

# RESOLVE

Regenerative Agriculture and  
Sustainable Livelihood for  
Vulnerable Ecosystems

Supported by



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Gana Unnayan Kendra (GUK)

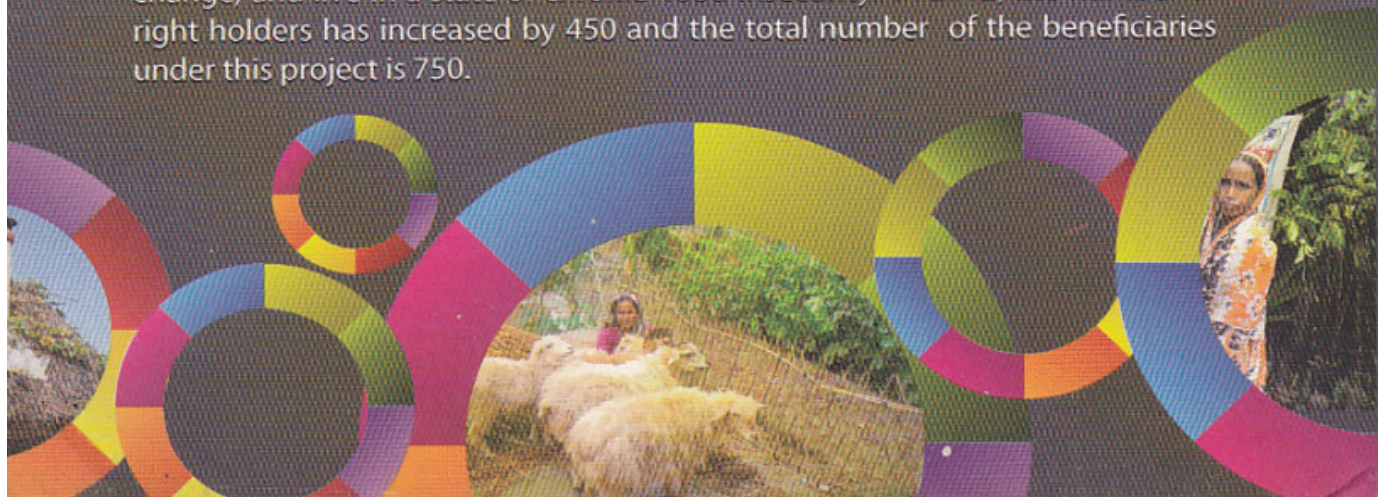
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## Introduction

Sustainable livelihoods approach, from climate change perspectives, requires innovative and comprehensive look, which would not only address the challenges in agriculture production but also capture the ecosystem vulnerabilities in various agro ecological zones.. The most visible climate change impacts such as recurring flooding, cyclones, salinity intrusion, altered rainfall pattern and drought have already negative impacts on agriculture production. Moreover, sea level rise and consequently salinity intrusion has become a major concern in recent years decreasing total productive area in the Southern region; on the other hand, drought has become a major threat to the Northern part of Bangladesh a water scarce area.

In this backdrop, the RESOLVE project is implemented in three geographically vulnerable areas of Bangladesh with one technical partner. The crux of this project is not only to address the different needs and challenges emerged from Climate Change at various levels but also to drive for an innovative solutions with a view to strengthening the learning by doing and contributing to policy making process at national & international levels.

Gaibandha, one of the project areas, is located in the North-West of Bangladesh. This is one of the poorest and most food insecure regions in Bangladesh. This district consists of 7 upazilas, of which the targeted Sundargonj upazila is one of the most vulnerable char areas. Natural disasters like flood, river erosion, storm, cold spell, drought and MONGA (seasonal food insecurity) appear in these areas with devastating impact which causes a massive loss of lives and properties every year. It is estimated that about 1600 families displaced each year due to flood and river bank erosion. In addition to that, climate change has added value to the already prevailing natural disasters. The frequency and intensity of floodshave increased in many folds in recent years due to climate change. Moreover, flash flood, as a consequence of heavy rain in upstream. The project targeted poorer segment of the society who are dependent on climate sensitive sectors such as agriculture, fisheries etc. Analyzing vulnerability to climate change and socio-economic condition, the project selected 300 households of two unions of Sundargonj upazila mainly comprising small holders, landless and women headed households, as they are the worst sufferers of climate change; and live in a state of chronic food insecurity.. In 2012, the number of right holders has increased by 450 and the total number of the beneficiaries under this project is 750.



