



## Our Lives

## Our Strategies

BRAC on climate change

### Disaster Management and Climate Change

# BRAC on climate change



#### BRAC's vision on climate change:

Establish a progressive development process where BRAC and all its programmes synergistically work towards overcoming the dynamics of climate change through a holistic approach that best serves the community, partner development organisations and all other stakeholders.



#### BRAC's mission on climate change:

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

Bangladesh is one of the most vulnerable countries facing the risks of climate change. Although not responsible for high level emissions of the greenhouse gases (GHG), Bangladesh faces the worst consequences due to its geographical location and topography. River basins form a unique delta which is exposed to high volumes of monsoon precipitation. Incidence of flooding, although natural, is increasing in frequency and intensity. In the low-lying coastal zones, the rise in sea level is a major concern. Stronger cyclones and tidal surges will increase in number, aggravating the saline intrusion of the coastal districts. Longer dry season, droughts, expected to increase in number and over a bigger area in the northern region. The rhythm in the six seasons of Bangladesh will slowly be lost as the summers become hotter and more humid and the winters colder.

BRAC is a development organisation dedicated to alleviate poverty by empowering the poor, and helping them in bringing about positive changes in their lives by creating opportunities. BRAC catalyses lasting change, nurturing an ecosystem in which the poor have the chance to seize control of their own lives. BRAC addresses the challenge of climate change through different programmes to achieve climate change resilience. Amongst these programmes, BRAC's disaster management and climate change (DMCC; previously DECC) programme builds institutional and community capacity for

responding to natural and manmade disasters. The programme addresses community level disaster risk reduction aiming to increase adaptability, building resilience against frequently occurring natural disasters, conducting research and education relevant to the environment, climate change and disaster management.

Through decades of experience in various sectors, BRAC knows that climate change affects all aspects of the society and slows down development efforts. These climate induced concerns include vulnerable gender groups, threats on agriculture practices, land inundation, salinity, water scarcity, sanitation, disaster management and newly emerging diseases. Through the operation of various programmes, BRAC combines all efforts and creates a holistic climate change strategy for the next five years. Development organisations and experts can take these cross-cutting initiatives of climate change and apply them in their own context to synergistically meet future climate change challenges along with BRAC.

BRAC is persistent on its endeavours to establish the community based adaptations and challenging ourselves to find integrated resilience building solutions. This is our journey on climate change.

#### The disaster resilient houses

In May 2009, Cyclone Aila washed away homes, lives and livelihoods in the coastal region of Bangladesh. The district of Satkhira, Shyamnagar was adversely affected and the people living in remote areas did not have enough time or facilities to resort to the cyclone shelters. After this devastating cyclone, BRAC's disaster management and climate change (DMCC) programme partnered with UNDP to rebuild the entire village of Paddapukur with 43 disaster resilient houses and a primary school, all of which act as individual cyclone shelters. The community members participated in the construction of these houses with specific architecture to provide protection against strong winds and water surges. Safe drinking sources and sanitary latrines were also installed and are maintained by the community.

#### Pond sand filter

The water surges of Cyclone Aila caused salinity intrusion in the land, and it still remains a problem today in 2015. Freshwater sources became scarce and remote villages started to suffer from various waterborne diseases. In Dacope of the southern district of Khulna, BRAC's water, sanitation and hygiene (WASH) programme set up a pond sand filter at the only remaining freshwater pond in the village of Gunari. The filter is composed of four layers of materials such as sand and rocks, which make the water potable. This filter was partially funded by the community and is maintained regularly by its members. The villagers hold pride in their community based solution to combat water scarcity and the waterborne diseases which followed. Currently, the pond sand filter in Gunari serves a population of 1,000 villagers with safe drinking water.

#### Solar water pump

In Paikgacha of Khulna, water scarcity is less of a concern for three villages through which a pipe network of 42,000 feet distributes water from a solar run motor. BRAC's water, sanitation and hygiene (WASH) programme brought the communities of three villages together to overcome the electricity scarcity and limited sources of water available in the locality. The community contributed to BRAC's initiative to construct the motor and pump which runs on a 1,200 Watt solar panel. 81 tapping points are being shared between 321 households and the piping system has the capacity to support up to 500 households. Monthly contributions from each of these households help to maintain the pump system. The engineering behind the solar pump and involvement of the community in maintaining the system is a true model of sustainable and renewable energy solution.

#### Strength of women groups

A network of 19,100 women all across Bangladesh was formed to reduce the vulnerability of women against climate change. With partnership of UN Women, the disaster management and climate change (DMCC) programme involved women living in the cyclone, flood and drought prone areas of the country in forming groups in their communities. The women of these groups received leadership training with the aim to overcome community challenges as a group. Skill development training and seed capital grants were also provided to assist livelihoods and capacity building among these women. Members get together for monthly meetings and discuss community efforts against climate change. The strength of this internal network at community level is stronger than any other external support system can provide. BRAC sees this nationwide network holding endless potential in combating the impacts of climate change through the power of these dedicated women.

#### Coping with stress together

Psychosocial counselling trainings were introduced into a network of women across the country in locations which are prone to cyclone, flood and drought. More than 19,000 women learned to address mental distress that are seen in the population which continuously face loss during disasters. They know the basics of how to counsel themselves and each other in these groups. The psychosocial counselling was introduced by the disaster management and climate change (DMCC) programme in partnership with UN Women. The effort to support each other's psychosocial wellbeing has opened gates for these women to share their feelings and create a strong bond within the community.

#### Climate resilient crops

BRAC's agriculture and food security programme (AFSP) projects the expected adverse impact of climate change on the agricultural sector of Bangladesh. To address the challenges, the programme introduces various kinds of climate resilient crops. These include rice crops which are short duration varieties, high yield varieties, inundation resistant and saline tolerant for the southern region. Other crops such as summer tomatoes, maize and sunflowers, which were previously not popular in Bangladesh are promoted to the farmers to help them cope with the changing crop seasons, water scarcity and uncertain climate scenarios across the country. According to the region and the impact of climate change, the farmers are trained to find suitable crops and cropping patterns. The farmers are also being oriented with natural systems of pest control such as bird stands, light traps and other eco-friendly methods.

#### The dyke pond system

Fish farming is a well adopted form of livelihood in the southern region of Bangladesh. Shrimp culture in particular can be profitable. However, some of these brackish water practices are often environmentally degrading and causes further intrusion of saline water into the land. Poor farmers have very little land to consider other alternatives and sustainable livelihoods. BRAC's agriculture and food security programme (AFSP), therefore, introduced the pond dyke system among the farmers. This allows the farmers to grow seasonal vegetables along the dyke of the fish pond enclosures all throughout the year. With the minimum space available to the farmers, this vegetable farming system was proved to be very profitable. Eco-friendly systems such as that of sex pheromone traps are encouraged to biologically control the pests on the vegetable farms.

AFSP counsels these farmers at community level and trains them to find a suitable and sustainable crop and fish to grow each season in this pond dyke system. One farmer learns from another and the community based approach to combat climate change in the agricultural sector functions. The farmers' communities holistically adjust their livelihoods to meet their economic needs and at the same time ensure environmental protection.

