

Key recommendations for Disaster Risk Reduction mainstreaming into post disaster emergency response in the North Western part of Bangladesh

BACKGROUND & OBJECTIVES

The purpose of this document is to extract the key learning and recommendations from the FRIEND project disaster risk reduction (DRR) evaluation. The aim is for these lessons to help better inform mainstreaming DRR in future food security/livelihoods emergency response projects.

PROGRAM SUMMARY

Program Name	Food Security Response Initiatives and Efforts for Floods in North Western Districts (FRIEND) Bangladesh, 2012
Geographical Locations	Gaibandha District ,Fulchari Upazila Jamalpur District, Dewanganj and Islampur Upazilas Kurigram Disrict, Char Rajipur, Chilmari and Raumari Upazilas
Implementation Dates	1 st of December 2012 to 15 th of July 2013
Donor	ECHO
Direct Beneficiaries	10,715 households (phase I) & 4300 households (phase II)
Principle Program Objective	Contribute towards addressing the emergency needs of the most affected households of the June and September 2012 floods in Jamalpur, Gaibandha and Kurigram.
Specific Objective	To ensure that the most affected households have access to adequate and appropriate food to uphold their survival, and prevent erosion of assets in a manner that fosters early livelihoods recovery, reduces vulnerability and upholds dignity.
Expected Results	Targeted households receive income support through cash-based initiatives (CFW/CFT/UCG) in a timely manner to enable them to meet their daily needs, particularly in terms of food requirements
Activities	<ul style="list-style-type: none"> • 6520 BDT cash transfer through cash for work (CFW) activities and cash for training (CFT) sessions • 6520 BDT unconditional cash grant (UCG) distribution to the most vulnerable of the affected households • Additional round of 6000 BDT cash transfer to the selected most vulnerable families from this group through CFW activities and unconditional cash grant • Additional 6000 BDT unconditional cash grant distribution to the most vulnerable families selected from this group

KEY EVALUATION RESULTS ON DRR INDICATORS

Indicator: At least 80% of the CFW schemes results in the protection of agricultural land and village boundaries through the development of embankments that demonstrate effective soil consolidation

KEY FINDINGS

- 88% of the schemes integrated mitigation design features.
- Most schemes were raised 2 feet above high flood levels which was measured based on community knowledge/memory and visual cues like water marks.
- Oxfam estimates their schemes have decreased risk of flood impacts by around 35%.
- According to beneficiary perception, in more than 40% of cases the schemes improved the living conditions of the population through village protection, crop protection and/or improved communication & transport.
- Scheme types implemented included; road repairs (80%), community field raising (26%), embankment repairs (2%) and community homestead raising (9%)
- DRR materials used included bamboo, sandbags, tarps, rope, steel rods for extra reinforcement, cement, culverts and pipes to allow water drainage, banana trees, climbing plants, grass turfing. Solidarités International (SI) favored the use of bamboo and sand bags, Islamic Relief (IR) used cement, culverts and steel rods and Oxfam did a mix of both.
- The project involved the community, Union Parishad and local government authorities (LGAs) including the project implementation officer (PIO) and Upazila nirbahi officer (UNOs) 100% of the time. However, there was less involvement of district level government authorities and union disaster management committees (DMCs).
- Technical problems faced by the workers and program team included;
 - Poor soil structure as sand is difficult to compact, especially during dry season
 - Low soil availability (distance between extraction site and construction site, negotiation time with landowners that sell the soil & lack of availability in locality)
 - Mistakes in the calculation of adequate extra reinforcement material needed (as sand bags, bamboo sticks, rope etc.)
 - Sub-quality soil compaction technique resulting in reduced scheme strength
 - Insufficient balance between available man days and scheme size (i.e. scheme too long for quality & timely completion. Compromises made on raising height and DRR reinforcement materials)
 - Inappropriate site selection (e.g. too close to river bends resulting in collapse)
 - Limited staff knowledge on appropriate use (amount and placement) of DRR reinforcement materials and technical skill on structural engineering issues (e.g. no culvert/ sluice gate to allow management of water pressure etc.)