### Project Duration

October 2010 – December 2012

### Working Areas

District: Gaibandha, Upazial: Sundargonj, Union: 1.Sreepur 2. Kapasia

### Target Right Holders

- Control 750 (direct right holders)
- Non control 250 (non supported)

### Key features of Right Holders

- Women headed
- Women headed based on children income
- Small farmers (under 33 decimal)
- Landless
- Labours

### Objective

To make communities more resilient towards adverse impacts of climate change and increasing food security

### Specific Objectives

1. to demonstrate food secured adaptive agriculture to climate change
2. to diversify livelihood options for reduction in poverty of the climate vulnerables emphasising on women headed households
3. to strenghten community resilience to absorb, recover and reorganize to, and from, climatic shocks
4. to increase pro-poor and pro-development responsiveness of the govern ment to the climate change
5. to amplify linkages, learning through research based advocacy on cross boarder (regional and international) actions for reduction of impacts of climate change,

### Cross cutting objective

To establish adaptive management through learning by doing for scaling up (practicing resilience theory)



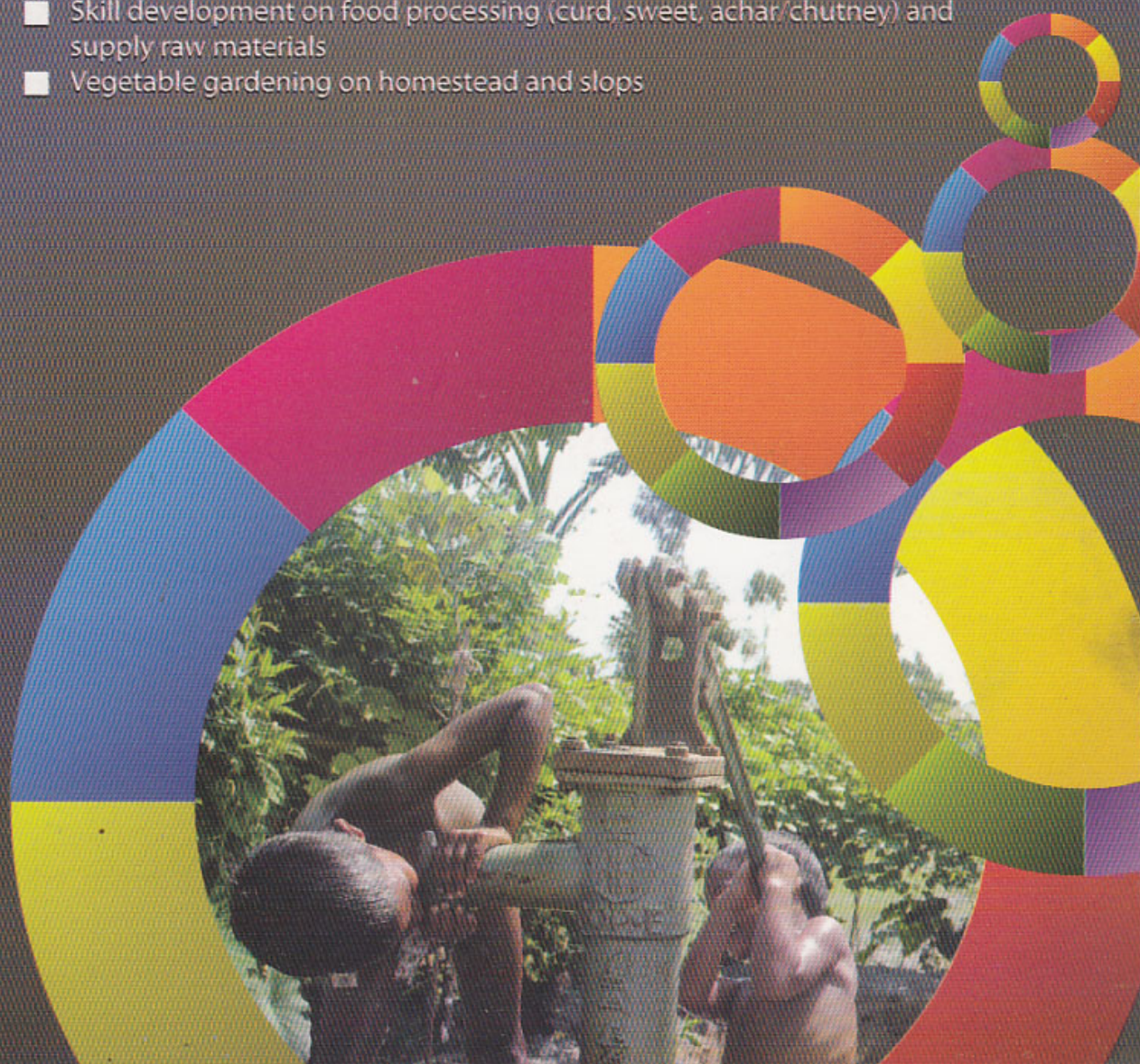
## Activities

### Objective 1: To demonstrate food secured adaptive agriculture to climate change

- Base line survey
- Identification of adaptive techniques and technology for agriculture
- Right holders group formation and mobilization
- Training workshop to enhance knowledge on adaptation measures
- Provide saline & drought tolerant seed and materials to farmer
- Technical and technological support to produce and preserve improved seed
- Support to raise homestead garden (flood prone area)
- Biological pest control
- Seed preservation & establishment of Local seed bank
- Organic fertilizer & agriculture

### Objective 2: To diversify livelihood options for reduction of the climate vulnerable giving more emphasis on women-headed households

- Family development plan
- Skill and capacity building on IGAs
- Asset transfer
- Savings accumulation
- Skill development on food processing (curd, sweet, achar/chutney) and supply raw materials
- Vegetable gardening on homestead and slops



**Objective 3: To strengthen community resilience to absorb, recover and reorganize to, and from, climatic shocks**

- Training on disaster preparedness and management
- Development of volunteer for community awareness on CC and DRR
- Animal Health Camp
- Household Plinth raising
- Tube-well and latrine installation
- Disaster Insurance for crop
- Emergency support during disaster
- Consumption loan (without interest)
- Community awareness by folk song, drama, campaign and documentary films
- Resettlement of displaced families
- Improved oven support

