental offenses is insignificant and insufficient considering the irreversible damage many polluters cause to the environment.

- According to Environmental Court Act (2010), a joint-district judge will be appointed to judge cases in the Environment Courts. In the words of Habib (2015),

  "Remarkably, their role as part-time judges in environment courts ipso facto[17] proves the 'window dressing approach' of the government towards environmental governance regime. Given the deadlock of cases in civil courts, a joint-district judge cannot perform functions of both offices i.e. as a civil court judge and a judge of environment court..."

The above list points to some of the key weaknesses of the Environmental Court Act (2010) but it surely is not an exhaustive documentation of all its shortcomings. Regardless, even if the technical or institutional loopholes weakening the Environmental Courts are taken care of, the fact remains that most environmental offenders are rich and powerful industrialists and the common people aggrieved by their environmental offenses simply do not have the money, grit, or 'gut' to go against them. The Act and institutional setup involving Environment Courts needs to undergo reforms to empower in the Court in delivering justice against the rich and powerful environment polluters.

International Community:

The international community, i.e. the donors and development organizations, play a catalytic role in introducing developmental reforms in Bangladesh. Many of the policy documents on environment and climate change were formulated with the help of bilateral development partners, multinational development banks and United Nations agencies. It has been argued that climate change took centre stage in domestic policy discussions because the biggest multilateral and bilateral donors embedded climate preparedness in their development assistance schemes (Alam et al. 2013). Aid conditionality, undoubtedly, has been a source of their influence, but according to Mahmud, Ahmed, & Mahajan (2008) *"the sequencing, design, and implementation of these reforms had much to do with the political incentives in relation to the economic rationale of such policies."*

Support of international community, especially channelled through supplying green finance, and green technology and business opportunities, would be instrumental for the green growth of a developing country like Bangladesh. Official development assistance (ODAs) received in areas like sustainable infrastructure, renewable energy, sustainable agriculture, low-carbon transportation networks, and human and institutional capacity building efforts for national green growth planning where private investments are rare can help create an enabling environment for green growth in Bangladesh (OECD, 2012).

Non-government Organisations (NGOs) and Civil Society:

Civil society and NGOs in Bangladesh have played an important role in the social development sector. Civil society advocacy has influenced policymaking in key sectors in the past. For instance, the Bangladesh Environmental Lawyers Association (BELA) is a prominent civil society organisation (CSO) that works to promote environmental justice in Bangladesh. Their legislative advocacy has culminated in a number of constitutional and legal amendments. Internationally connected campaign groups, another powerful force representing civil society, also play an active role in influencing the policy dialogues. Alam et al. (2013**)** argue that it was citizen-based environmental campaigns like Bangladesh Poribesh

[17] By the very fact or act.

Andolon[18] and Poribesh Bachao Andolon[19] that "*influenced public opinion and pursued conservation at the centre of policy discourse"*. These examples demonstrate that NGOs and CSOs can play an important role by conducting specialised research to inform policymakers and improve public awareness, as well as play the role of a monitor to both public and private sector commitments. However, success of such campaign groups is heavily reliant on the effectiveness of media in publicising the policy positions advocated by them.

The benefits of civil society's participation in green growth governance can be realised in full particularly if they are provided a platform to formally engage with government. Currently, the country has a legal framework that broadly recognises citizen's right to access environmental information on request. Nevertheless, only a handful of public institutions are required to proactively release environmental information to the masses. Citizen participation in environmental decision making is rather limited and, in fact, *"the Environmental Conservation Act grants the authorities complete discretion to determine whether, and how, rules governing public participation in environmental decision making should be promulgated"* (Environmental Democracy Index, 2015). To enable CSOs and NGOs better dispense their monitoring role to the government scaling up use of the Right to Information Act and reviewing relevant provisions of Environmental Conservation Act to strengthen public participation in the environmental decision making process are suggested.

Organisations operating in rural areas have a role to play in helping the private sector reach remote, under-served areas. For instance, commercial banks are struggling to meet the 5% green loan disbursement requirement set by the Bangladesh Bank because the 50 sectors qualified to be recipients of direct green finance usually require only small amounts of funds, and such green projects are usually located in rural regions where private commercial banks do not have strong field presence (Khan et al. 2017). NGOs of Bangladesh, given their extensive field presence in rural region and their experience of dealing with 'group lending', can play an enabling role in greening the growth of Bangladesh if Bangladesh Bank allows them to serve as green finance disbursement agents on behalf of private commercial banks. Agent banking practice is currently allowed for disbursing agricultural loans only and we strongly recommend that the practice should be extended to disbursing green loans through NGOs as well.

2.4 Strategic Implications

Based on the discussions on the policies, institutions, and political economy that may affect Bangladesh's green growth trajectory in the preceding sections, the following strategic implications can be drawn:

- The incentives of the key actors and forces constituting the political economy of green growth for embracing or hindering promotion of green growth needs to be studied in depth before politically feasible action plans for promoting green growth can be devised. Capacity of the key stakeholders identified in our discussion in influencing green growth in Bangladesh is mapped in Figure 2.5.