Indicator: At least 80% of CFT beneficiaries implement 2 DRR related action points that they identified individually or collectively during the CFT sessions

KEY FINDINGS

- Almost all families changed at least one behavior relating to the training received. However, this data is only based on beneficiary declaration, so is likely overestimated.
- According to the declarations, 92% of the beneficiaries changed at least two behaviors relating to the training areas of livestock/ poultry rearing, DRR and income generating activities (IGA).
- 95% of families either changed or improved their IGA practices. Most families started homestead gardening (because it is a common practice, least expensive and most gender-friendly activity).
- A significant number of families started livestock and/or poultry rearing (93%).
- The most common changes for DRR practices were: storage of dry foods, firewood, candles, portable cooking stove, raising of house plinth, repairing of house, etc.
- The participants appreciated that through the training sessions their knowledge on technical issues has been enhanced and they would transform their knowledge into practice (e.g. new seed sewing technique, animal vaccination, start emergency savings fund).
- Although there was a motivation for beneficiaries to change their behaviors after the training, it is necessary to follow up a few months after the training to evaluate properly the percentage of long-term behavior change.

KEY LESSONS LEARNT & RECOMMENDATIONS

While the primary purpose of the programme is improved food security, it is recognised that we cannot simply deliver cash but must include strengthening activities through a DRR-oriented approach to ensure a greater positive impact. To do this, work must be appropriate to minimize potential negative impact and improve sustainability. It is noted that this kind of program generally comes 4-5 months after the disaster but a 'quick and dirty' approach justified by emergency response is not suitable because the context is in the recovery phase. The following recommendations aim to give advice based on experience on how to integrate DRR into food security projects and improve sustainability of outputs while recognizing that resources, time and expertise may be limited.

CASH FOR WORK

SCHEME DESIGN & CONSTRUCTION QUALITY

- **Technical specialists should be engaged** from the very beginning of the project on design, material selection, as well as monitoring of implementation and trouble-shooting within each organization. For example, the inclusion of culverts, pipes or sluice gates in designs allows natural drainage of water and reduces water pressure from eroding schemes.
- **Research into past scheme construction** in the area is recommended to provide insight into appropriate site selection, method of construction, inclusion of strong DRR reinforcements etc. to improve scheme quality and learn lessons from previous constructions.
- A clear understanding of local materials and constraints associated with them is crucial. Soil quality in particular proved to be a constraint to quality. If the soil available locally is not good enough (organic, sandy), it is necessary to see 1) If it is possible to **improve soil quality** (addition of cement, broken bricks etc.). 2) If it is not possible, it is necessary to consider taking soil from other areas further away. This option will increase the cost of the scheme, but will not compromise the main objective of increasing food security. This **technical assessment should be done during the assessment phase** or at least during the beginning of the programme.
- It is crucial to ensure that **no top soil will be used**, and to make proper soil compaction at least twice during the work. The addition of small hand held compactors will improve this process.
- Addition of watering through water point or manual water hose to **ensure moisture content** during compaction will help compaction quality.
- **Technical training of the field facilitators** in charge of the supervision of the work is essential. To do that, it is necessary to have at least one technical advisor in the field team. As this can be one of the supervisors, there will not be any additional costs to do this.
- Technical quality control is improved with a **simple checklist** followed up at least twice a week.
- Development of a guideline for **minimum standards of scheme design** for different contexts (i.e. soil type, hazard types, proximity to rivers etc) and construction quality (e.g. soil compaction, optimum scheme length, use of DRR reinforcements) for CFW activities within the Bangladesh context should be developed and complement the existing government guidelines.

LIMITATIONS OF BUDGET & DRR MATERIALS

- It is recommended for new programs, to **increase the budget line for DRR materials to 10%** of the CFW budget line. While food security remains the first objective of the program, this allows any DRR sub-objective to be effectively implemented.

- Ensuring scheme designs **incorporate low-cost design features** including the ability to utilize locally accessible materials etc. will be important for ensuring sustainability of the schemes by the community. This can also aid community contribution of local materials.
- **Bill of quantities (BOQ) and basic design templates** with suggested materials and budget could be pre-developed then contextualized for easy and fast use for proposals in emergencies.
- **Simple materials/ tools could be purchased** for better compaction and construction quality (barrel full of cement, hand held compaction tool etc.)
- A realistic constraint in the field was lack of latrines and privacy facilities available for men and women to access during CFW. For privacy and to promote good hygiene and sanitation it is recommended that a work shed and **1 temporary latrine each for men and women** be built.
- **First aid kits** in the field are necessary for treating any minor injuries that occur.
- **Visibility for each scheme** would ensure that the community and local government are aware of the contributors and will help the linkage with local government authorities.

