

REPORT

EUROPEAN UNION GREEN AWARD-2023

WINNER



COMMUNITY DEVELOPMENT & ADVOCACY FORUM NAPAL- CDAFN

MADHESH PROVINCE

MAHOTTARI, BARDIBAS



Abstract Submission on the call- Green Actions

Reducing the Environmental Impacts by Adapting to Climate Change Through Green Actions and Nature Based Solutions (NBS) along the Ratu River Basin of Mahtani and Dhanusha Districts of Nepal

Community Development & Advocacy Forum Nepal's (CDAFN's) 15 years of local innovations and results

Summary: Climate Change (CC) has huge effects on water resources, land, food security, and biodiversity. Adapting CC requires precise measures to reduce negative effects. Many studies revealed that impact of CC is high on fragile watershed and vulnerable society that have low ability to cope uncertainty. This nomination and actions present impact and learning of Community Based Integrated Watershed Management (CBIWM) approach intervened to adapt CC through green action and Nature Based Solutions (NBS) in vulnerable watershed of Nepal. The Ratu River System (RRS) comprises 103 tributaries originates from fragile Siwalik hills of mid zone of Nepal. (CDAFN) is a recognized NGO established with mission to mobilize vulnerable communities for sustainable natural resource management. CDAFN is implementing CBIWM in RRS with collaboration and financial support of government, local community and donor. CDAFN led interventions have brought positive changes in enhancing livelihoods of communities and adapting CC through NBS and restoring degraded watershed. As a result, agriculture lands protected, access and availability of water ensured for drinking and irrigation, degraded land restored through green actions, livelihood of vulnerable community significantly improved; and span of Ratu river reduces from 1500 m to 250 m. Due to the outstanding local innovation on community based CC adaptation, CDAFN won 1st "UKAID-Adaptation at Scale Prize 2019". Besides, CDAFN received "WWF Nepal- Conservation Awards 2019" as well as The Adaptation Champions Award on "Local Innovation category" from Global Center on Adaptation (GCA) during the COP27 in Egypt 2022 due to its remarkable role in conservation effort. Many valuable lessons learned from the interventions. Community participation in project cycle helps to increase ownership, efficiency and effectiveness. Bioengineering is found to be a sustainable and cost effective means to restore degraded watershed. Program focus must be on upstream of river system to address land degradation, landslide, flood and siltation which enable to strengthen community through environmental resilience and green economy development.

Thus, CDAFN since its inception has been applying local initiatives for the integrated watershed management to ensure sustainable water supply in the community by river & torrents protection, disaster risk reduction and biodiversity conservation. It is helping communities to establish

immediate and long-term sources of income through a green campaign by planting agriculture crops and fruits.

The impacts of CDAFN's integrated efforts on NBS through green actions are as follows:

1. With the management of rainwater harvesting ponds (167 water ponds of different size and capacity.) at Siwalik/Chure areas, there has been controlled of surface runoff and flooding along with controlling landslide, land cutting and reduced sedimentation in downstream areas. Chronic drought problem has been solved due to the availability of huge water quantity in such ponds (2000-million-liter water holding regularly). Crop failure and risk of forest fire has been reduced. Vegetable farming both seasonal and off season has been possible and local people started cultivating the suitable varieties of vegetables. Consumption of fresh vegetables have been increased and the surplus production becomes the means of income in the community.
2. Raising of seepage water from the non-perineal water bodies (22 irrigation schemes) have become the source of irrigation throughout the year. Three crops' (rice-wheat-maize) production cycle has been established from that of one crop (rice) production in a year. The area of crop cultivation has also been increased contributing to food security. The process and number of migrations have also decreased significantly, while the attraction of communities to agricultural production and business has been increased. Employment in agribusiness and enterprise has increased compared to the past. In addition to this, the old irrigation system used to dam the river using tree branches, leaves and stones have been completely stopped and there has been a significant reduction in deforestation too. The available water has also been used for other HHs purpose like bathing, cleaning and washing dishes and animal feeding.
3. More than 200 thousand liter of waters collected daily in different reservoir tanks through the cutoff wall technology in torrents and gullies of upstream Chure areas. This has benefitted almost 1500 HHs in Chure areas of Mahottari and Dhanusha district. This has solved the problem of drinking water and also the clean drinking water is available during floods as the seepage water coming from under the ground is collected. The community has been consuming clean and safe water throughout the year. With the elimination of water hassle for women, there has been an increase in the participation of women in other social and community programs. The saved time has been utilized for other sources of income and for the care and education of children too.