**Objective 4: To increase the pro-poor and pro-development responsiveness of the government to the climate change**

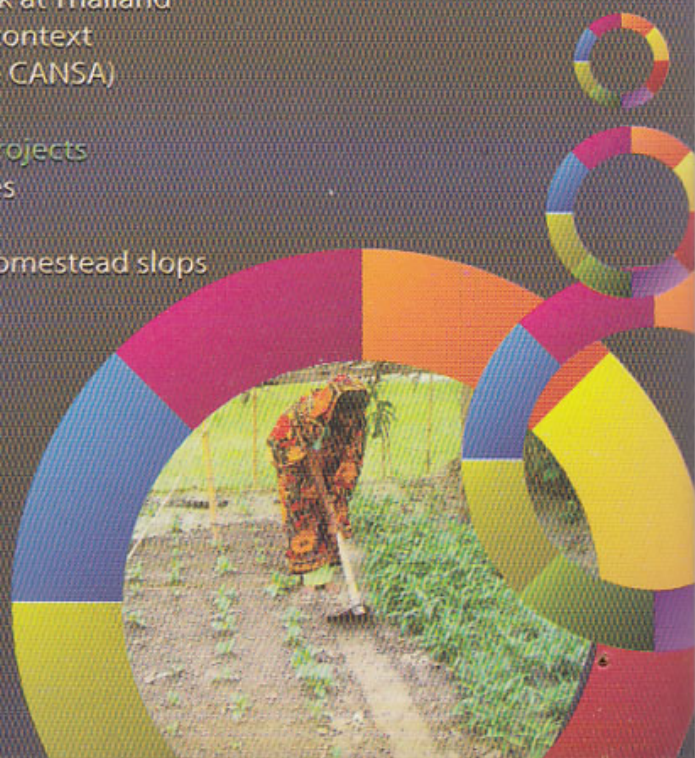
- Advocacy workshop with community people, CBOs, UPs and Govt. line departments
- Farmers learning and recreation centre with solar facilities
- Organise a journalist forum to raise voice on river bank erosion and displaced people
- Organise a parliamentary member's forum to proactive on river bank erosion and displaced people
- Campaign on river bank erosion and displacement to give pressure to govt.

**Objectives 5 and 6: To amplify linkages, learning through research based advocacy on cross boarder (regional and international) actions for reduction of impacts of climate change, and low carbon development pathways**

- A regional network creation for learning, sharing, and creating an effective pathways towards climatic change
- Attend regional and international conference and seminars for sharing and learning (like COP of UNFCCC)
- Visit community seed and food bank at Thailand
- Exposure visit to similar ecological context
- Linkages with existing network (like CANSA)
- Publishing a book on case stories

**Some Innovation different from other projects**

- Right holders instead of beneficiaries
- Community seed bank
- Optimum uses of homestead and homestead slops
- Vertical agriculture at home yard
- Introducing new crop varieties



## Achievements

- Conceptualization of innovative approaches tailored for the communities in a participatory way.
- Establishing the links between the communities, specially with government departments
- Strong network development for learning and sharing across the RESOLVE working areas
- Reflection of the local level challenges and needs in the advocacy initiatives taken at international level
- Skills and capacity of target groups increased on agricultural adaption
- Production cost of farmers reduced by low cost technology (Special Pipe, Leaf Color)
- Introduced and promote alternative crops through demo plots (maize, pumpkin, BINA-7, BR-33, 50, 51, 52 and BARI-3 Pea)
- Optimum used of homestead and slops for diversified vegetables and getting benefit
- Use of organic fertilizer increased that dependency on chemical fertilizer decreased
- Family based planning developed through Family Development Plan (FDP),
- Assets created with the name of women
- Each RHH has at least 2 IGAs round the year
- 40% RHHs are able to consume 3 times meal a day on average for 8 months
- Community people could understand about the adverse impact of climate change
- Community resilience on disaster preparedness and management increased
- Women's health condition improved and carbon emission reduced for using improved oven.
- Tube-well & latrine installation for ensuring safe drinking water,
- The rate of diseases of animal and human being reduced
- The representatives of UPs and government department are more positive to provide services to the poor people
- Journalist forum are active and organized to raise voice on river bank erosion and displaced people
- Participated in COP 16 & 17 and project sharing at side events
- Participated climate change sharing workshop of CANSA

## Progress under the innovation Seed bank

- Awareness of community people on seed bank increased
- Small farmers preserved rice seeds at their houses
- Community people preserved vegetable seeds at HHs level
- Community people sell seeds at local market
- A linkage developed between community people and district level seed traders
- Dependency for seeds decreased
- Production cost of farmers decreased.

## Optimum uses of homestead and slops

- HHs consume increased
- Income level of women increased
- Women's decision and participation increased on agricultural practice.

## Vertical agricultures

- Multipurpose uses of tube-well water
- Food and Nutrition shortage improved

## New varieties introducing

- Opportunity created to cultivate crops adapting with climate change
- Production level of crops increased
- Farmers are getting high price for aromatic variety