[18] Bangladesh Environmental Movement

[19] Environmental Protection Movement

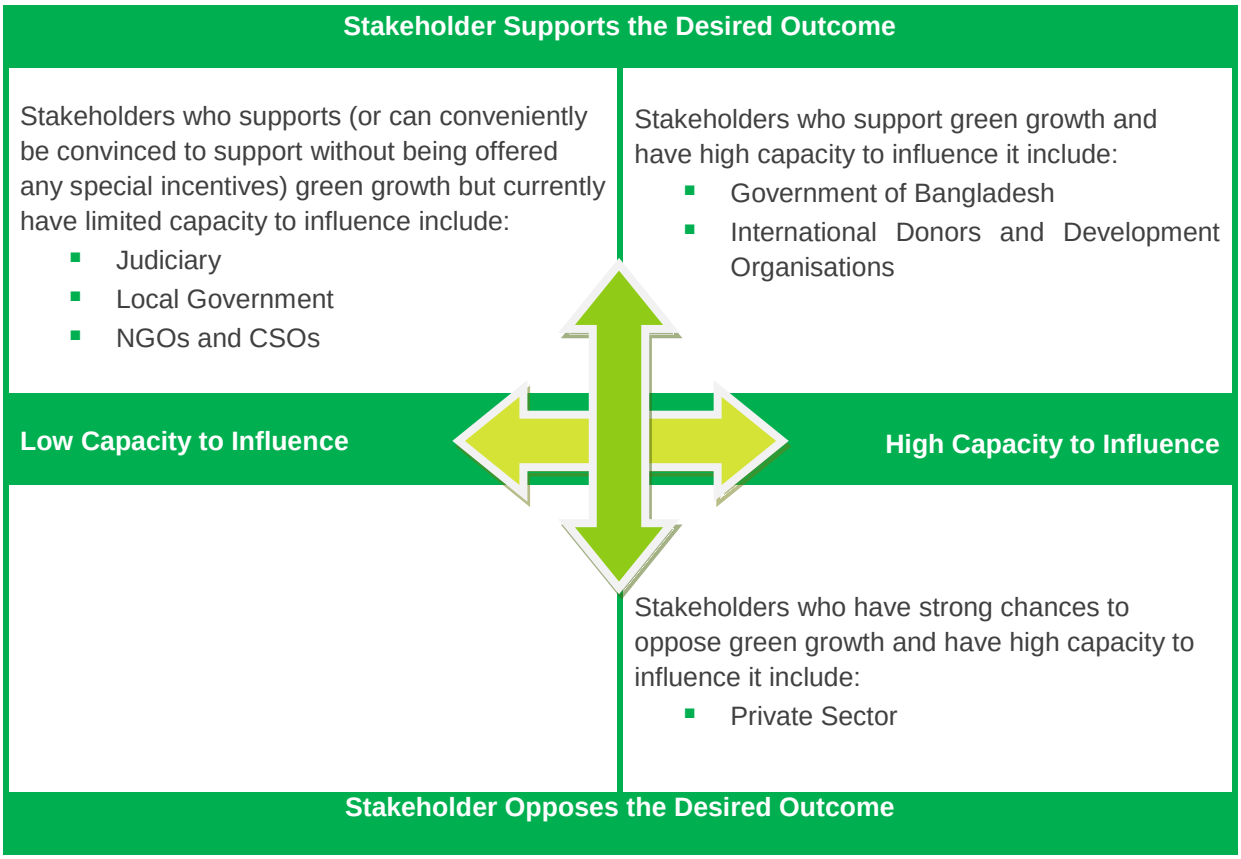

Figure 2.5: Capacity of the Key Politico-Economic Actors in Influencing Green Growth in Bangladesh. The mapping matrix is adapted from IIED and UNEP-WCMC (2015)

The Government of Bangladesh, thus, as top priority, would have to devise and employ policy instruments to bring private sector on board with the green growth agenda, undergo institutional reforms to govern for green growth more effectively, and engage in strategy building exercise to engage with international community more efficiently. An enabling environment to facilitate contribution of the judiciary, local government authorities, NGOs, and CSOs towards the green growth mission would also have to be created.

- Policy reforms required for mainstreaming green growth cannot be actualised unless the need for green growth is aligned with the foremost concerns of those making policies at national, sectoral, and sub-national levels. Thus, to achieve true success in mainstreaming green growth, Bangladesh needs to align its green growth objectives into its national priorities like poverty reduction, climate change adaptation, fighting pollution, and employment generation. Some of such avenues for alignments are pointed out in Table 2.1:

Table 2.1: Some Avenues for Aligning Bangladesh's National Priorities with Green Growth Agenda

Bangladesh's National Priority	Alignment with Green Growth
Poverty Reduction	Extensive analysis of agricultural data collected from Africa and Asia of by Pretty (2006) has demonstrated that, *"use of green farming methods (such as integrated pest management, integrated nutrient management, low-tillage farming, agro-forestry, aquaculture, water harvesting, livestock integration, nitrogen fixing crops,*

Bangladesh's National Priority	Alignment with Green Growth
	etc.) resulted in productivity increases of 59 to 179 per cent. Studies have estimated that for every 10 per cent increase in farm yields, there has been a 7 per cent reduction in poverty in Africa; and more than 5 per cent in Asia" (UNEP, 2011). Greening the agricultural sector thus can help Bangladesh lessen poverty and fight hunger.
Climate Change Adaptation	Building resilience against the impending impacts of climate change is a core national priority for Bangladesh with very strong political buy-in. Preparing the nation to adapt to the impacts of climate change would require a tremendous amount of resources, and a significant portion of it has to be sourced from international climate funds. If Bangladesh can demonstrate its commitment to green growth, the country can make a stronger case to international donor communities to obtain the funds it needs for climate change adaptation. Prospect of better access to international climate finance thus can serve as an additional motivational factor for Government of Bangladesh to pursue green growth.
Pollution Abatement	Abatement in the levels of pollution is one of the most direct co-benefits of green growth. Bangladesh is struggling with high levels of air and water pollution-specially in the urban areas. Pursuing green growth can help Bangladesh fight such polluting menaces, a point we further elaborate upon in the chapter that follows.
Employment Generation	The Government of Bangladesh can embark on green growth with the view of creating green jobs, and thus align green growth with the national priority of employment generation. Sourcing only 2.86% (Molla, 2017) of its total energy from renewable sources, Bangladesh has already created 141,000 direct and indirect green jobs in the renewable energy sector (Environmental and Energy Study Institute, 2017). The country has, in fact, the fourth largest number of solar PV jobs worldwide, a total estimated to be 127,000 (Environmental and Energy Study Institute, 2017). Creating an enabling environment for the growth of green sectors like sustainable construction, sustainable forestry, waste management and recycling, and renewable energy generation will be accompanied by creation of thousands of green jobs[20].

- Given the strong preference for market-led growth among the political elites, and sizeable political influence of the business communities, green growth in Bangladesh can be achieved if a convincing business case can be made for it. The best bet for mainstreaming green growth in Bangladesh would be through introducing market-based policy instruments.

[20] For a detailed argument for the prospect of green jobs in Bangladesh interested readers are suggested to refer to a 2010 International Labor Organization publication prepared by GHK tiltled *Estimating Green Jobs in Bangladesh*, and a 2008 Waste Concern publication titled *Prospects of Green Jobs in Waste Recycling*.