4. With the application of bioengineering with low cost technology into 67 torrents (tributaries) out of 103 of Ratu River system of Mahottari and Dhanusha of Nepal, 54 torrents are completely established. Around 1500 hectare of agriculture land is protected and at the same time, about 4,000 households in the Chure area have been safe from the risk of landslide and disaster. These conservation methods, which are made from a mixture of engineering and vegetation/plants, have strengthen the longevity of the structure in one hand and helped in the cattle rearing business due to the availability of fodder/ grasses in another.
5. Multi-layer farming approach is one of the successful adaptation measures in the colossal patches of barren and abandoned river banks in terai plane. Such unused barren land along the river banks is being reclaimed and became the source of income and nutritious food. Massive fruits plantation (mango, litchi, lemon, jackfruit) have been doing along with short cycle vegetables crops cultivation in around 1500 hectares of such lands. Such production and conservation groups includes landless, small holder and other local people. Through this process, access to sources of livelihood and income has been increased by including the vulnerable, poor and squatter communities in the green campaign by linking them with production. The campaign, a joint initiative of local government, community, international aid agencies and CDAFN, is also being felt to be sustainable and effective. We hope that the efforts of all with accountability will help in food security at the local level and also in the development of agro-based economy.

Cost effectiveness: All the above interventions have been tried, experienced and successfully implemented for more than decades, and since they are also local led, they are much less expensive compared to other large structures and the cost involve in them. Therefore, they have been seen to be sustainable and effective. Since these successful practices have been observed and appreciated by various levels of government, stakeholders and donor agencies and replicated by other local governments too, we also believe that the government of each concerned country can study this model of management and follow the technology and learning directly there by reducing the huge cost of further research and practices. Since it is locally practiced and successfully used, there is no need for expert knowledge to be brought from outside. Hence, these models have established ownership of the community by optimum utilization of local resources and based on NBS are completed at a relatively low cost.

Participation, replication and awareness raising: These NBS models are the results of combine efforts of local communities, enthusiastic contribution of local government, technical facilitation of CDAFN and financial support of donors. These efforts help to establish multilateral

stakeholder ownership. In this system the local community through their own organizational process led the responsibility and accountability of the implementation of the plan by forming the user's committee where the NGOs play a role in empowerment, facilitation and technical assistance. We feel that these conservation campaigns are effective and sustainable as these are led by the initiatives and efforts of the locals. Necessary initiatives and commitments have also been made to involve the responsible bodies and stakeholders in conservation for a joint effort with accountability. Community mobilization through cash and kind and coordination with the designated service provider including group registration would become the basis of sustainable management.

These local base solutions can further have amplified in other similar watershed and river system of Chure and Siwalik areas to provide even more benefits to the community and most vulnerable people to cope with the climate induced problems and disasters. Similarly, the huge patches of abandoned riverbeds of downstream areas can be reclaimed for short term and long term income generation through multi-layer farming approach (riverbed farming and horticulture) including the small holders and landless people. Our efforts have been successful and effective to prevent hazards such as floods, droughts, landslides and thereby recurring disasters. And it has also contributed to the reduction of food security issues.