COMMUNITY OWNERSHIP OF SCHEMES

- Prior to work commencement, the project should **meet with relevant LGAs** e.g. PIO, local government engineering department (LGED) to build linkages and ascertain which government body is responsible for this kind of scheme (e.g. road, water service etc.) for sustainability.
- Project implementation committee (**PIC membership has to be chosen carefully**), and should be done based on a precise local stakeholder analysis to identify appropriate people. Sometimes the whole management is dependent on one person and the reasons of his commitment can have a strong influence on the way the maintenance will be done.
- The **engagement and capacity building of PIC members is critical** to ensuring their positive impact in the program. Sustainability of schemes is lost if PIC members migrate or drop out of the committee. Each PIC member should receive a training pack on local community mobilisation, schemes management, repair and maintenance & resource acquisition for repair.
- Involving **PIC members from the beginning in design & implementation** of schemes as well as training sessions on DRR will improve knowledge and future practices as well as community leadership on this. This is also important for scheme maintenance, repair and management of sites and will help to ensure the ongoing management and sustainability of schemes.
- Developing a **resource utilization plan for maintenance of schemes** etc. in the future will help PIC's to understand where they can source funds from to assist in their works and how to manage the community in the maintenance process.
- Good practices such as **motivating the community to contribute materials**, free labour and supporting their initiatives (e.g. Building own bridge through donations) should be encouraged, commended and replicated as evidenced in FRIEND project.
- During mobilization period, project should **sensitize the community on the reasons behind additional DRR materials** (increased sustainability, longevity and protective capacity of schemes) to distinguish between CFW as purely cash injection activity but also having community risk reduction and protective purpose.

CASH FOR TRAINING (CFT) / UNCONDITIONAL TRAINING

PROMOTION OF TRAINING BENEFITS

- The way this activity is communicated to the community is important. Generally, the common message promoted regarding CFT is that it is a way to avoid simply giving direct cash without any engagement with the beneficiaries. During the cost extension, the program adjusted its communicated message by **emphasizing the quality and the relevance of the trainings in strengthening people's livelihoods and disaster preparedness**. People were more enthusiastic to participate, and the impact was also improved.

CHOICE OF MODULES & TARGETING

- The classic choice of modules that focus on nutrition, livelihood activities, and DRR seems to be a good choice, but if the number of sessions are limited, it is better to **focus on only a few topics** and to deliver at least 3 session per topics for each target (1 overview/ 1 refresher/ 1 conclusion) to ensure deeper understanding and application of information.
- The target of the training (males, females, teenagers etc.) has to be done based on a **gender and control/access analysis**. If the women are the target, but not the decision maker for example, it is necessary to replicate the training also for men.
- Understanding the current and predicted impacts of hazards and climate variability on the specific context is important to better inform training modules (livelihoods and disaster preparedness). It is recommended that the project **conducts a hazard analysis to assess** for this.

MODULE CONTENT, FOCUS & TIMING

- It is obvious that cash for training is not a good system as generally the training quality is not good enough and can conflict with nearby development programmes. People are generally not motivated to learn but come only to collect their money. However, experience from NARRI shows that unconditional cash training is possible. During the cost extension the CFT was changed to unconditional and the initial fear that people will not come to the training if it is not mandatory to receive cash was not observed in the field. It was in fact the opposite; some non beneficiaries came to follow the training even though they knew they will not receive any cash.
- According to SI and IR experience, the **separation between training and cash distribution** ensures better participation and motivation of the beneficiaries and obligates the agencies to focus more on the quality of the training and to change their communication strategy (e.g. this activity aims to improve resilience capacity through better knowledge) rather than simply delivering cash in a conditional approach.
- Future module content development should **consider the context and hazards** in the location where the training will be given. Content should address these specific concerns (i.e., flood prone area learns about raising shelters, WASH in floods, hanging gardens, flood early warning basics; insect plagued areas learns about integrated pest management approaches for crop resilience, saline inundated area learns about saline resistant crops, rain water harvest etc.).
- **Baseline studies (e.g. knowledge, attitude and practice) should be designed** to feed into decisions on the module content and indigenous/proven practices should be incorporated.
- Module content should also link with all other aspects of the program for example, **resilient livelihood options and CFW maintenance & construction skills** to assist in the ongoing maintenance and repair of CFW schemes (e.g. understanding quality material requirements and DRR scheme features, how to manage a work site etc).
- Greater **budget should be allocated for learning tools** – e.g. games, brochures, posters, general IEC etc. both for visual cues, take home messages and improved learning.

- Reducing the number of components to include sessions dedicated to **practical implementation or demonstration** during the training sessions is recommended. Community desire practical approaches to improving livelihoods and disaster preparedness.
- Relevant **goods distribution could compliment the cash grant** after particular sessions (i.e. seed distribution after training session on homestead gardening).
- **Behavior change/ knowledge improvement should be evaluated** at 1-2 months after the training to inform the next sessions. Action plans for community application of learning is also essential.
- Support the **use of information, education and communication** (IEC) materials on disaster preparedness actions at household and community level, natural resource management and food security. Link to existing organizations in the areas already doing this (e.g. BBC media action).
- Use training sessions to **promote measures that reduce vulnerability to food insecurity by enhancing incomes and capacities** (livelihood diversification, climate projections, savings etc.)
- Use **participatory methods to support men and women producers to assess the risks and benefits** associated with traditional and new techniques/ technology options that may help reduce disaster risk and build climate change resilience.
- Encourage local people to share **their knowledge and experience of traditional livelihood strategies** for managing climate variability and recurrent hazards

STRENGTHENING DISASTER MANAGEMENT INSTITUTIONS

DMC CONSULTATION & INVOLVEMENT

- Engaging the DMC structures within CFW and CFT based programs will not only **motivate them to remain active during non-disaster periods** but could build their capacity through involvement in the program and help reinforce the disaster management structure within Bangladesh's legal framework. This can happen by including DMC members in meetings with Union Chairman and other LGAs (PIO, LGED, Union Parisad, water development board) as well as briefing them on their roles and responsibilities as per the standing orders on development.
- Depending on the capacity of DMC's in the working area, members could be asked to present on disaster management system, evacuations processes and flood shelters etc. In doing this, **leadership and empowerment of DMC's** within the community could be fostered and ongoing interaction between community and committees would be encouraged.
- **DMC members could be involved in the training sessions** and learning on scheme strengthening and maintenance both to disseminate relevant information and improve their own knowledge.

SCHEME SELECTION & RISK REDUCTION ACTION PLANS (RRAP)

- Future programs should engage DMC's from the preparatory phase of the program and establish whether an RRAP is in place in the working area. If yes, the **Action Plan should be consulted and scheme selection based**, wherever possible, on implementing a number of these activities. This will both reinforce the role of the DMC in community risk reduction as well as ensure project linkages to LGAs and existing risk reduction plans.
- There is a risk, if the ownership of the land is not legalized enough, that some local politicians/ 'muscle men' can take it as their own property and then the scheme will not be profitable/ beneficial for the beneficiaries targeted. If this risk is highlighted, strong linkage should be ensured with local authorities and a control system developed inside the PIC before investment.

MONITORING

As in most food security programs, the indicators chosen to measure impact included the Food Consumption Score and the Coping Strategy Index. Some limitations in these indicators include:

- These indicators can be strongly influenced by the seasonal calendar so it is difficult to know if the variation is due to the project or others factors.
- The project activities started four months after the flood (it is generally the average for this kind of program in Bangladesh), and the direct food security impacts of the disaster (e.g. losses of crops, available food and immediate job opportunities) are not directly addressed. This program addresses the secondary effect of the disaster (i.e. high rates loans contracted, and assets depletion). It is obvious that the food security indicators are not the most relevant to measure this aspect, so the indicators should be more economically oriented in future (e.g. Rapid HEA), Approaches such as HEA should be used to deepen understanding of the range of factors that affect food security and how these interact with disasters & climate change.
- A comparison should be done between the beneficiaries of the project and a control sample. This was done during the April follow up assessment but not to compare the baseline and endline.

Recommendations:

- To measure the impact of this kind of program, use of the ***Coping Strategy Index and a rapid HEA*** comparison looks more appropriate.
- A micro-level ***stakeholder analysis*** should be done to identify the “promoters and catalysts” and people with interests other than the project logic. The PIC set-up should be based on this.
- A ***rapid gender analysis*** should be done to choose the target and design of training sessions.
- A ***rapid market analysis*** should be done at the beginning of the program linked with the food basket price to establish baseline and for future monitoring for early warning.
- ***Early warning indicators for food insecurity*** should be included in the program monitoring system such as food security basket and follow up of the market price.
- To ensure that these key analyses are done according to standards and shared to the different agencies it is essential to do it at ***consortium level with an internal or external facilitator***.

CONCLUSION

The lessons from FRIEND project have resulted in recommendations to improve DRR integration into future food security programming with CFW and training. The key areas for improvement include:

- Scheme design, technical assessment, appropriate site selection, engineering and adequate DRR reinforcement materials and soil quality.
- Development of minimum standards for scheme design, technical training of field facilitators, increased budget for DRR materials, incorporation of low cost design features and tools.
- Linkages developed with LGAs and relevant government bodies for scheme sustainability, involvement of PIC in design, implementation and capacity building for scheme maintenance.
- Involvement and reactivation of DMCs for systems strengthening.
- Trainings to help community better understand the linkages between their food security and disaster & climate change risk, livelihood resilience, hazard mitigation and risk reduction of schemes. Baseline KAP and evaluation of applied learning to be included.