- Fortunately for Bangladesh, the drivers favouring change have often outweighed drivers favouring status quo[21]. Adoption of green practices as the default mode of business will require change in attitude across the board. Bangladesh will require well designed public awareness campaigns and institutional and policy reforms to push the green growth agenda forward.

A strategic layout of how the different actors and forces constituting the political economy of green growth can come together to green Bangladesh's economic growth is indicated in Figure 2.6

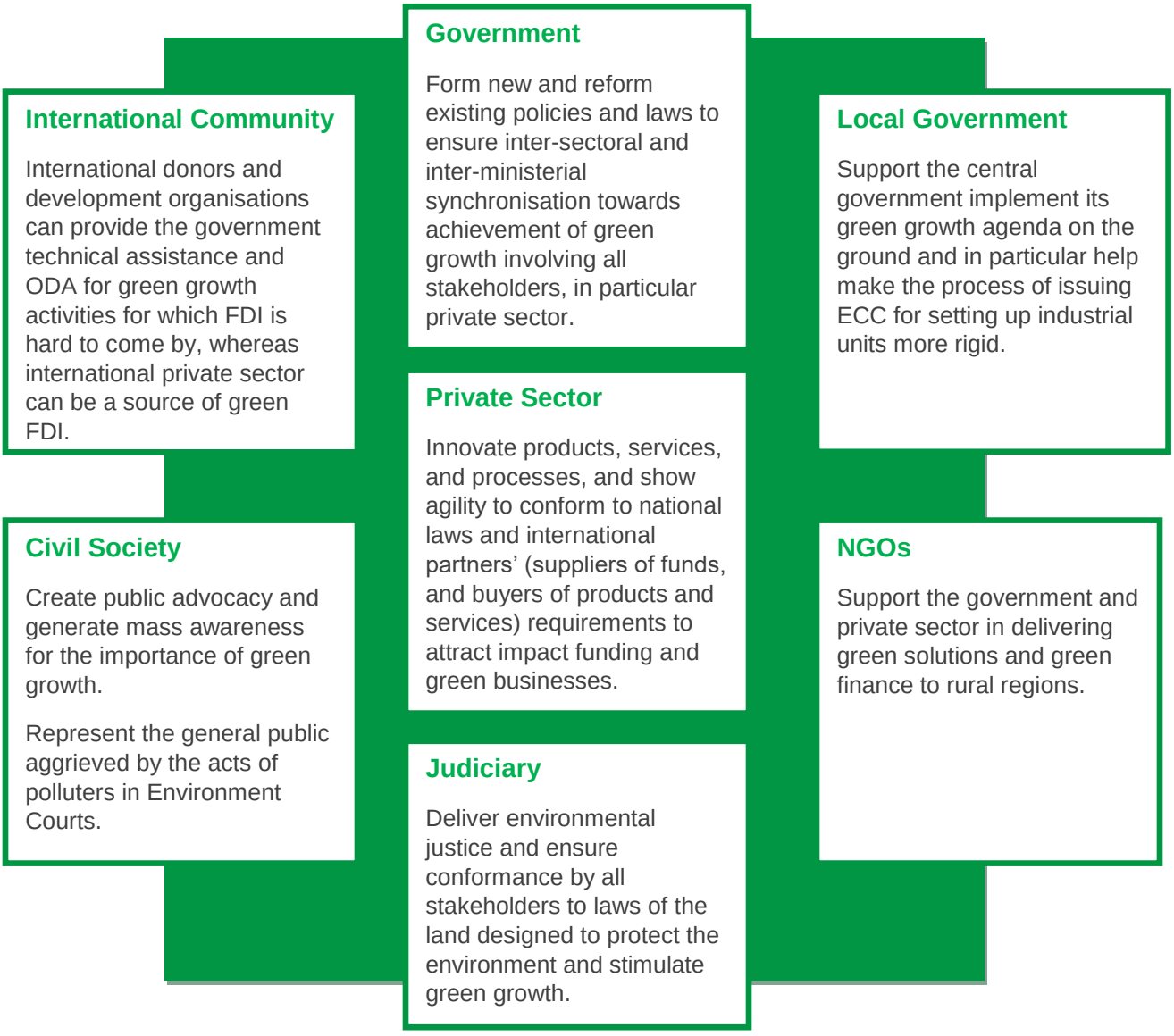

Figure 2.6: Strategic Layout of the Role Different Politico-Economic Actors Can Play in Greening Bangladesh's Economic Growth

[21] It has been seen in the cases of popularising female enrolment to primary education and giving women access to birth control.

2.5 Recommendations for Strengthening Governance for Green Growth in Bangladesh

In reality, absolute achievement of good governance for green growth in a way that checks all marks is an impossibility. Thus, the objective should rather be to achieve a consensus oriented path to green transformation based on sophisticated political balance that is grounded to socio-politico-economic reality. In strengthening the governance for green growth in Bangladesh, the foremost priorities for the Government of Bangladesh would be addressing its internal governing weaknesses; engaging more effectively with international donor, development, and business communities; and bringing the private sector on board with its green growth agenda. The government would have to devise green growth-oriented policies and action plans with strong political buy-in and undergo required legal and institutional reforms to implement them. The government would also have to formulate a menu of instruments to green the private sector's mode of operation and channel private funding to green ventures. To accomplish these, we recommend the following:

Table 2.2: Recommendations for Strengthening Governance for Green Growth in Bangladesh