CDAFN's Brief Introduction and Ongoing Projects:

[CDAFN IN MAHOTTARI, DHANUSHA and SIRAHA](#)

NAME OF ORGANIZATION: Community Development & Advocacy Forum Nepal (CDAFN)

BUSINESS ADDRESS: Bardibas Municipality-1, Mahottari District Nepal

REGISTRATION: District Administration Office, Mahottari, Reg No. 663 and Social Welfare Council Affiliation No. 19921

THEMATIC AREA/PROJECTS

b. Green Actions, Resilience and Climate Change Adaptation, DRR, Livelihood, Water and River system management

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- **BRIEF DESCRIPTION OF ONGOING PROJECTS:**

CDAFN is doing 4 Major long term projects respectively with Helvetas Nepal jointly with Municipalities, ADRA Nepal & Rupantaran through EU and Austrian Development Cooperation funding, Caritas Germany and UNDP jointly with Gaushala, Bardibas and Karjanaha Municipality of Madhesh Province.

- I. Project from Helvetas is of riverbed farming. That covers 4 Municipalities of Mahottari. Colossal patches of barren river banks are reclaimed by groups for farming. Vegetables and fruits are cultivated by the local people including small holders Muslims, dalit and marginal and started earning by selling the surplus consumption. This project is continued from 2019 and renewing annually. Respective LGs have contributed fund jointly with Helvetas where CDAFN has a technical/implementation role. Around 30 thousand US\$ is spending in each of the project municipalities annually for inputs and technology.
- II. Similarly, Local Initiatives to Reduce Impacts of Climate Change (LIRIC) is a joint project with ADRA Nepal, Rupantaran and CDAFN. EU and Austrian Development Cooperation have provided financial support in this project since 2020. This project is implemented for 42 months covering 6 Municipalities of Mahottari and Dhanusha. This project aims to reduce the impact of climate change by logical and effective engagement of local government where local CSOs will be capacitated and mobilized through strengthening their network. Climate Change Adaptation and Mitigation strategies/measures are applied in the areas where a favorable enabling environment at LGs towards climate resilient development will be ensured. This project will coordinate respective LGs for resource leveraging with the aim of developing ownership from them. Around 1 million 200 thousand US\$ is provisioned for this project.
- III. Another project is Climate Change Adaptation and Disaster Risk Reduction Project (CDRRP). This 48 months' project is supported by Caritas Germany, one of our long term and strategic funding partners whom we have been working since 2009. Natural Resource Management, Watershed conservation, Chure conservation, DRR and Climate Change Adaptation and Mitigations are the key areas of work. This project extensively works in one river basin i.e.

Jangha river basin of Mahottari. The best practices and innovations that we learn from Ratu River system management are replicated and amplified in this river basin. Low cost bioengineering measures for riverbank protection, rainwater harvest pond for ground water recharging in Chure areas and climate smart adaptation measures in farming system are applied. Around 345 thousand US\$ will be utilized through the project where significant leveraging will be done from LGs as well.

IV. COVID-19 response and Socio economic recovery as well as Leaving No One Behind (LNOB) project with UNDP and Gaushala Municipality is another joint project that CDAFN is implementing from August 2020. This is 32 months' project and implemented at Gaushala, Bardibas and Karjanaha Municipality of Mahottari and Siraha district. Creation of local employment through IG and employment support plan is the key areas of work that the project is focusing. Abroad returnees' worker mainly the youths due to COVID-19 are other special target groups for this project. Riverbank plantation, goat farming support, public pond management for fishery, Green house nursery support, low cost bioengineering support for riverbank protection and irrigation support through deep boring are the key activities of the project. Around 750 thousand US\$ will be utilized including 50% support from the local government.

