

## MESSAGE TO OUR READERS



Dear Readers:

After six exciting and productive years, the Climate-Resilient Ecosystems and Livelihoods (CREL) project is closing, and this will be our final Newsletter. First and foremost, we would like to thank all of you who have supported CREL through your interest in our activities and achievements. It has been a privilege to work with the hundreds of thousands of Bangladeshis who gave their time to CREL and in return saw improvements in their livelihoods and management of their forest and wetland ecosystems and natural resources.

CREL's legacy extends beyond the thousands of people who have benefited from our activities. Our staff is comprised of hundreds of highly motivated and dedicated professionals who developed their skills and experience under CREL and will now continue to serve their country in other capacities. The CREL project was designed and implemented by Bangladeshis, and it is their success that we recognize and celebrate.

So, with a sense of both satisfaction and sadness as we depart, but also optimism for benefits that will continue from our activities and impacts. We thank everyone who has contributed to CREL and the country and people of Bangladesh.

**John A. Dorr, Ph.D.**

*Chief of Party*

USAID's Climate Resilient Ecosystems and Livelihoods (CREL) Project

Winrock International

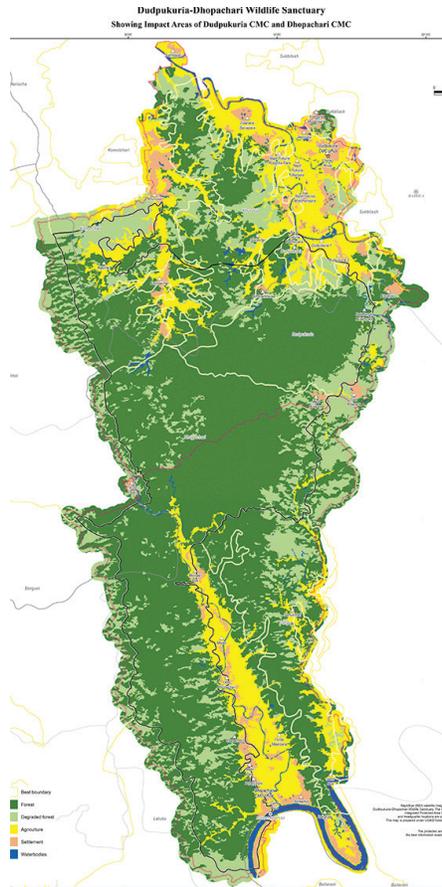
Dhaka, Bangladesh



## Bangladesh Centre for Advanced Studies (BCAS): Experiences and Learning from CREL

Bangladesh Centre for Advanced Studies (BCAS), a technical partner on the CREL project, has contributed to all components of CREL in various capacities. Drawing upon the expertise in climate change, natural resources management (NRM), geospatial information system (GIS) and capacity building, BCAS contributed to: i) building the capacity of Community Management Organizations (CMOs), Resource Management Organizations (RMOs) and other CREL's partners in using climate change information in planning and decision making, ii) supporting policy reform in co-management, climate resilient NRM and Protected Area rules and, iii) improving NRM, local adaptation planning and community actions through participatory research, NRM assessments and spatial data.

BCAS' capacity building efforts focused on providing technical support in developing knowledge products including training modules, Participatory Climate Vulnerability Assessment (PCVA) guideline and PA specific GIS maps that provided PAs with spatial information. These products were



developed through field tests and validation with relevant stakeholders. The BCAS technical teams also

facilitated Training of Trainers (ToT) and conducted site level trainings on climate resilient NRM, biodiversity and climate resilient livelihoods. BCAS systematically entered data on these trainings, workshops and seminars, so that their impacts could be tangible measured and evaluated.

BCAS landscape planning and adaptation activities were led by the team's Climate Change Adaptation Specialist, Vulnerability Assessment experts with support from the training and GIS experts. BCAS supported the implementing partners in PCVA and preparation of local adaptation plans at forest beat, Union Parishad and forest PA levels as well as wetlands covering over 950 villages. Vulnerability Assessment and adaptation plans were all made spatially explicit through GIS. The Forest Department is now using the PCVA results and local adaptation plans in developing long-term PA management plans. Adaptation plans are also being used in the Annual Development Programs (ADPs) of many Union Parishads.