Recommendations for Strengthening Governance for Green Growth in Bangladesh
Recommendation 1: Environmental conservation should be recognised as a cross-sectoral issue, and not as an exclusive domain of MoEF. Stronger institutional collaboration between ministries and agencies representing different sectors in protecting the environment while pursuing economic growth should be established. In consideration of its official mandate, and anchoring role in synthesising sectoral policies and programmes, the Planning Commission may steer the process of inter-ministerial coordination towards embedding green growth agenda into sectoral plans. In the short to medium term, Planning Commission, would be the most appropriate institution to steer the multi-ministerial collaboration required for achieving green growth as it has the mandate to bring all the relevant ministries on the same table. In the longer term, to overcome the problem of incoherent and overlapping assignment of responsibilities, allocation of business of different ministries, divisions, departments, and agencies may have to be revised.
Recommendation 2: Green growth objectives should be integrated into Bangladesh's national priorities like poverty reduction, climate change adaptation, fighting pollution, and employment generation. A high-level National Inclusive Green Growth Strategy, accompanied by sectoral Green Growth Action Plans laying down concrete, short-term objectives should be formulated, with buy-in from the highest political levels and all concerned stakeholders. A review of best practice reveals that when green growth objectives are integrated with national priorities, they have better chances of securing strong buy-in from all relevant stakeholder groups. For achieving strong political and public buy- in for green growth in Bangladesh, a strategy aligning green growth ambitions with national priorities will be required. The GED of the Planning Commission may lead the process of formulating the National Inclusive Green Growth Strategy and mobilise resources to this end. Further, to ensure actual implementation of the high-level policy on the ground, concrete, short-term objectives towards achieving the broad, long-term green growth vision should be specified in Green Growth Action Plans.

Recommendation 3: Government of Bangladesh should deploy market-based policy instruments to bring the domestic and international private sector on board with the green growth agenda.

Political elites of Bangladesh have a demonstrable preference for market-led economic growth, and as such to mainstream green growth market-based policy instruments will have to be deployed in its favour. Some of the policy instruments that could work in Bangladesh include: pricing natural resources appropriately, providing preferential tax treatments for environment friendly business practices like using renewable energy for production, making production processes resource efficient, using environment friendly biodegradable packaging, etc. Preferential tax treatments can be provided in the forms of reductions to corporate income tax and extended tax holidays for investment is green sectors, deductions in tax payable for investments in resource efficient equipments by allowing accelerated depreciation on environment friendly assets etc.

Further, strategies need to be developed for attracting Green FDI from international private sector. Green FDI would facilitate the import of green technologies and business processes from developed countries to Bangladesh and potentially also have a spill over effect in encouraging domestic competitors adopt the green technologies and processes introduced by them. Core problems associated with attracting FDIs in Bangladesh will need to be dealt with as well as new strategies for attracting Green FDIs will need to be developed.

Attention also needs to be invested in creating a conducive business environment for attracting impact investments which primarily involves inflow of green finance to fund domestically invented green technologies or processes.

Recommendation 4: The Government of Bangladesh will have to undertake regulatory reforms, particularly in amending certain sections of Environment Conservation Act (1995) and Environment Court Act (2010), to establish and strengthen rule of law relevant to its green growth mission.

To make the Environment Courts effective Environmental Court Act (2010) will need to be revised to give citizens direct access to them without first having to register their complaints with DoE. DoE, the chronically understaffed government agency with inadequate technical capacities, could do with fewer responsibilities on their plate.

Empowering the Environment Courts with writ jurisdiction, creating positions for technically competent experts in its adjudication panel, giving it authorisation to try cases involving environmental regulations stipulated in all Acts and Rules of the land will go a long way towards making the court more effective and relevant. Revising the law to give anyone the right to litigation in representation of others will empower CSOs to fight cases on behalf of aggrieved citizens who themselves cannot fight against the rich and powerful environment polluting industrialists and businesses.

In the same vein, the rooms for updating the Environment Conservation Act (1995) and ECR (1997) will have to be scrutinized and sufficient monetary penalty for violation of environmental regulations will need to be imposed. Making the procedures involving conducting EIA and issuing ECC must be made more rigour so that these tools actually serve the purpose they have been devised for. Relevant provisions of Environmental Conservation Act (1995) should also be updated to strengthen public participation in the

environmental decision making process.

Recommendation 5: National Institute of Local Government (NILG) under Local Government Department (LGD) should develop programmes to train local governments in adopting sustainable waste disposal practices and promoting recycling in their vicinity, and preparing Master Plan for their jurisdiction factoring in environmental protection.

Waste management is among the key responsibilities of local government authorities. NILG should develop training programmes to train local government representatives in creating green jobs through promoting recycling and strengthening sustainable waste management practices in their vicinity.

Further, even though City Corporations and Pourashavas have been empowered to prepare Master Plan for their jurisdiction by the Local Government Act (2009) it has been noted that such local level plans fail to take into account environmental concerns and align themselves with the environmental goals set out in national level plan documents. NILG should develop training programmes to train local government representatives in preparing Master Plan for their locality factoring in environmental management issues and aligning such local level plans closely with the green growth vision laid out by the central government in national plan documents.

3 Sectoral Case Study: Greening the Growth of Textiles Manufacturing Sector

One of the key points made in the last section was that in order to mainstream the green growth agenda in Bangladesh, a beginning must be made in key sectors. In this chapter, using the example of the textiles manufacturing sector, we further explain how this may be implemented. Textiles manufacturing is critical to the economic growth of Bangladesh, and at the same time, has profound negative environmental externalities. The analytical framework adopted in Chapter 2 is applied here to study the sector.

3.1 Key Environmental Challenges Posed by the Sector

The garments industry can be broadly divided into two sub-sectors: textiles manufacturing, and ready-made garments (RMG) manufacturing. Textiles manufacturing sector, in particular, presents severe environmental challenges such as surface water pollution, ground water depletion, environmentally detrimental practices of disposing hazardous chemical, and irresponsible solid waste management (Hassan, 2015). Water pollution and use of excessive amounts of water due to inefficient production processes are the main negative impacts of the textiles manufacturing sector.

The major environmental concern involving the sector arises from inefficient and irresponsible use of water in wet-processing. Dyeing consumes a significant amount of water and the effluent from the dyeing process pollutes the environment if discharged without proper treatment. Discharge of toxic wastewater containing salts, dyes, and bleaches from textile factories with dyeing and finishing functions are damaging both surface and ground water (The Financial Express, 2015). This is contributing to contamination of potable water supplies, public health hazards, and threats to aquaculture.

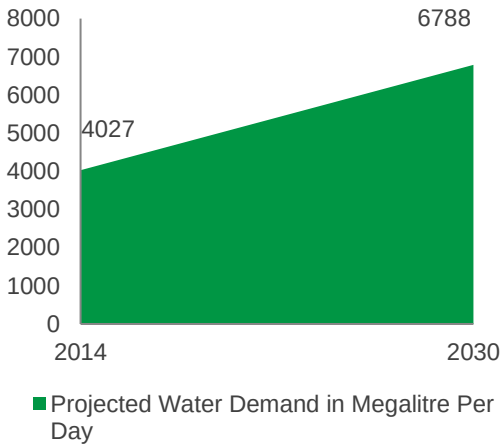

Figure 3.1: Projected Growth in Water Demand by the Textile Manufacturing Sector (Sargis and Abbott, 2015)

Absence of strict enforcement of laws involving wastewater disposal is at the root of the water pollution problem caused by the textiles industries. Industrial units in Bangladesh are classified into four categories: Green, Orange-A, Orange-B, and Red. Textiles factories with dyeing and chemical processing functions fall in Red category while those involved in washing only fall in Orange-B category. Textiles factories with wet processing operations belonging to Red category are required to have ETP installed by law. However, at a seminar jointly organised by Policy Research Institute and International Financial Corporation (IFC) on legal and regulatory issues related to environmental sustainability of the textiles sector in 2015 it was noted that experts estimate only 30 percent[22] of the more than 1300 dyeing factories in the country have ETPs (The Daily Star, 2015).

The unsustainable volume of water used by the textiles factories adds to the environmental woes of the industry. Excessive extraction of groundwater by the sector is contributing to the groundwater level

[22] Moazzem & Chowdhury (2016) estimates about 50% of the factories had ETPs installed by the beginning of 2016.

depletion by 3 meters every year on an average (World Bank, 2014)[23]. The impact is clearly visible in the updated groundwater zoning map published by Bangladesh Agricultural Development Corporation in 2010 which shows significant depletion in the groundwater levels between 2004 and 2010 in areas where textile factories are located. Estimates indicate that groundwater consumption by the textiles industries located in and around Dhaka may be equal to groundwater consumed by 12 million inhabitants of the region (World Bank, 2014). According to Sagris & Abbott (2015) export value of textiles industry will reach to $82.5 billion by 2030 which will be accompanied with 250% increase in water demand by the sector. The sector consumes 1,500 billion litres of water annually to produce 5 million tonnes of fabric causing continued decline of underground water levels in the Dhaka region (The Daily Star, 2015). Which means in Bangladesh 300 litres of water are consumed for producing each kilogram of fabric whereas the global standard in well below 100 litres per kilogram (The Financial Express, 2015). As shown in Figure 3.1, if the current practices of inefficient use of water by the textiles sector continues, by 2030 the sector will demand over 6,750 megalitres of water per day which is comparable to the annual water demand of about 60 million people in Bangladesh (Sargis and Abbott ,2015).

The reason for such excessive use of water by the Bangladeshi textiles factories is that unmetered extraction of groundwater by water intensive industries, including textiles, makes use of water virtually free. Even the water sold by Dhaka Water and Sewerage Authority (WASA) for industrial usage is provided at the very cheap rate of $0.30 per cubic meter (Sagris & Abbott, 2015). Such no to very low costs associated with water consumption de-motivates the factories to make capital investments in water efficient technology and use water responsibly.

3.2 Water Governance Policies Relevant to the Sector

Issues concerning water resource management and controlling pollution are addressed in the environmental policies of Bangladesh. The Environmental Conservation Act (1995) and the ECR (1997) regulate overall environmental compliance of the textiles industry. The Environmental Conservation Act (1995) makes the national intent of controlling industrial pollution clear. The ECR (1997) labels industries linked with the use and abuse of water as red category industries which means they pose serious threat to the environment. Bangladesh Water Act (2013) with provisions about sustainable water resource management is also in force to guide responsible use of water by industries. Implementation of these Acts on the ground, however, is not adequate.

Table 3.1: Provisions Relevant to Governance of Water Usage by Textiles Manufacturing Sector in Key Policy Documents

Policy Document	Provisions Relevant to Water Governance
Water and Sewerage Authority Act (1996)	Empowers the Government of Bangladesh to set up WASAs in different regions, with authorisation to execute any duty concerning water supply, sewage systems, solid waste collection, and drainage.
National Water Policy (1999)	Regarding industrial use of water the policy stipulates that: *"a. Zoning regulations will be established for location of new industries in consideration of fresh and safe water availability and effluent discharge possibilities.*

[23] Groundwater is the primary source of water in the nation. 79% of the water used in Dhaka region is sourced from underground (Sagris & Abbott, 2015).

Policy Document	Provisions Relevant to Water Governance
	b. Effluent disposal will be monitored by relevant Government agencies to prevent water pollution. *c. Standards of effluent disposal into common watercourses will be set by WARPO in consultation with DoE.* *d. Industrial polluters will be required under law to pay for the cleanup of water- body polluted by them."*
National Water Management Plan (2001)	Operationalises directives of the National Water Policy. Recognises *"willingness of Government and its agencies to put into the operation the new paradigms (decentralisation, cost sharing and recovery, community and private sector participation, non-traditional financing modalities, regulation, new rights, obligations and accountability)"* as a risk towards its implementation.
Bangladesh Water Act (2013)	Defers water pollution caused by industrial operations to the provisions of the Environmental Protection Act 1995. Sets punitive measures for violation of its compliance orders to five years of imprisonment and/or fine of BDT 10,000.
Seventh Five-Year Plan (2016-2020)	Promotes Zero Discharge of industrial effluents; land zoning for sustainable land and water use; and integration of environmental, climate change and disaster risk reduction considerations into project design, budgetary allocations and implementation process.

Source: Compiled and collated based on review of Acts and policy documents, and (Restiani, 2016).

3.3 Institutions Governing the Use of Water by the Sector

Institutions governing the use of water by the textiles manufacturing sector can be broadly put into two categories-government institutions, and private players and non-government institutions. A brief discussion on their role follows:

3.3.1 Government Institutions

A number of government institutions are involved in regulating use of water by the textiles manufacturing sector. They include:

Ministry of Textiles and Jute (MoTJ): The textiles manufacturing sector falls under the MoTJ which is responsible for formulating policies governing it. The Directorate of Textiles was set up in 1978 under MoTJ to oversee and implement the sectoral policies. MoTJ has been made responsible for approving the registration of textiles wet processing units given the installation of ETPs, and monitoring existing ETP capacities (Restiani, 2016).

