



CLIMATE CHANGE STRATEGY
2016-2020

BRAC's Climate Change Strategy

2016-2020

**This document was approved in the 144th meeting of BRAC Governing Body held
on Wednesday 4 October 2017**

FOREWORD

BRAC acts as a catalyst, creating opportunities for people living in poverty to realise their potential. Founded in 1972, the organisation specializes in piloting, perfecting, and scaling innovations to impact the lives of millions. BRAC was born in Bangladesh, and operates in 11 countries across Asia and Africa. BRAC's aim is to change systems of inequity, empower people, and lift them out of situations of poverty. However, even with its wide reach of 120 million people, all progress fall under threat with the adverse impacts climate change brings.

In today's time, Bangladesh is one of those countries most vulnerable to the effects of climate change, with two-thirds of the country living less than five metres above sea level. Climate Change has an inherent linkage with development and poverty reduction, although the correlation among them is not always positive. Again, the size and magnitude of the impacts of climate change on development and development on Poverty Reduction are often disproportionate and multi-faceted. Given BRAC's initiative towards alleviating poverty, climate change puts BRAC to find out a comprehensive strategy to address its causes and find solutions to enable its programmes to combat and adapt to its effects, as well as to mobilise its financial resources, and to choose cleaner technologies for sustainable development. BRAC's response must have to travel beyond its measures to combat the aggravated climate change.

Combating the impacts of climate change and the challenges ahead require our collective efforts. And, therefore, "Building resilience to climate change" has been set as one of BRAC's eight programmatic priorities in its five-year strategy 2016 - 2020. The BRAC Climate Change Strategy arose from the organisation's willingness and commitment to invest in adaptation and mitigation to climate change. BRAC recognises that, a continued engagement is of essence in capacity building to respond to existing and emerging climatic hazards, and in the development of scientific background for adaptation and mitigation needs to be reflected in the organisation's activities, which might eventually facilitate an institutional level integration and scale up of adaptation and mitigation efforts to climate change in the mid to long term. The said realisation, therefore, adopted the five thematic strategies stipulated in this policy statement that address climate change adaptation as well as mitigation through action research, capacity building and network building to achieve better synergy to negotiate climate change. This strategy document also depicts that, BRAC's adaptation and mitigation initiatives should be backed up by latest science and information on global impacts of climate change.

To that end, the strategy will act as a guideline for BRAC to support and empower communities in their response to the adverse impacts of climate change. It will provide an outline for BRAC's decision makers to streamline all its development activities in accordance to the scale of climate change impacts. It will also simultaneously aid in aligning all its efforts towards contributing nationally to achieve the Sustainable Development Goals (SDGs).

This strategy is not a plan with specific deliverables, but it sets out a vision for BRAC that can be potentially and realistically achieved with appropriate institutional commitment. It is a living document, and shall be continuously updated and enhanced.

I want to extend my appreciation to all those who have contributed their time and commitment to the successful completion of this climate change strategy, and I hope that BRAC will continue to improve the quality of lives that are impacted most by the effects of climate change.

A handwritten signature in black ink, appearing to read 'M. Musa', with a horizontal line underneath.

Dr. Muhammad Musa
Executive Director, BRAC

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The Climate Change Strategy 2016-2020
is developed to transform BRAC into a
Climate Smart Organisation



BACKGROUND

Climate change in the context of Bangladesh

Climate change is considered to be one of the greatest threats to humankind in the 21st century. The Fourth and Fifth Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC) have stated that warming of the climate is unequivocal and human activities are responsible for it. Bangladesh is one of the most vulnerable countries to the risks of climate change. Although the country is contributing virtually zero to greenhouse gas (GHG) emissions, which is the main component of global climate change, the country's geographical location and topography deems it highly vulnerable to the effects of climate change. The IPCC's Third Assessment Report uses four families of scenarios or "storylines" (A1, A2, B1, and B2) to model climate change predictions. In Bangladesh context, scenario family A1 is typically used, which features rapid economic growth, a global population that peaks in mid-century and then declines, and has rapid introduction of new technology.

The majority of the population's heavy dependence on agriculture and natural resources for their livelihoods in this poverty-stricken country increases these people's vulnerability to climate change. Hence climate change would trigger an impact on the climate-vulnerable ecosystems, affect its agriculture including crop cultivation, fisheries, livestock and poultry rearing, which in turn would affect food and nutrition security, as well as affect the land use and land use planning, water resources management, human health, settlement and society and rural infrastructure of Bangladesh.

The impacts are being felt and over the past few decades, there has been noticeable warming in Bangladesh. Summers and winters have become hotter, with rises in both the maximum and minimum temperatures. The eastern hill tracts and the northwest region have observed the most prominent increases in temperature. In recent years, there has been more short-term variability observed in weather patterns, both in terms of heat and rainfall trends (erratic rainfall, either lack of it or untimely or excessive/heavy or sudden rainfall).

Again, the country is extremely susceptible to natural hazards and human-induced hazards both in terms of acute climatic events (flood, cyclone, salinity intrusion, drought and river bank erosion) and environmental degradation (salinisation and soil degradation), and the aggravated climate change is triggering new climatic hazards, causing more frequent and intensified climatic disasters. Increasing tendencies in the intensity and frequency of extreme weather events in Bangladesh over the last century and into the 21st century are now evident. All natural disasters and climatic events seen in Bangladesh that are attributable to climate change are expected to become more intense and more frequent.