Furthermore, Co-management Organizations in 10 PAs have prepared a proposal for the Bangladesh Climate Change Trust Fund (BCCTF) based on the local adaptation and mitigation plans which have been submitted through the Forest Department. BCAS work in partnership with Winrock International, communities, government agencies and other stakeholders, has tangibly contributed to reducing climate risks and vulnerability as well as increase resilience in ecosystem health and the livelihoods of the poor.

Through CREL, the BCAS team significantly built its expertise in improving our research methods and techniques, making them more effective and results oriented, so that we are now better placed to support with communities, partners and government departments.



Department of Environment



## The Center for Natural Resource Studies (CNRS): Building Resilience

The CNRS-CREL team undertook many challenging activities at our project sites. Here are three successful examples:

Gabura, an island, adjacent to Sundarbans, was severely affected by the cyclone Aila in 2009. The entire union was stripped of all vegetation. CREL with support of the community, planted twenty-five thousand mangrove saplings of different species covering an area of ten hectares. This afforestation of mangrove now has resulted in a four-fold increase in the population of trees due to enhanced natural regeneration. There are now over one hundred thousand trees creating a green belt around Gabura. Drifting seeds that wash in with the tide get trapped in the roots of these trees enhancing natural regeneration. CREL further supported the community effort by providing protective fencing. The dense tree wall has made the area impenetrable to both human and domestic animals, protecting it from human encroachment and animal grazing. CREL team documentation found that the newly afforested area has become a safe habitat and a breeding ground for various aquatic species including crab, shrimp, eel, giant gourami (kholsha) and other species. At the same time, this mangrove is working to protect the area from the natural erosion of the Kopotakkho River that flows past the island. This green wall also acts as natural protection against tropical storms and cyclones providing increased resilience and protection to the population living on the island. The afforestation and reforestation work of USAID's CREL project in Dakshin para, Koyra, has produced visible impacts. After just 19 months, cranes, spotted doves and weaver birds have started nesting and breeding there. Beehives have also been spotted and Village Conservation Forum (VCF) members have extracted honey

from these beehives. CREL has also planted around 200,000 seedlings of Sundori, Keora, Bain, Gewa, Kankra, Golpata, Pashur, Dhundal and Khalisha covering 478 hectares in other parts of southwest region.

Tengragiri Wildlife Sanctuary and adjacent areas are important spawning and nursery areas for many species of commercially valuable fish (hilsha) and invertebrates (shrimp). Designation and development of fish sanctuaries are effective mechanisms to protect these populations from over fishing and to ensure conservation. Tengragiri, Feuchaar Khal and Charer Khal, which are connected to the Andhermanik River that flows to the Bay of Bengal, is a good location for conservation of fish and other aquatic species. At the mouth of the canal, 40 logs, 6 feet apart in two rows have been placed to prevent boats from entering the areas, thereby helping to ensure an undisturbed environment for these aquatic animals. The total area of the two sanctuary is about 30.1 hectares. CREL supported Tengragiri CMC through grants to establish these sanctuaries, which is monitored and tended to by Nishanbaria VCF members.

Fresh water is scarce in Khulna Division. A large number of people suffer as salinity intrusion is very common even in groundwater. Specially the poor household, living adjacent to the Sundarban Reserve Forest, suffer most. 550 families living in Purba Kalinager, Munshiganj is one of such community. Kellar Pukur pond, next to the Maloncha River, has been the key source of water for all kind of household needs as well as home gardening since 2009. Sedimentation from floods, excessive rainfall, and storm surges have reduced the depth of the pond to a level where it became unusable causing sufferings to the community, particularly women. USAID's CREL Project took the initiative to re-excavate Kellar Pukur and construct a pond sand filter to support the community with their water need. Mr. Md. Yunus Ali, Chief Conservator of Forests of Bangladesh and Mr. Paul Sabatine, Deputy Mission Director of USAID formally handed over the responsibility of managing the excavated fresh water pond and associated pond sand filter to the community of Purba Kalinagar, Munshiganj, Satkhira on September 5, 2016.



USAID's Climate-Resilient Ecosystems and Livelihoods (CREL) Project



Department of Environment



## Community Development Center (CODEC): Paving the Path to CMC Sustainability



Community Development Centre (CODEC)'s efforts under CREL focused in the Chittagong Region. The team expanded and established 9 Co-Management Committees (CMCs) in the region, worked in 56,021 hectares of landscape with 40,598 hectares of biological significant area, engaged with 11,566 households under 248 Village Conservation Forums.

All CMCs are successfully working with government agencies, communities and on local stakeholder conservation issues to better manage natural resources and generate revenue from the Protected Areas. With CREL's guidance the CMO developed their

Annual Development Plans, Forest Fire Management Plan and Long-Term Plans for Sustainability.

CMCs in Chittagong region are managing 28 Community Patrol Groups with 560 members. These patrol group members are working with the Forest Department to reduce illegal activities in forests. During the project period, 34 Participatory Climate Vulnerability Assessment reports were prepared. Using this information 192 Village Level Adaptation Plans were developed. The CREL team planted 152,000 seedlings at homesteads, institutions, embankments and roadsides. A forest carbon inventory was completed for

5 Protected Areas during the project period.

The CREL Chittagong team disseminated climate smart farming technology through 11 demo farms. 6,550 forest resource dependent residents now have an alternative income source. Vermi compost, an organic fertilizer, has become popular with the community and 171 VCF members earned good money by selling 12,000 Kilograms of vermi compost every month. Ecotourism has become another revenue source for the CMCs. CMCs now provide tents, boats, and others supports to the visitors paving CMCs way to sustainability.



## Nature Conservation Management (NACOM): Sea Turtle Conservation



CREL has been working with the local communities from the beginning to help conserve critical ecosystems and marine biodiversity in the Southeastern coast of Bangladesh. As part of conservation of species CREL took the initiative to conserve sea turtles. Sea turtles nest on the beaches along the coast and on offshore islands. Beaches of Cox's Bazar-Teknaf Peninsula, Saint Martin's Islands and Sonadia Islands are the important nesting sites for sea turtle. Five species of sea turtle have been observed in Bangladesh's coastal waters: Olive Ridley (*Lepidochelys olivacea*), Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*), Loggerhead (*Caretta caretta*) and Leatherback (*Dermochelys coriacea*), among these, the Olive Ridley is more common. All of these turtle species are globally threatened according to IUCN Bangladesh 2015, and they are protected under Wildlife (Protection and Security) Act 2012 of Bangladesh. Village Conservation Groups have taken up the conservation of sea

turtles with CREL assistance, The VCGs have taken responsibility for control of feral dogs and hunters, to help the safe return of mother turtles to the sea, and ex-situ conservation through relocating nests to protected "hatcheries" (small areas of fenced-off beach that are closely guarded), and from which the hatchlings are released into the sea. The CREL project supported operation of five turtle beach protection and hatchery activities in several areas: in Kaderpara, Shilkhali and Bodormokum under Teknaf and Pecherdwip, Teknaf (all in the Teknaf-Cox's Bazar Peninsula ECA); Marine Park, Golachipa in St. Martin's Island ECA; and, East para and West para in Sonadia Island ECA.

Each protected nesting beach and associated hatchery has two local guards who ensure collection of eggs from the beach-nests and relocation into the hatchery, and 24-hour guarding and protection of the incubating eggs. During the period of November 2014 to April 2018, a total of 37,720 turtle

eggs were collected and incubated in hatcheries. The guard teams ensured the safe transit of the hatchlings from the hatchery to the sea. As of June 2018, 30,784 hatchlings were protected and safely released into the sea. Under the management of NACOM, the CREL project team in the Southeast region also organized awareness-building activities among the Village Conservation Groups, fishing communities and boatman associations that including installation of signboards in different location along the road and nesting beaches that promote turtle conservation. To ensure that sustainability of this important conservation initiative, the CREL team also helped the Co-Management Committees of Teknaf, Shilkhali and Himchari NP CMC incorporate this activity into their long-term plans. The result is that local people now realize the value of protecting the turtles, as well as other valuable but vulnerable coastal and marine environments.



## Jatio Uddan Sadar CMC Elected First Woman President



'Protected Area Management Rules 2017' codified the co-management process as a legally mandated management tool for conservation of the protected forests of Bangladesh. The Jatio Uddan Sadar Co-Management General Committee and Executive Committee under Madhupur National Park were formed according to this rule. Mr. Ramendra Nath Bishwas, Upazial Nirbahi Officer, Madhupur Upazila, chaired the program and Upazila Parishad Chairman was the chief guest. During the program, 36 (male - 30, female - 6) members of the Co-Management General Committee and Co-Management Executive Committee (male - 17, female - 4) were inducted into their positions on the committees, Ms. Jhastina Nokrek from Getchuwa Village Conservation Forum – the first woman from an ethnic community - was elected as the President of the Co-Management Executive Committee. Ms. Nilufar Yasmin from Harintola VCF, Md. Helal Uddin from Jalchatra VCF and Nasir Uddifrom Gachabari VCF were elected as Vice-president (Female), Vice-President (Male) and Treasurer, respectively.

## Sustainable Co-Management Organization

Northeast Bangladesh is one of the CREL Project's important sites with forests and wetlands rich in biodiversity. Among many achievements, CREL team is particularly proud of two break-through accomplishments.

The first was the establishment of co-management organizations in Ratargul Special Biodiversity Conservation Area. Ratargul Reserve Forest, a unique fresh water swamp forest of Sylhet, was declared a "Special Biodiversity Protected Area" by the Ministry of Environment, Forests and Climate Change on May 31, 2015. This declaration provided the opportunity to include co-management strategies for a more equitable governance of biodiversity, improved planning of natural resources and diversified livelihoods of natural resource dependent communities in this area. The CREL project, with Forest Department support, formed ten Village Conservation Forum (VCF) at and one Peoples' Forum with representatives from these VCFs. The Co-Management Committee and Council for Ratargul SBCA

was formed at Goyenghat Upazila Hall Room on December 20, 2016 marking the beginning of a new era in Ratargul.

A second major success was the Forest Department's introduction of entry fee collection in Khadimnagar National Park on January 8, 2017. The park encompasses 679 hectares and is one of the most important protected area in Bangladesh because of its interesting and diversified biodiversity composition. A mixed semi-evergreen and evergreen forest harboring 217 species of plants, 20 species of amphibians, 9 species of reptiles, 28 species of birds and 26 species of mammals. The CREL construction program provided structures including an entry fee counter, sitting bench, round shed, culverts, car parking facilities, picnic shades, toilet facilities, tree-based adventure activities, and camping facilities equipped tents and bicycles. These facilities are being managed by Khadimnagar CMC. for visitor interested to enjoy the tourism facilities in Khadimnagar Park.

## Poster Set for Conservation of Species

The CREL project has been working to conserve the biodiversity of Protected Areas of Bangladesh for last 6 years. CREL took many initiatives to promote awareness among the community living next to the protected areas for the need to conserve endangered species living in the forests next to them. CREL collaborated with other organizations addressing the same concern and circulated information about important species of Bangladesh. CREL updated, reprinted and distributed 10,000 posters for 11 species and through CMC, VCF network distributed among the villagers. These posters convey messages on harmful practices and how to prevent them, as well as the

importance of the species to our ecosystems. IUCN, WCS, CARINAM, and NACOM extended their support to CREL to produce these posters. The posters provide information on species that include the White Rumped Vulture, Asian Elephant, Dolphin, Pangolin, Shore Birds and Indian Skimmers. The Forest Department supported CREL in developing these posters. CREL also organized Focus Group Discussions to assess the effectiveness of these posters. What we learned will help future projects develop more effective messaging and communications tools for conserving biodiversity and ecosystems in the forests.