DoE: The DoE plays the most prominent role in overseeing environmental governance of the sector. DoE has the sole authority to issue ECC to industrial establishments, inspect operations, and monitor compliance with the environmental laws of the country, including monitoring operations of ETPs. As noted previously in Chapter 2, DoE, however, lacks the manpower to deliver on its duties. It is also

incapacitated by weak monitoring mechanisms. Further, it is common knowledge that *"lack of incentives for front-line staff can make them vulnerable to vested interests"* (Sagris & Abbott, 2015).

Ministry of Water Resources (MoWR): MoWR has the mandate to oversee water management in the nation. Two agencies of MoWR, Water Resource Planning Organisation (WARPO) and Bangladesh Water Development Board (BWDB) are particularly relevant to our discussion. WARPO is responsible for national-level water resource planning which includes planning for locations of new industries taking into account the supply of water for industrial use and disposal of industrial wastewater, whereas BWDB is responsible for implementing, operating, and maintaining water related projects. Following the enactment of Water Act (2013), National Water Resource Council, chaired by the Prime Minister, and its Executive Committee have been given the responsibility to provide strategic direction for water resource planning and policy-making. The MoWR has given WARPO the responsibility to ensure implementation of Bangladesh Water Act (2013) on the ground. Confusion has arisen as to whether DoE would be responsible for overseeing the water management issues by the textiles factories under the purview of Environmental Conservation Act (1995) or whether WARPO will regulate water usage related issues under the purview of Bangladesh Water Act (2013).

MoLGRDC: MoLGRDC is responsible for executing national water supply and sanitation policies on the ground through local government departments. MoLGRDC is responsible for "*planning, construction, operations and maintenance of water supply and sewerage services, including issuing licences for sinking deep tube wells and charges for industrial water use"* (Restiani, 2016). It also sets service fees for wastewater treatment services.

Ministry of Industry (MoI): Broadly, MoI is responsible for formulating policies and strategies for economic growth and sustainable development of industries. The Industrial Policy (2016) requires the installation of ETPs and CETPs for industries that produce toxic wastewater, and has punitive provisions for non-compliance.

3.3.2 Private Players and Non-Government Institutions

Apart from the government institutions, there are a number of private players and non-government institutions endorsing responsible use and disposal of water by the textiles manufacturing firms in Bangladesh. They include: international buyers, international development organisations, and national trade organisations.

International Buyers: Most of the environmental compliance ensued on the ground is effected by the international brands as a measure of their image protection. Most remarkably, H&M alone forced construction of 65 ETPs in the span of only 12 month period as reported by Sagris & Abbott (2015).

International Development Organisations: A number of international development organisations have been working with the industry to green its mode of operation. Most prominently, IFC started a program called the Partnership for Cleaner Textiles (PaCT) funded by Netherlands and a group of international apparel buyers in January 2013 to help reduce the environmental impacts caused by wet processing of textiles. The program reached out to textiles manufacturers and created awareness about the environmental degradation resulting from wet, dyeing and finishing textiles units. They provided technical expertise on ways in which to reduce energy, water and chemical use as well as about using ETPs in line with local regulations. Till date the programme has worked with a total of 215 factories which are now using PaCT's clean production methods.

National Trade Organisations: Trade associations like the Bangladesh Garment Manufacturers and Exporters Association (BGMEA), the Bangladesh Knitwear Manufacturers and Exporters Association, and the Bangladesh Textile Mills Association also advocate responsible use of water resources to increase international competitiveness of the sector. Since 2010, BGMEA has been requiring factories to have ETPs to enlist as its member.

3.4 Political Economy Relating to the Sector

Being a developing country lacking adequately strengthened governance institutions Bangladesh struggles with enforcing its environmental acts and rules on the ground. *"Gaps in the regulatory framework, inadequate institutional capacity, lack of awareness about pollution management practices and the limited influence that communities can bring to bear on polluters"* (Moazzem & Chowdhury, 2016) come in the way of proper enforcement of environmental regulations in the textiles manufacturing sector.

DoE is aware that many small scale textiles factories operate without obtaining ECC, and that there are many factories which have properly obtained ECC by installing ETPs but do not actually run it regularly to avoid operational costs. There are even factories which do not even have the space to install an ETP (Moazzem & Chowdhury, 2016). DoE is often unable to take action against such malpractices because of inadequate manpower, and there is serious inertia against changing this situation on the ground. Lack of technical expertise to help industrialists with required advice on operating ETPs, lack of proper database for maintaining inspection records, lack of funds to upgrade laboratory testing equipment, and unscrupulous pressure on monitoring activities preventing adoption of punitive measures also come in the way of DoE's being able to properly perform its regulatory functions. Even when DoE manages to send its officials to inspect the operations of ETPs they do not get adeqaute support from factory managers. Entry of inspectors to the factory premises is often delayed until ETPs can be turned on, and on occassions drains through which untreated wastewater is disposed are concealed (Moazzem & Chowdhury, 2016).

Further, effective governance of water usage by the textile sector is hampered because of the existence of different institutions with overlapping mandates which creates confusion as to which institution is supposed to enforce what. No single institution has sufficient mandate to ensure overall sustainable development of the textiles manufacturing sector with the view of protecting both environment and business profitability in the long run.

Writing about individual enterprises and the national trade entities, Sagris & Abbott (2015) note that these organisations acknowlege that current levels of compliance with regulatory standards of effluent emissions is poor. However, collective action involving all enterprises is missing, as enteprises do not see any specific incentives to change behaviour. Even the potential penalities that non-compliance may attract does not function as an effective self-correcting mechanism, as these sanctions are ad-hoc.

Additionally, the textiles sector takes advantage of the absence of regulations pertaining to pricing of water extracted from underground using private wells for commercial usage. As a result, many of the textile mills extract underground water for textile dyeing and processing without paying almost anything for it and measuring how much water they're using. Even though supply of piped water by municipalities for commercial usage is metered and priced, the rates are minimal and flat, so there's little financial incentive by the textiles manufacturers to efficiently use water.

Another key issue shaping the political economy pertaining to the sector is that owners of the leading textiles manufacturing factories have strong political clout. They have strong capacity to oppose enforcement of regulations and regulatory reforms required to protect the environment from effects of the malpractices adopted by them. Arguments wielded by them to oppose strict enforcement of

environmental regulations or necessary reforms usually boils down to the narrative that any measure forced upon them that will add to their costs will make the industry less competitive in the intensely cut-throat international garments market.

After a number of highly publicised accidents that took place in recent times, including the one in Rana Plaza, international buyer groups imposed conditionality that environmental and social safeguards are ensured in the factories making their products. As a result, big factories that directly deal with international buyers became serious about mending their ways, but small factories that mainly deal with sub-contracts remained outside the purview of the conditionality set by international buyers (Morgan Stanley, 2015).

3.5 Strategic Implications

Based on the discussions on the policies, institutions, and political economy relating to governance of water usage by the textiles manufacturing sector, the following strategic implications can be drawn:

- Just as in the national level, the key to greening the growth of textiles manufacturing industry in the sectoral level lies in addressing inherent weaknesses of the governance mechanisms, working closely with the international community (development organisations and buyers), and making a business case for going green for the textiles industry owners.

- Environmental performance of bigger firms that deal directly with international buyers is better managed than that of smaller firms working as sub-contractors or dealing exclusively with domestic buyers. As such, these smaller firms will need to be dealt with on a priority basis to curtail water pollution caused by the sector.

- Even though Government of Bangladesh is progressively garnering success in having the industrial units install ETPs, it is failing to ensure that the ETPs are properly run. As such, strengthening monitoring mechanisms for ETP operation should be another priority concern.

- Given the political clout of the textiles industrialists and the intensely competitive nature of international textiles market, any measure for greening the growth of the sector that exerts excessive financial burden on the industry owners will not be accepted. On the other hand, given the increasing level of awareness about environmental sustainability issues in the international fora, the textiles manufacturing industry must be greened to hold onto international buyers in the coming years. Environmental sustainability is going to be one of the key conditions of economic sustainability of the sector going forward. As such, the financial cost of greening the sector should be shared by all concerned stakeholders-government, trade organisations, and the industry owners themselves. The Government of Bangladesh should also actively solicit green ODA for improving environmental performance of the sector.

3.6 Recommendations for Strengthening Governance of Water Usage by the Textiles Manufacturing Sector

Based on the discussion above and the overarching national level discussion presented in the previous chapter, we propose adoption of the following good-fit measures pertaining to water usage of the textiles manufacturing sector to green its growth:

Table 3.2: Recommendations for Strengthening Governance of Water Usage by the Textiles Manufacturing Sector

Recommendation for Strengthening Governance of Water Usage by the Textiles Manufacturing Sector
Recommendation 1: To lessen the financial burden on individual factories to install their own ETPs and to overcome the problem of not being able to ensure that factories that have ETPs installed actually use it regularly, initiative should be taken to establish Centralised Effluent Treatment Plants (CETPs) in textiles industry zones. The most important step towards greening the textiles manufacturing sector is ensuring usage of ETPs. However, due to the high cost associated with installing and operating ETPs, till date it has been impossible to ensure all textiles manufacturing factories have ETPs installed and that those who have it installed actually properly run it. To address this problem, initiative should be taken to establish CETPs. Recognising the advantages of CETP, Government of Bangladesh has already relocated leather factories to Savar industrial area. Government should direct efforts to implement similar measure for textiles manufacturing industry pooling together funding from relevant stakeholders. According to Sagris & Abbott (2015), textiles trade associations are willing to finance CETPs if Government of Bangladesh provides the land. Thus, one approach towards making CETPs for textiles manufacturing industries a reality could be government providing land, national trade associations and ODA supplying nations providing funds, and international development organisations providing technical support and supervision[24] for its establishment.
Recommendation 2: For factories that are scattered away from industrial clusters and cannot be connected to such proposed CETPs, green finance at cheap rates should be made available to install and operate ETPs at their premises. Green term loans at low costs for installing ETPs, and green working capital loans at low costs for operating them-both will be required. The Green Transformation Fund for the Textiles and Leather Sectors set up by Bangladesh Bank that could serve as a source of such term loans currently remains unpopular for complex procedures and bureaucracy involved in accessing the fund. An enquiry should be initiated to pinpoint the bottlenecks in proper utilisation of the fund. Further, loans disbursed for operating ETPs are currently not recognised as direct green finance as per the definition set by Bangladesh Bank and factories currently have to borrow money for operating ETPs at regular working capital loan rate. Avenue for availing green working capital loan at a lower rate than regular working capital loan should be created so that the cost of operating ETPs becomes cheaper for textiles manufacturers.

[24] GIZ is already active in field and is help Bangladesh Economic Zone Authority establish two model CETPs (Begum, 2017).

Recommendation for Strengthening Governance of Water Usage by the Textiles Manufacturing Sector

Recommendation 3: Given the chronic shortage of manpower DoE struggles with, the task of regular inspection of ETP operation by the textiles factories may be delegated to local government institutions. As the effects of pollution in local water bodies caused by textiles manufacturing firms are visible to the naked eyes, accountability could be established more effectively with local government authorities in ensuring factories are not able to continue their operations polluting their vicinity.

DoE, with its staff size of around 700 people, is responsible for enforcing all the provisions of Environmental Conservation Act (1995) and ECR (1997) across all industrial sectors all over Bangladesh. Understandably, it is not able to deliver on its responsibility of ensuring regular usage of ETPs by the textiles manufacturing factories effectively. Given the proximity of local government authorities to the textiles manufacturing plants, they could be delegated the responsibility of monitoring regular operation of ETPs by the textiles manufacturing firms. Proper incentive mechanisms should be in place so that the inspectors do not find themselves vulnerable to vested interests.

Recommendation 4: The overlaps in mandates of different government institutions in regulating responsible use of ground water and proper disposal of wastewater should be disentangled.

Effective governance of water usage by the textiles manufacturing sector is hampered because of the existence of different institutions with overlapping mandates which creates role-confusion. No single institution has sufficient mandate to ensure overall sustainable development of the textiles manufacturing sector with the view of protecting both environment and business profitability in the long run. Whereas MoTJ and MoI concern themselves with primarily the business side of the sector, three different ministries - MoEF, MoWR, and MoLGRDC – are responsible for overseeing aspects of water usage and disposal by the sector. Specific agencies need to be held responsible for specific tasks concerning sustainable development of the sector so that accountability can be established.

Recommendation 5: The business case for efficient use of water should be convincingly made to textiles industry stakeholders.

As noted in World Bank (2014), "*a mill's water footprint is a powerful marketing tool, and is arguably the foremost environmental concern among multinational brands within their textile supply chain."* As such, investments in improving water usage and wastewater disposal practices of the sector must be made not just to save the environment but to save the sector's business. Plus, the unsustainable use of water by the textiles industry makes the industry as a whole susceptible to the impacts of future water shortage threatening the economic growth of the sector. The business case for efficient and sustainable use of water should be widely communicated so that industry owners and other stakeholders come to realise investments made in efficient use of water will bring quantifiable positive financial returns to their enterprise.

4 Conclusion

Our analysis points out that in both national and sectoral level, the nature of the obstacles towards strengthening governance for green growth of Bangladesh are similar.

Because of inadequate stakeholder participation in the decision making and policy formulation process, political, bureaucratic, and private-sector buy-in of the high-level policies at the implementation level is usually weak. We recommend that a National Inclusive Green Growth Strategy and sector-level Green Growth Action Plans for manufacturing, agriculture, energy and transport sectors should be formulated and we particularly insist that these policy documents should be formulated in a process that ensures stakeholder participation. Bangladesh may seek inspiration from the successful design and implementation of Colombian MAPS project in this regard. The suggested national-level strategy and sector level action plans would provide strategic vision for greening the growth of the nation.

No number of acts or rules can ensure achievement of effective governance unless rule of law is established on the ground. We urge that required regulatory reforms are brought in to empower the Environment Courts in delivering environmental justice.

Then, there is the matter of establishing transparency which is critically important for creating an enabling environment for good governance for green growth. In the age of information technology, however, this is among the easier milestones to cross towards achievement of that goal. Creating awareness about the use of the Right to Information Act, proactively disclosing environmental information in the public domains, scaling up the arrangements of civil society monitoring and participation in environmental decision making process-could go a long way towards establishing transparency in Bangladesh's governance mechanisms.

Further, strengthening governance for green growth will require that governing institutions are responsive to all the stakeholders they serve. To instil responsiveness in Bangladeshi governance mechanisms towards achievement of green growth, measures like empowering local governments to take green initiatives in their jurisdictions is recommended.

Our discussion in the paper reveals that overlapping mandates and responsibilities of different governing institutions creates a confusing, ineffective regulatory environment. The importance of separating the roles and responsibilities of different governing bodies for establishing accountability cannot be overemphasised.

Effective governance for green growth both at the national and sectoral level can only be achieved through an integrated approach of strategic planning and actions, and cross-ministerial collaboration. A top-down approach of establishing green growth as a national priority supplemented by a bottom-up approach of institutionalising green growth agenda and delivering results on the ground will be required. Green growth can only be achieved in Bangladesh when there is strong political and private sector buy-in of its importance. Green growth needs to be recognised by the leaders and institutions governing the country as an opportunity to foster economic development and to ensure continued national prosperity against the reality of depleting national resources. The Government of Bangladesh will have to lead the private sector to transition into a green pathway of economic growth from the unsustainable, polluting practices – a difficult challenge that must be embarked on.

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Annex-1: Key Informant Interviewees and FGD Participants

Name	Professional Affiliation
Abdullah Mohammad Talha	Director, Noman Group
Abdullah Nadvi	Senior Research Associate, Unnayan Shomonnoya, Dhaka
Atiur Rahman	Former Governor, Bangladesh Bank; Chairman, Unnayan Shomonnoya; and Professor, Department of Development Studies, University of Dhaka
Eusuf Mehedi	Assistant Director (Administration), Bangladesh Climate Change Trust
Helal Uddin Nizami	Commissioner, Bangladesh Securities and Exchange Commission
Ishtiaque Uddin Ahmad	Former Chief Conservator of Forests, Bangladesh; and Country Representative, International Union for Conservation of Nature (IUCN)
Dr. Khaliquzzaman	Environmental Consultant, The World Bank Country Office
M. Abu Eusuf	Director, Centre on Budget and Policy, University of Dhaka
Manoj K. Biswas	General Manager, Sustainable Financing Division, Bangladesh Bank
Md. Abdul Aziz Raihan	Merchandiser, H&M Bangladesh
Md. Ashraful Haque	Country Coordinator, SilvaCarbon Bangladesh, US Forest Service-International Program
Md. Saeed Islam	Adjunct Faculty, Daffodil International University; Research Associate, Unnayan Shomonnoya, Dhaka
Mir Mehbubur Rahman	National Procurement Trainer and Procurement Specialist and Faculty, Master of Procurement and Supply Management (MPSM) programme, BRAC University
Md. Mizanur Rahman	Chairman, Rahman Knit Garments Limited
Nasir Uddin	Commissioner, Anti Corruption Commission
Parvez ahmmed	Officer, South China Bleaching and Dyeing Factory Limited
Qazi Mutmainna Tahmida	Joint Director, Sustainable Financing Division, Bangladesh Bank
Rashadul Islam	Secretary, Bangladesh Climate Change Trust; and Additional Secretary to the Government of Bangladesh
Sukumar Das	Director, Department of Environment, Government of Bangladesh
Sultan Ahmed	Director (NRM), Department of Environment; and Joint Secretary to the Government of Bangladesh
Sultan Hafeez Rahman	Executive Director, BRAC Institute of Governance and Development; and former Director General, Asian Development Bank, Manila
Syed M. Riadh	Program Officer, UN-REDD Programme, UNDP-Bangladesh
Taiabur Rahman	Professor, Department of Development Studies, University of Dhaka

Additionally, mid to senior level officials of the following institutions were interviewed who preferred to remain anonymous:

Ministry of Environment and Forests
Sustainable and Renewable Energy Development Authority
Public Works Department
Forest Department

Annex-2: Administrative Structure of the Local Government Institutions in Bangladesh and Allocation of Funding Received from BCCTF at Different Levels