

# Char Development and Settlement Project Phase IV

## Protection from Climate Change on Coastal Chars



### Climate change in CDSP IV chars

Due to harsh natural conditions – such as flooding, cyclones and lack of fresh water – and an unfavourable socio-economic situation (lack of a secure land title, poor communication infrastructure, lack of institutions and governance), char dwellers are very vulnerable to climate variability and natural disasters. Their capacity to deal with climate change is limited.

Although people have always adapted to the climate, the current speed of change coupled with extreme vulnerability and exposure makes increasing the adaptive capacity of the char population paramount, especially for the medium and long term. The already existing uncertainties and hazards in the CDSP IV chars will be exacerbated by the impacts of climate change, with a greater intensity of cyclones and higher storm surges, changing rainfall patterns, higher temperatures and sea level rise.

### Adapting to climate change and CDSP IV

The overall objective of CDSP IV is to improve the economic situation and living condition of the population in the coastal areas of south-eastern Bangladesh with special reference to the poorest segment of the population. In doing this we reduce current vulnerability to climatic conditions and increase the capacity of the char communities to adapt to climate change impacts. We do so by taking an approach where the current problems are addressed while keeping in mind the possibilities for the climate of the future.

### Engineering interventions

CDSP IV is helping char dwellers to adapt to climate change by ensuring effective management of water resources, protection against tidal and storm surges, and improving drainage capacity. This is done through water management interventions (construction of embankments, drainage sluices, and drainage channels) and by construction of climate resilient internal infrastructure such as cyclone shelters, roads, bridges, and deep tube wells for water supply. This will improve communication, giving people access to outside markets, protection from extreme weather events and a sustainable solution to the lack of potable water supply.

### Community based interventions

As poverty and vulnerability to climate change feed each other, addressing social welfare, quality of life, and livelihoods facilitates adaptation to climate change. CDSP IV is taking a community based approach, which includes:

- **Social forestry activities:** such as the establishment of shelter belts to protect chars from storms and cyclones. Mangrove plantation helps in the development of newly accreted char. Foreshore, block, embankment and other strip plantation support for the protection of inhabitants and internal infrastructures from the cyclone surge and storm as well as in the development of environment friendly eco-system.

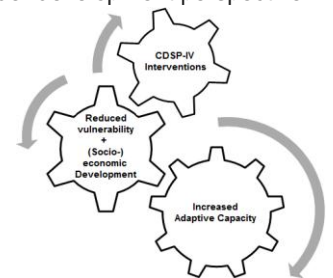
- **Land settlement and titling:** providing 20,000 households with a secure land title, investment in climate resilient agriculture and infrastructure is promoted.
- **Agricultural interventions:** Appropriate intervention adapted for mitigation in agricultural development in vulnerable coastal chars. Climate change resilient innovated technologies such as salinity, flood, submerge and draught resistant variety have been introduced those are also short duration variety, variable planting time, mulching, rain water harvesting technology to combat salinity in *Rabi* session etc. With the introduction of these technologies the farmers are aware on climate change adaptation and mitigation.
- **Livelihood support through NGO's:** awareness raising and piloting of disaster preparedness and climate change.
- **Formation of community based groups:** these are closely involved in planning and implementation of project interventions and in operation and maintenance after the project is completed, ensuring project sustainability.

Experience from CDSP I, II and III shows that thanks to the reduced vulnerability by the infrastructure provided, combined with the security of land tenure, higher incomes, and other socio-economic improvements, people have invested in better housing, more resilient agriculture and effective local institutions capable of dealing with changing conditions.

### A unique approach

As it is impossible to anticipate exact future impacts of climate change, particularly at local scale, climate change adaptation should have an intermediate goal of empowering communities to adapt to the impacts in a broader development perspective.

By reducing the vulnerability and exposure to current climate conditions through engineering and community based interventions, CDSP IV is improving the population's capacity to cope with current climate conditions together with socio-economic development. This leads to increased capacity to adapt to longer term climate change impacts.



### Latest information and contact details

If interested in the latest CDSP IV news and progress updates, please visit our website on [www.cdsp.org.bd](http://www.cdsp.org.bd).

For questions or comments please contact us directly through:

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