Bangladesh is prone to flooding because of being situated on the Ganges Delta and the many distributaries flowing into the Bay of Bengal. Eighty percent of Bangladesh is floodplain and it has an extensive coastline rendering the nation at high risks of periodic, widespread damage. The country is prone to river floods, rainwater floods, flash floods and also coastal floods that are induced by storm surges. Coastal flooding combined with the bursting of river

banks is common and severely affects the landscape and settlements in the coastal region. Occurrences of catastrophic flood events have been experienced such as in 1987, 1988, 1998 and 2004. The 2007 South Asian floods also affected a large portion of Bangladesh. These severe flood events are expected to become more frequent in the coming years.

The coastal region has also been hit by catastrophic and severe cyclones such as in 1970 and 1991 and in the last decade, cyclone Sidr in 2007 and Aila in 2009. More recently, in May 2016, the region was hit by cyclone Roanu.

Both cyclone and flood events destroy physical infrastructure i.e., houses, road networks, educational and medical infrastructure and coastal embankments etc. The recent events of floods, cyclones and frequent storm surges have increased the losses and damages to people's lives and livelihoods particularly to those who are most exposed to these disasters. During the 2004 floods, two-thirds of the country went under water. After the devastating cyclone Sidr in November 2007, major infrastructure like houses, road networks, drinking water sources, sanitation facilities and education institutions had been destroyed permanently in the affected coastal areas of Bangladesh. Similarly, after cyclone Aila in May 2009, saline water penetrated inside the coastal embankments and destroyed agricultural lands. Even grass cannot grow there now due to excessive salinity in soil and water. The aftermath of this disaster was followed by migration of the affected coastal population to other areas. Some people went to Dhaka City and some to Satkhira Sadar, Khulna City, Chittagong City and Narail Sadar. Destinations of many

other migrants who travelled to other parts of the country are not known. The geographic scope of cyclone Roanu was greater than in previous years (Aila, Mahasen and Komen) with 15 districts affected. The cyclone left 27 (15 men and 12 women) people dead and in the most affected seven districts of Borguna, Bhola, Chittagong, Cox's Bazar, Lakshmipur, Noakhali and Patuakhali about 1.3 million were affected and over 215,000 people displaced.

Bangladesh is exposed to rising sea level in its densely-populated coastal region, together with a decrease in upstream freshwater flows, which has caused a notable increase in soil and water salinity in these certain areas. The coastal districts are also experiencing higher levels of tidal inundation. The salinity intrusion is not only affecting the vast coastal ecosystems, water and hampering agriculture and food production, but the sea level rise may also dislocate millions of people in the near future. It has been and would create more severe problems in the rural livelihood system and in sharing of scarce resources (land, water, forest and fisheries) and thus it will cause more rural to urban migration and generate social conflicts. The rural poor would be pushed to move into urban slums and the emerging internally displaced population would be putting enormous pressure on the unready urban economy and infrastructure (housing and communication) as well as on basic services such as water supply, power, health and sanitation.

Riverbank erosion is one of the major natural disasters of Bangladesh and an issue of major concern. It causes great distress to thousands of people every year living along the banks of rivers in Bangladesh. To date,

erosion alone has rendered millions of people homeless and has become a major social hazard. Those who live near river banks become victims of erosion and are forced to change their livelihoods and communities. Most of the victims of riverbank erosion become slum dwellers in large urban and metropolitan cities and towns. Since 1973 major rivers like the Jamuna, the Ganges and the Padma have eroded around 1,590 square kilometres of floodplains making 1.6 million people homeless. Not only the floodplain dwellers, but the char land dwellers are also vulnerable to river erosion.

Floodplains are located in the north-western, central, south central and north-eastern regions because of the existing river network of Bangladesh. Floods and riverbank erosion are concurrent events where most of the time flood and erosion occurs simultaneously or flood is followed by riverbank erosion. Since flood is directly subjected to rainfall and rainfall pattern has been changing over time, climate change is expected to have influence on riverbank erosion.

The country also suffers from drought, which is seen especially in the north-west region, and can result in famine. In Bangladesh, agriculture is the largest sector of the economy, but agricultural production is under pressure in drought-prone areas with climate change aggravating the situation further as it is expected to cause more frequent and intense droughts with increasing temperature. Higher temperature would mean more heat waves, more hot days and heat stress, leading to increased crop diseases and pest attacks; frequent dry spells throughout the monsoon season; increased threat of damage to both dry season and monsoon crops; increased energy demand and reliability on energy supply

which is decreasing; and, increased diseases in livestock. Again, increased summer drying, extended dry season and drought condition would mean decreased water resources (both quality and quantity), decreased ground water resources because of over exploitation, and decreased surface water resources in ponds and rivers etc. These impacts are eventually leading to decreased crop yields and decrease in fish resources.

In terms of health impacts, the rise in temperature will intensify water and vector-borne diseases. Higher maximum temperature would mean more heat waves and more hot days causing heat stress leading to increased incidence of illness among the children and the elderly. Increased peak wind intensities and nor'westers throughout the summers would mean increased threat to human lives and the risk of different infectious epidemics. It has been found that the women down in the south are suffering from pre-eclampsia and eclampsia during their pregnancy period due to intake of saline water and the incidence of skin diseases have also increased from use of saline water for cleaning purpose.

The combination of frequent natural disasters, high population density, poor infrastructure and low resilience to economic shocks, make Bangladesh especially vulnerable to climate change risks. Such impacts will seriously hamper any development that we try to accomplish in the coming years toward reducing poverty and sustaining the poverty reduction for those living in ecologically fragile regions of the country, such as riverine islands (chars) and the coastal belt. Therefore, climate change impacts impede the path of achieving sustainable development objectives in Bangladesh.

Climate change in the context of BRAC

BRAC, a leading non-government organisation (NGO) based in Bangladesh and working in 10 countries across Asia and Africa, started its in 1972 right after the independence of Bangladesh. Its activities were limited to relief operations in the remote villages of Bangladesh at the very beginning, and gradually shifted to other development interventions to holistically support people living in poverty. BRAC has formed a unique ecosystem to contribute to poverty alleviation¹ in which it creates opportunities for the poor² by equipping people with the right tools and creating opportunities so that they can realise their potential. Approximately 135 million people have benefited so far from BRAC's services.

BRAC's mission is to empower people and communities in situations of poverty, illiteracy, disease and social injustice. All of its interventions have an aim to achieve large scale, positive changes through programmes addressing different economic and social aspects of our society towards enabling men and women to realise their potential. Special focus is given to women in ensuring their social and financial empowerment. The

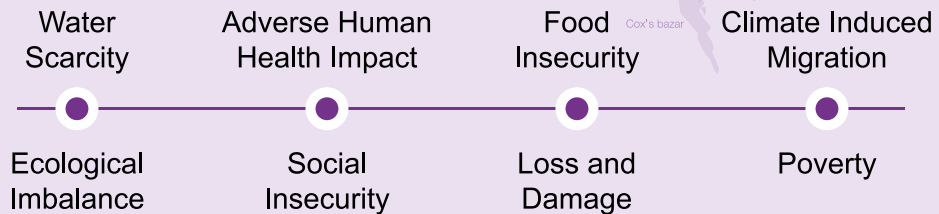
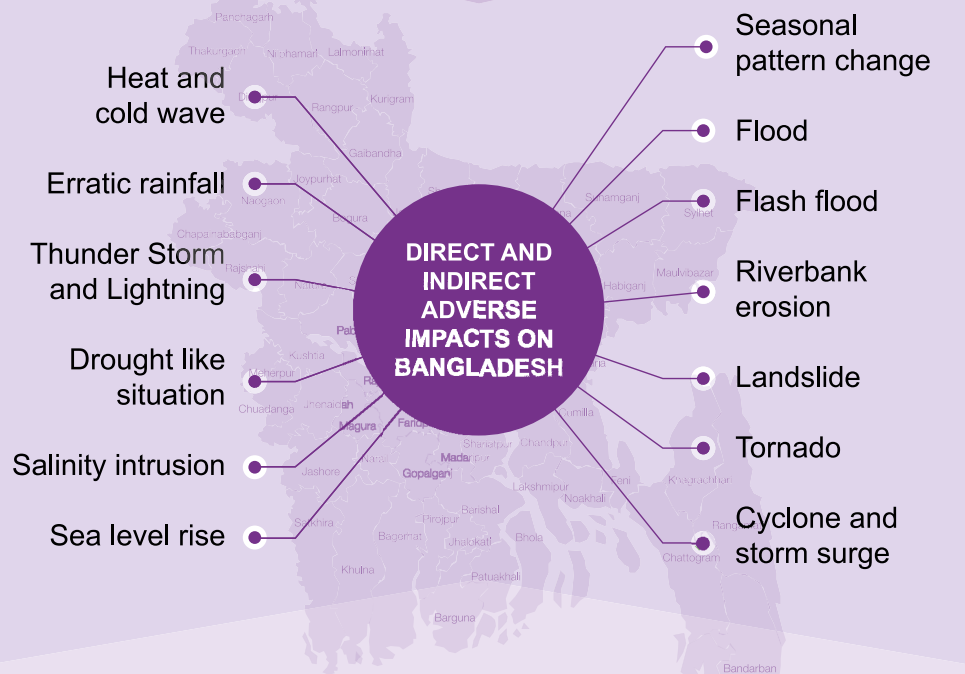
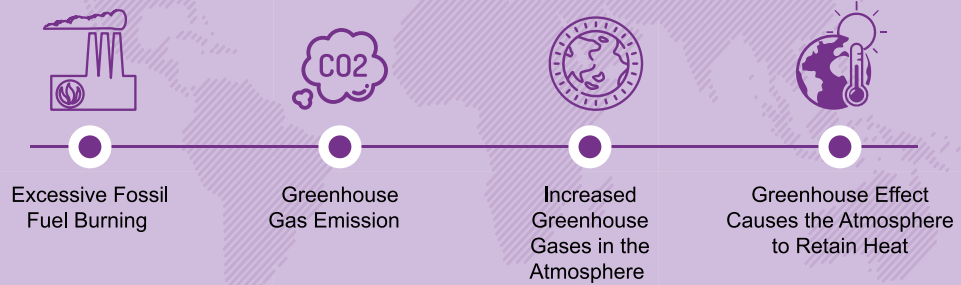
priority areas of activities include grassroots empowerment through health and educational support, empowering farmers to ensure food security through technical support, inclusive financial support through financial tools and techniques, and self-sustaining solutions towards poverty alleviation.

BRAC acknowledges that economic, social and environmental development of a nation is the only way to achieve sustainable development. However, all the progress that have been made so far will come under threat due to global climate change and its associated impacts across the different sectors of Bangladesh. Growing weather unpredictability and increased frequency and intensity of climatic events will put agriculture under threat. Irrigation will be under severe threat due to irregular, insufficient or heavy rainfall, early and/or late flood, and drought, which, in turn, will put food security and economic development under threat. Increase in temperature will increase vector-borne diseases, and increase vulnerability of child and maternal health. The traditional role of most of women in Bangladesh is the management of natural resources in households. Climate change is most likely to affect the availability of natural resources. The extreme and erratic weather scenario,

- 1 The ultra-poor programme aims to bring economic and social changes in ultra-poor households, and assist them in getting access to the mainstream development programmes, thus creating aspirations within the severely disadvantaged group of population with two different strategies: i) Specially Targeted Ultra Poor (STUP) and ii) Other Targeted Ultra Poor (OTUP). Both the strategies serves the bottom of the poorest 17.6 per cent of the population who live below the poverty line where OTUP strategy serves the segment within the ultra-poor who are marginally less deprived than STUP, but still firmly belong to the same extreme poverty group. The support package for OTUP members is similar to that of STUP with the exception that in OTUP, soft loan is provided to purchase their asset rather than receiving the asset as a grant which is done in STUP: <http://www.brac.net/targeting-ultra-poor/item/748-programme-approaches>
- 2 BRAC seeks to understand the heterogeneous needs of the poor and design microfinance services accordingly. BRAC's microfinance programme offers diversified financial services to poor people unable to access mainstream banking services. We use our expertise in other areas such as rural development, education and health to innovate financial services that meet the specific needs of different groups. These include products tailored for poor rural and urban women, landless and land-holding farmers, migrant workers, and small entrepreneurs. Clients are able to access both savings products and loans. However, BRAC's microfinance products are not suitable for everybody. It is to be noted that BRAC operates a separate Targeting the Ultra Poor programme for the most vulnerable: <http://www.brac.net/microfinance-programme/item/855-overview>

Climate change is an inevitable and urgent global challenge with long-term implications for the sustainable development of all countries.

CAUSES OF CLIMATE CHANGE



the loss of livelihood and extreme poverty would likely result in discouraging families to send their children to schools. And last but definitely not the least, climate change may alter the quality and productivity of natural resources which may put biodiversity and ecosystems at risk and, as a result, our environmental sustainability will be at serious stake. In order to combat such challenges, all the programmes at BRAC will have to be made climate smart by mainstreaming climate change issues into the development activities, as well as putting focus on strategic planning to address climate change in Bangladesh.



Photo credit: BRAC/Nahid



**CLIMATE CHANGE
STRATEGY: 2016-2020**

Rationale for the climate change strategy

The ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC) is to assure that no 'dangerous' interference with the climate system occurs. The two vehicles to achieve this are mitigation (in order to decrease the level of interference) and adaptation (in order to make the level of occurring interference 'non-dangerous').

Activities in mitigation are easy to assess: The metric to judge success is the emission reduced/avoided in CO₂-equivalents. This implies that there is no direct positive link between success in development activities and success in mitigation. However, activities can aim to achieve both and provide a double dividend.

On the other hand, activities in adaptation are less easy to categorise. The continuum of adaptation activities ranges from a focus on human vulnerability to concrete climate impacts. Since climate impacts are "heavy tailed" and a great uncertainty exists how, where, and what kind of climate impact might strike, most decision makers will opt for a 'no regret' adaptation strategy that is reducing vulnerability (Germanwatch, 2010).

While development paradigm and reduction in vulnerability to climate change are closely related, they are not synonymous. Poverty reduction does not automatically reduce the vulnerability of the poor to climate stressors. Similarly, some climate-related adaptation policies do not reduce the vulnerability; in some cases they could even render some groups more susceptible. An example for the former is the promotion of shrimp farms in coastal areas with the aim to create income

for people in rural areas. Concomitantly, the accompanying destruction of mangroves resulted in higher vulnerability, especially of the poor strata of society, against climate-related risks such as storms, flooding and sea-level rise. An example for the latter could be big adaptation projects in the water sector, interventions which, in the past, have proven problematic for project affected groups.

Applying a pro-poor focus in all three areas – the Sustainable Development Goals (SDGs), the mitigation and the adaptation processes – can generate substantial synergies. All agendas could benefit from a "right-based approach" to target and prioritise people living in poverty, based on their civil, economic and social human rights which are currently being practiced by BRAC. A further intrinsic link of adaptation is to promote climate resilient development. In other words, transforming development programmes as "climate-smart" implies that investments in mitigation and activities promoting development need to be cognizant of the scale and speed of climate impacts over time.

The rationale for this strategy is to provide an enabling mechanism that will assist BRAC to effectively address the impacts of climate change and support adaptation as well as mitigation initiatives through their integration into its development programmes. The formulation of this strategy is an important milestone for BRAC in providing a framework that will facilitate and harmonise BRAC's efforts to respond to climate change and transform its activities towards climate-resilient development.

As BRAC calls for greater attention to tackle both the persistent (poverty, un / underemployment, under nutrition etc.)

and emerging problems (increased natural disasters as effect of climate change, unplanned urbanisation etc.) in its 2016-20 strategy, it focuses on 'building resilience to climate change and develop capacity for emergency response during natural and man-made disasters' as one of its eight programmatic priorities in next five years to achieve its overall goal. With its huge knowledge base and specialised problem-solving skills, widespread social and institutional network- developed while working for the diverse communities with different socioeconomic development needs in Bangladesh and 10 other countries- and tremendous potential to influence the climate sensitive development in Bangladesh and elsewhere, BRAC can contribute immensely to combat climate change. BRAC's Climate Change Strategy (2016-20) comprising of five overlapping themes of adaptation, mitigation, action research, capacity building, collaboration and networking- is aligned with its 2016-20 strategy so that all programmatic interventions can contribute to bring about transformational change in this regard.

BRAC's mission to address climate change in Bangladesh

To empower people to adapt and respond to the effects of climate change while working to mitigate future impacts through sustainable development practices. BRAC's climate change activities aim to integrate with development initiatives to improve quality of life, protect resources and build awareness in the communities we serve.

BRAC's vision to address climate change in Bangladesh

A progressive development process where BRAC and all its programmes synergistically

work towards overcoming the dynamics of climate change that best serves the community, partner with development organisations and all other stakeholders through a holistic approach.

Strategic goal and objective

The goal of this strategy is to enable BRAC to effectively respond to and contribute to global and national efforts to minimise climate change impacts through adaptation, mitigation, research and capacity building initiatives with an intention to achieving Sustainable Development Goals (SDGs) and significantly contribute to ensure national climate resilient development.

The overall objective of this strategy is to support BRAC's decision makers to analyse how climate change can be mainstreamed into different programmes across different sectors. This strategy is not a plan with specific deliverables, nor does it define a particular level of ambition, but it sets out a vision for BRAC that can be realistically achieved with appropriate institutional commitment. This strategy will help to develop programmes, establish institutional networks and build capacity in addressing climate change.

The strategy documentation process

The process of formulating BRAC's climate change strategy started when BRAC's Disaster Management and Climate Change, or DMCC programme (previously called Disaster Environment and Climate Change, or DECC programme) and the Centre for Climate Change and Environmental Research (C3ER) of BRAC University had conducted a research project titled "Moving Towards

Climate Smart BRAC”. Several sensitisation workshops were carried out with BRAC officials at the national and local levels to draft a road map on the integration of climate change issues into BRAC’s programmes and strategies to transform its programmes into being climate resilient on a national scale.

In addition, a national level workshop with multi-disciplinary national and international experts, donors and development practitioners was conducted to address how BRAC will respond to climate change in the next five year period (2016-2020).

During the strategy formulation process, the core team responsible had carried out meetings with chairperson, vice-chairperson,

executive director and programme directors of BRAC to take into account their opinions and views towards the transformation of BRAC into a “climate-resilient” organisation. This strategic document is the integration of those expert opinions that came about from the sensitisation workshops, the national level consultation workshop and key informant interviews (KIIs).

Themes

This strategy comprises of a combination of overlapping themes where BRAC will work in the field of climate change. There are five thematic areas where BRAC will focus for the next five years (2016-2020) based on its national level priorities.

Figure 1: BRAC Climate Change Strategy



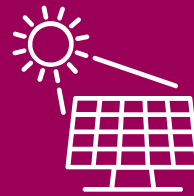
THEME 1

Response to climate
Change through adaptation



THEME 2

Response to climate
change through mitigation



THEME 3

Response to climate change
through action research



THEME 4

Capacity building



THEME 5

Collaboration and
networking





THEME 1

Response to climate
Change through adaptation



Theme 1: Response to climate change through adaptation

Thematic goal

Reduce vulnerabilities of community people by improving the adaptation capacity of individuals and society

Adaptation is the highest priority for Bangladesh and should be the primary focus. As the effects of climate change are becoming increasingly evident, adaptation measures will become crucial to continue on the path of sustainable development. Adaptation measures could vary for any specific sector. For instance, different types of salt tolerant rice varieties have been innovated by the Bangladesh Rice Research Institute (BRRI) and adopted in coastal areas of Bangladesh where soil and water salinity is a great concern. Similarly, submergence tolerant rice varieties have been practiced in flood prone areas. Hence, community and region specific adaptation measures need to be considered while responding to the impacts of climate change. BRAC has a huge scope to consider local level adaptation measures in different sectors of its activities and in promoting those adaptation measures to improve adaptive capacity and pull out poorer communities from the negative impacts of climate change.

A variety of adaptation measures will need to be mainstreamed into each major programme. Mainstreaming can mean adopting adaptation measures into different projects or forming separate projects. Each programme will need to identify ways in which it can encourage its clients to adapt to climate change impacts. A climate change unit formed will act as a hub for sharing information and ideas on adaptation with relevant programmes, finding successful examples from around the world and supporting programmes in their adaptation efforts as necessary. They will

need to take climate change projections into consideration in order to better understand the risks. Some adaptation measures have been suggested here, although the climate change unit will be able to offer more ideas and solutions over time.

Priority Initiatives

During the first two years

- Mainstream the integration of the concepts of climate change adaptation (as well as mitigation) with disaster risk management in BRAC's programmes towards making the organisation climate smart e.g. create scope for integration in BRAC's current standard operating procedures (SOP) for emergency response
- Promote educating the different BRAC programme staff and member participants about different climate change issues towards making the organisation climate smart;
- Promote education and awareness on climate change resilience and conduct trainings to develop capacity of students, teachers and parents to adapt with climate-induced natural disasters at the community level in both rural and urban areas

During the five-year period

- Promote climate resilient agricultural support system to increase agricultural production in climate-vulnerable ecosystems:

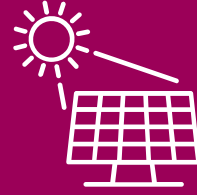
- Promote climate resilient crops (heat, saline, submergence, fog tolerant) and cropping patterns at the rural community level
- Introduce climate risk and uncertainty management loan schemes to help farmers cope with the uncertainties in production due to abnormal climatic behaviour
- Promote feasible crop and/or livestock and poultry insurance schemes for farmers through the introduction of a climate risk and uncertainty management insurance scheme to protect farmers from the uncertainties in production due to abnormal climatic behaviour
- Introduce group loan and insurance schemes for covering losses and damages incurred in agricultural and/or livestock and poultry production
- Conduct on farm small scale irrigation water management training for farmers
- Promote alternative irrigation system using reclaimed wastewater
- Promote climate and natural disaster resilient infrastructure at the community level:
 - Promote climate and natural disaster resilient housing e.g. houses with raised plinth level in coastal and flood prone areas
 - Introduce elevated latrines in areas likely to experience increased flooding
 - Promote climate resilient and natural disaster resilient school infrastructure to ensure safe classrooms for students and teachers
 - Promote rainwater harvesting system, desalination and mini reverse osmosis plants in saline prone areas
- Promote alternative livelihood options through support to women, e.g., nursery and homestead/kitchen gardening, dyke farming, floating gardens, crab fattening, fish culture in floating net cages, pond excavation and re-excavation, livestock rearing (goat and sheep), poultry farming, expansion of pond aquaculture etc.
- Introduce livelihood loans to introduce non-climate sensitive livelihood options i.e., livelihood systems that are not directly related or affected by climate change impacts in order to reduce dependency of people on climate sensitive livelihood options
- Promote loan and insurance schemes for building climate resilience at the community level:
 - Introduce group loan scheme for climate resilient community development against climate change impacts
 - Introduce climate sensitive micro insurance scheme to protect borrowers from the sudden effects of natural disasters and hazards
 - Introduce climate adaptive house loan scheme to help borrowers adapt with the effects of climate change with respect to their physical capital
 - Introduce stress release loan scheme to release the sudden financial stress of the borrowers
- Promote the idea of implementing 'boat hospital' to ensure access to health facilities for the climate-vulnerable communities in remote locations
- Promote solid waste management plants at the community level
- Enhance community early warning systems at the community level





THEME 2

Response to climate
change through mitigation



Theme 2: Response to climate change through mitigation

Thematic goal

Contribute to reduce GHG (greenhouse gas) emissions by investing in low carbon and climate resilient pathways, through promotion of sustainable and clean energy solutions

Climate change mitigation is mainly the responsibility of those countries which are emitting more GHGs into the atmosphere through their development activities. Though the contribution of Bangladesh to GHG emissions is negligible (presently 0.35% of global emission), the country has ample scope to play a part in climate change mitigation through clean energy driven economic development, which is foreseen as a key national goal in the future. The country has committed an unconditional contribution to reduce GHG emissions by 5% from Business as Usual (BAU) levels by 2030 in three key sectors of power, transport and industry sectors, excluding “Land use, land-use change and forestry” (LULUCF) sector, in its Intended Nationally Determined Contributions (INDC) commitment. Various energy saving and low carbon development initiatives could be undertaken in Bangladesh in this regard. Likewise, BRAC may also play a role in climate change mitigation. The organisation has had previous experience of undertaking a project on agroforestry and block plantation, which is synonymous with carbon emission reduction, and which again is climate change mitigation as we know it. A list of mitigation activities is given below for BRAC to consider for its future interventions.

Priority initiatives

- Promote eco-community farming, alternative agricultural practices, keyhole gardening as climate change mitigation initiatives
- Promote afforestation and reforestation as climate change mitigation initiatives
- Promote integrated water management systems in small scale irrigation to conserve ground water
- Promote clean/improved cook stoves in rural areas to reduce carbon emission
- Promote solar mini-grids and solar home systems (SHSs) in off-grid areas as a clean energy solution
- Promote solar-based drinking water technologies in rural and urban areas
- Promote small scale or household level waste management in rural and urban areas
- Install wastewater recycling plants in all BRAC offices
- Promote the use of energy saving and less CO₂ emitting appliances in all BRAC offices

THEME 3

Response to climate change
through action research



Theme 3: Response to climate change through action research

Thematic goal

Facilitate and advocate in dissemination of existing knowledge and in generating new knowledge on climate change related issues within and outside of BRAC

Research is important to generate knowledge and explore new ideas. Research in the area of climate change, especially action research can play an integral role in addressing the various aspects on the subject matter at hand. In the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009, special emphasis is given to research and action research by considering it as one of its six pillars. BRAC can incorporate the idea of action-based research initiatives in its different programmes towards minimising the impacts of climate change in its different core programme activities and also to be a trustworthy partner of the government to explore new knowledge on climate change adaptation and mitigation.

Priority initiatives

- Explore spheres of integrating climate change issues into major BRAC programmes and assess the vulnerabilities of BRAC's clients
- Contribute in projection of the impacts of climate change on agro-ecological zones of Bangladesh and contribute to investigating the trend analysis and calendars of climate-induced disasters
- Explore research arenas that address impacts of climate change on agriculture, especially with respect to developing alternative crop production models and gender sensitive aspects
- Contribute to research on carbon footprint calculation in agricultural activities
- Contribute in projection of the impacts of climate change on agro-ecological zones of Bangladesh and contribute to investigating the trend analysis and calendars of climate-induced disasters
- Contribute to research on the status of water table through hydro-geological survey (Coastal and BARIND)
- Contribute to research towards reducing soil salinity and degradation
- Initiate research and action research to investigate climate-induced migration, with special focus on gender and vulnerability dimensions and urban settlement
- Undertake an action research initiative to analyse various issues of sensitivity with respect to livelihoods among indigenous communities
- Contribute to research on the possibilities of adoption and utilisation of bio-fuels
- Research on the possibilities of climate insurance i.e. the feasibility in compensating climate change related losses for health, agriculture and infrastructure
- Contribute to research in identification of possible disease epidemics due to increase in temperature
- Investigate on reducing the impact

of salinity on health, in particular on pregnant women

- Investigate methods for recharging urban ground water
- Contribute to research on the effects of climate change on urban life
- Develop irrigation scheduling software based on area and crop



THEME 4

Capacity building



Theme 4: Capacity building

Thematic goal

Thematic goal: Enhance institutional capacity on climate change for BRAC staff and clients.

Sensitisation on climate change issues is needed more and more in Bangladesh, with the country prone to facing existing as well as new and emerging impacts. Capacity building could minimise the risks and vulnerabilities of climate change not only at the community level but also at the organisational level. As BRAC has immense experience of working at the international, national, local and community levels, a huge opportunity and responsibility lies with BRAC to work towards building the capacity of its staff and clients.

Priority initiatives

- Build awareness on existing and new and emerging climatic hazards and climate- induced disaster risks
- Conduct capacity building training on disaster preparedness and climate change adaptation at regular intervals and organise refresher trainings periodically towards strengthening community based disaster risk management and climate change adaptation
- Train BRAC clients on alternative sustainable livelihood options to combat climate change impacts
- Prepare a community health education package to raise awareness among communities about the increasing health hazards and new and emerging diseases
- Orient BRAC's community health workers, volunteers and BRAC clients about the increasing health hazards and new and emerging diseases
- Expand the working domain on health monitoring and information systems in collaboration with government and non-government organisations
- Organise knowledge fairs at the national and local levels on climate change within BRAC and outside of BRAC programmes, which would include other organisations working in climate change
- Set up learning centres in rural schools and communities where most recent and up-to-date climate change related journals, papers and documents will be available for staff and clients to learn and increase their understanding about climate change
- Incorporate climate change in BRAC school curriculum
- Organise science fairs in schools that include climate change as a major component
- Skills development on sustainable livelihood for internally displaced people being forced to become climate refugees

THEME 5

Collaboration and
networking



Theme 5: Collaboration and networking

Thematic goal

Establish key partnerships during implementation of programme activities, as well as through learning and knowledge sharing and advocacy at all levels.

While tackling the impacts of climate change through its planned activities, BRAC DMCC seeks to collaborate and build on its existing network with various regional, national and international organisations, including with reputable scientific bodies, the civil society, key experts, government organisations (GOs) and NGOs. Strategic partners like International Centre for Climate Change and Development (ICCCAD) and BRAC University Centre for Climate Change and Environmental Research (C3ER) will be consulted to establish key partnerships with various national and international organisations and climate-resilient initiatives. Utilising BRAC's biggest strength which is its massive coverage in terms of networking, locally and internationally, extensive collaboration at the following levels should take place in the next five years:

Programme level

Various programmes at BRAC are already working with issues that directly or indirectly address or combat the impacts of climate change. It is important that all programmes coordinate their activities to create a synergy among themselves to effectively identify problems and find the best solutions.

Organisational level

BRAC being the largest NGO with the most diverse experience must play a role in disseminating its findings with local (both

community and national level organisations) and international NGOs, universities, research institutes, think tanks and development partners. A data bank or public information site should be developed so that BRAC's activity findings and knowledge on climate change may be shared among BRAC programmes as well as with other interested stakeholders, organisations and countries. BRAC in collaboration with BRAC University will work towards encouraging and guiding other institutions to incorporate climate change and disaster management related subjects, in the context of Bangladesh, into their curriculums. This would help to increase BRAC's reputation as a major player in the field of climate change.

National level

It is important that we support the government in its endeavour to combat climate change and its role in the international arena. In collaboration with other relevant non-government national organisations, BRAC would be able to involve itself by playing an advocacy role at the policy level.

International level

BRAC's representation and participation in global climate change platforms is essential in order to remain active in the global discussion on climate change. BRAC will need to send representatives to attend conferences, seminars and discussion groups to share

BRAC's work and also to learn from other organisations. Representatives from BRAC can participate at various international conferences and events that are significant, for example, the Conference of Parties (COP) that is organised by the UNFCCC Secretariat every year to represent not only the organisation but the country as well. Where possible, BRAC should be building networks with other NGOs to co-ordinate activities and campaigns on a global scale. For example, BRAC could collaborate with organisations such as IUCN or the Bangladesh Wildlife Fund or partner in the initiative 'Mangroves for the Future'. These would raise the profile of BRAC's climate change initiatives as well as enable staff to learn from best practices around the world.

Additionally, these partnerships with other organisations would allow BRAC to explore more channels for fundraising.



A photograph of a hydroponic facility. The scene shows multiple rows of green, leafy plants growing in long, silver metal trays. The trays are arranged in a grid-like pattern under a dark metal structure. In the background, there are colorful, abstract patterns on a wall, including red and blue shapes. The lighting is bright, highlighting the vibrant green of the plants.

**WHAT NEEDS
TO BE DONE TO
TRANSFORM
BRAC INTO A
CLIMATE-SMART
ORGANISATION**

Organisational change

Roles and responsibilities among the research (C3ER), research and evaluation division (RED) and implementation (DMCC) wing of BRAC and BRAC University need to be identified so that they can work under the same umbrella to execute activities mentioned under the five thematic areas mentioned in this document.

The DMCC programme will consist of a climate change unit which will provide expert solutions in case of any programme/project of BRAC, or to other organisations that BRAC collaborates with. In this way, the whole organisation can ensure climate resilience across its activities and its coverage. If DMCC requires any research support, C3ER will provide that. In case of evaluation of programmes, RED may take the lead.

Capacity building

BRAC will need to build a strong team of staff who has a thorough understanding of climate change issues. These staff members will be able to continue to research on climate change and the effects of BRAC's climate change initiatives. They will also be equipped to represent BRAC at climate forums and conferences.

Capacity building for BRAC staff and relevant audience at national level

Staff at all levels will need a basic understanding on climate change and how it may affect their programmes and communities. In this regard, C3ER of BRAC University will develop a knowledge management portal where BRAC staff will

get the latest information on the impacts of climate change at the regional, local and international levels. In this respect, BRAC can provide the following responsibilities to C3ER to play a role on capacity building:

- C3ER can sensitise BRAC staff on climate change by offering relevant short courses
- C3ER, DMCC and BRAC Learning Division (BLD) can provide training for BRAC's field staff, conduct drills and develop training manuals as and when necessary
- C3ER can also offer a masters programme (MSc) for development practitioners from GOs, NGOs, International NGOs or INGOs and development partner organisations in collaboration with DMCC, BRAC

Capacity building at community level

BRAC may contribute to building awareness on the possible effects of climate change and how that may affect livelihoods, health, assets etc. BRAC may begin by first hearing out what people have to say- how they see and feel about the actual impacts taking place around them. Climate change is a complex issue and requires an integrated approach addressing cross-cutting issues. This information needs to be communicated clearly so that it is understandable and practiced by all BRAC clients. Increasingly, there will be a need to focus on the effects of climate change in urban areas, and targeting young people will ensure that the capacity building initiatives and raising awareness continues in the future. DMCC, C3ER and RED will work together to develop capacity at the community level in both rural and urban areas.

Programme development

Taking into account the impacts of climate change across BRAC's interventions, modifications will be required in programme methodologies. Some recommendations have been proposed from C3ER under the Climate Smart BRAC project. DMCC and C3ER can work together in helping to modify and/or enhance planning and implementation approaches of the existing BRAC programmes so that they may incorporate the subject of climate resilience through climate change adaptation as an objective. Other BRAC programmes and DMCC and C3ER can also jointly work to identify mitigation and low carbon resilience development mechanisms and incorporate it into their mainstream programmes.

Collaboration, partnership and networking

Emphasis on collaboration, partnership and network building is essential for BRAC to develop its climate change related interventions. Effective communication among different programmes of BRAC is essential to stay updated on who is doing what in addressing climate change impacts, as well as to seek opportunities of integration among programmes in addressing various climate change issues. Similarly, partnership and network building with other organisations, including GOs, INGOs, NGOs, think tanks and development partners, should be given importance towards collaborated efforts in building on existing scopes of work and also in developing new ideas in approaching the climate change issues at hand. As the top ranked development organisation, BRAC can take the lead to form a climate change networking hub and meet with partners

once in every three months to disseminate information about various climate change actions being undertaken. BRAC can also collaborate with BRAC University along with BRAC programmes and other organisations.

Resources mobilisation

Since the impacts of climate change are not homogeneous, more sector specific climate change experts (at senior and mid-level) may be recruited in BRAC programmes as needed. These experts will not necessarily be posted to the climate change unit but may also work in collaboration with DMCC. Additionally, those who are working in the climate change sector at BRAC and BRAC University will also contribute in the climate change unit.



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