- **WOMEN AND YOUTH ENGAGEMENT PARTNERSHIP AND NETWORKING:**

Our action engaged with a wide range of grass root CSOs/CBOs including women & youth groups, LGs, Conservation Development Board, provincial government, private sectors and communities to own these NRM and CCA issues, identify risks and apply the coping measures. Through multi-stakeholder collaboration, local CSOs/groups will develop their capacity and resilience by promoting nature base economy through climate smart technologies. Different Projects have been mobilizing the community and undertaking right-based advocacy on behalf of economic vulnerable people due to COVID pandemic as well as through climate induced disasters specially women, Muslims, returnees' worker, marginalised population. Moreover, we have engaged unemployed youths, abroad returnees, women and daily wage earners in our project beneficiaries ensuring at least 50% women in every process and outcomes of the project. Women and youths are trained and developed as Local Resource Persons for farming, Care takers in flood early warning system, champions as motivational speaker. Besides, women livelihood groups are organized and empowered through training and support. Similarly, the short term COVID-19 response, unconditional cash transfer and economic recovery projects are particularly focussed to the vulnerable, minorities, Dalit and poor families where local youth volunteer are

involved in HHs survey, verification and local coordination. So far, we have successfully accomplished 5 different short term projects on COVID-19 support and economic recovery since April 2020 having partnership with Helvetas, Caritas Germany, ADRA and UNDP engaging and mobilizing significant number of youths.

Efforts and Results Photographs which we submitted:



After 2018



Before 2009



Before 2009



After 2018



Before 2009



After 2018

Low cost Bioengineering to control torrents, gullies and landslides in upstream Chure areas.



Degraded land rehabilitation through fruit plantation and riverbed farming in downstream terai areas



Degraded riverbanks converted into fruits orchard and vegetables' patches for immediate and long term income generation.



Field Visits and interaction from Australian embassy, Provincial government and EU Ambassador



Raimandal, Bardibas-03 (Before-2014)



Raimandal, Bardibas-03 (After-2017)

Low cost bioengineering for controlling surface runoff, sedimentation and land slide



Budwakhola, Bardibas-10 (Before-2012)



Budwakhola, Bardibas-10 (After-2017)

Low cost bioengineering for controlling surface runoff, sedimentation and land slide



Rainwater harvest pond conservation for livelihoods and for ground water recharging and Vegetable farming by lifting water through solar pump from the pond



Seepage water raising from non-perennial river bodies through cutoff wall and underground water gallery technology provides year round irrigation hence possible of 3 crop cycle in a year.



Degraded land rehabilitation, fruit plantation and riverbed farming



Degraded land rehabilitation, fruit plantation and riverbed farming

European Day:

According to the invitation of the EU, CDAFN President Mr. Nagdev Yadav and Executive Director Sushil Dhakal traveled together from Bardibas and participated in the Hyatt Regency Hotel in the context of the EUROPE DAY celebration. Both finalist and winner shields of the Green Award were received. The award distribution was done by the ambassadors of various member states of the EU and about 300 participants were present on the occasion. There were 4 organizations in the finalist and we were the 1st winner. Namely, the finalists are; Dan Church Aid (DCA), UN Habitat, Clean up Nepal and CDAFN. On that occasion, the Vice President of Nepal had a dignified presence as the chief guest. H. Excellency Ambassador of EU Member States, EU Ambassador of Nepal, and other international and national high-ranking persons were present on the day. The program started at around 6 pm and lasted till 9 pm. Along with the presence of the chief Guest-Nepal's Vice president, the program was made special with the national anthem of Nepal and the anthem of the EU. On that occasion, HE Nona Deprez, EU ambassador for Nepal, gave a brief presentation on the purpose of EU day, the introduction of its member nations and the EU-Green Award. In the meantime, the special performance of the musical band made the atmosphere of the ceremony very attractive and beautiful. Due to the planning of evening snacks and drinks and dinner, the participants had the opportunity to share their experiences and fun moments for a long time. It was also an opportunity for us to receive congratulations and establish relationships with other bodies and institutions within the EU network. Starting with the application on the call (abstract submission) and after sharing information for this award process for a few days, I felt institutionally proud to finally be the winner. I would like to give special thanks to the president of the organization who helped in this application process, and other employees also deserve thanks.

Photographs of the Event:



