



Women brick makers in Paramankirai Village in Kilinochchi District, Sri Lanka. 2012 Photo credit: Sangeetha Sundaralingum/Oxfam

# COMMUNITY BASED DISASTER RISK REDUCTION IN SRI LANKA

## A Compendium of Good Practices

The compendium presents good practices of the community based disaster risk reduction (CBDRR) approach implemented under a Disaster Preparedness project in the North and East of Sri Lanka, supported by the Disaster Preparedness ECHO (DIPECHO). Learning drawn from the project can be replicated and built into future interventions. The compendium also highlights the post-conflict scenario, and how CBDRR approach can be a gateway to strengthen women's leadership, governance, sustainable livelihood and agricultural practices.

# 1 INTRODUCTION

The geographical location of Sri Lanka makes it prone to several natural disasters, particularly drought, flood, landslide, cyclone and tsunami. The recent history of armed conflict in Sri Lanka left people in the North and East of Sri Lanka even more vulnerable to natural disasters, due to the displacement.

Resilient livelihoods, food security and other basic needs such as safe drinking water and sanitation are the key concerns among the majority of the returnees who are re-building their lives, particularly women headed families, widows, people with disabilities, poor and small-scale farmers.

Oxfam GB and Practical Action implemented a Community based Disaster Risk Reduction project supported by the European Commission's Humanitarian Aid Department (DIPECHO) in the Northern and Eastern provinces of Sri Lanka, working directly with returnee communities that remain highly vulnerable to natural disasters, as well as with disaster risk reduction institutions at the community, sub-district and district levels.

The project adopted a multi prong approach to mainstream disaster risk reduction into early recovery initiatives to ensure food security and increased livelihood protection of the disaster prone communities in Kili-nochchi and Mannar districts in Northern Province and Batticaloa district in the Eastern Province of Sri Lanka.

An inclusive community based disaster risk reduction (CBDRR) approach was adopted to ensure that the action plan address the needs of everyone especially vulnerable groups. By promoting leadership of women, people with disabilities, children and elderly as partners in disaster risk reduction: mobilising the communities, engaging communities in doing local risk assessment and developing their action plans, these leaders are recognised as change agents who help bridging the gaps between vulnerable communities and governance structure, making their voice heard among local government and authorities.

The case studies in this compendium showcase good practices of these approaches which can be built into future intervention as well as used to build capacity of partners and local Disaster Risk Management stakeholders in order to harmonise and replicate the Community Based Disaster Risk Management (CBDRM) framework in Sri Lanka. The compendium also highlights the post-conflict scenario, and how CBDRR approach can be a gateway to strengthen women's leadership, governance, sustainable livelihood and agricultural practices.

## 2 REPLICATING COMMUNITY BASED DISASTER PREPAREDNESS MODEL AT LOCAL LEVEL



*Lafir Mohamed (green shirt), DIPECHO Project Coordinator from Practical Action is working alongside DDMU's staff. Photo credit: Disaster Management Center, Mannar, Sri Lanka*

Sri Lanka is prone to several natural disasters, particularly drought, flood, landslide, cyclone and tsunami. The 2004 Asian Tsunami was the worst natural disaster in Sri Lankan history, causing 35,000 deaths and extensive damage and loss, affecting millions of people.

It also has a recent history of armed conflict, causing large-scale loss and multiple displacements for the civilian population. With the end of the civil war in 2009 more than 350,000 people became internally displaced from the North and East of the country. The subsequent resettlement and recovery process was only coming to a close recently.

The conflict may be over but the risk posed by natural disasters remains, particularly in the North and East where people's levels of vulnerability is also significantly higher due to the displacement.

The Ministry of Disaster Management and the Disaster Management Centre were established in early 2005 (post-tsunami) and a road map for a safer Sri Lanka was developed to guide the disaster preparedness planning and implementation process in the country. Disaster risk reduction institutions were established at the district, sub-district and community levels to implement the road map.

However, both the technical and leadership capacity of the district level Disaster Management Unit (DDMU) has always been a concern throughout the country, particularly in the North and East. This challenge has created a vacuum where the coordination and communication with stakeholders at district, sub-district and community levels remains low, resulting in low levels of engagement in disaster preparedness activities.

To support the DDMU in Mannar district, and to strengthen their disaster risk reduction (DRR) capacity, Oxfam GB and Practical Action adopted a **Coaching Methodology**, which is a more active and thereby more effective strategy than the conventional skills transfer mechanism such as training and workshops.

With this approach, Practical Action's field staff work alongside DDMU staff at the DDMU office in Mannar, participating in monthly planning meetings and involving themselves in activity implementations. No formal training but daily briefing on the DIPECHO programme was given to the DDMU staff.

Through constant support and encouragement from Practical Action staff, DDMU gradually increased their engagement in the programme and built their confidence to lead DRR processes while learning to implement them.

The methodology helped bridge the gap between Practical Action's and DDMU's staff, strengthen relationships and created a better mutual understanding of each other's DRR mandate. It created a more thorough and deeper understanding among DDMU staff on DRR process, rather than focusing only on the outputs. Finally and most importantly, the coaching methodology allowed the DDMU to coordinate and harmonise DRR initiatives and to advocate for the replication of the Community Based Disaster Risk Reduction (CBDRR) model within the district.

Practical Action works in two out of five divisions (sub-districts) in Mannar district. With the experience gained through coaching, the DDMU decided to work in three other divisions as well. To do this, they identified organisations working on DRR in these areas and facilitated a consultative process to implement the CBDRR model in parallel to DIPECHO project.

The DDMU is now working independently in these two divisions implementing the DRR process and model that they learned through DIPECHO. They have developed a plan for '100 Days of Action', which is a common work plan for the entire district and a basis for continuing the CBDRR model in Mannar, using the CBDRR methodology and tools to reach out to all communities. They also influenced the district administrative authority (District Secretariat) to issue a request that all the DRR stakeholders should work in consultation with them. This enabled the DDMU to replicate the CBDRR model with these other stakeholders and ensure a more standardised DRR methodology.

The DDMU has now incorporated the CBDRR process into their annual planning and budgeting cycle, building upon the momentum which has already started. The budget and human resources available for the DDMU for implementing CBDRR may not be as intensive as in DIPECHO, but it is certainly good enough to start the process and replicate the methodologies in an affordable manner.

The Mannar model is also being shared with other capacity-building programme implemented by UNDP and OCHA in collaboration with the Disaster Management Centre in five districts in the North and East of Sri Lanka.

**The Mannar experience reflects that CBDRR can be replicated by the government's DRR institutions if the methodology, tools and approach do not demand high-end resource investment. This model may not be as qualitative in its outcome but it does help to ensure affordability, realistic continuity and sustainability of the CBDRR approach.**

### 3 PARTNERSHIP WITH YOUNG CITIZENS



*Skilled CBFs during the training to be the first responder. Photo credit: Arvind Kumar/Oxfam*

DIPECHO project in Sri Lanka is a story of a 'Partnership with Young Citizens' who lead from the front and become ambassadors of Community Based Disaster Risk Reduction (CBDRR). These young women and men have one thing in common: multiple displacements since they were born and continued to explore the available opportunities to strive in a post-conflict environment.

Since its inception, the project started working with these young people and created an environment of 'partnership' for them to lead the project. Community-Based Facilitators (CBFs) were identified in each of the target communities and were professionally trained on community based disaster risk reduction throughout the project implementation.

While the CBFs interacted with people in their communities, they gained popularity as 'local leaders' for disaster risk reduction. The trained CBFs mobilised community based organisations such as farmer's organisation, fishery groups, samurdhi<sup>1</sup> (a poverty alleviation group at community level), youths and women groups, income generating groups and local administrative appointees (Grama Niladhari) on the importance of disaster risk reduction in the context of resettlement and recovery.

Members of community level disaster management committees were trained on various aspects of disaster management such as role of disas-

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<sup>1</sup> a national poverty-alleviation programme

ter management committees, response management, risk and resource assessment, disaster management planning and implementation, etc. These young people not only worked closely with the people living in their own communities, but at the same time facilitated interaction among government agencies and the communities.

In Sri Lanka, Disaster Risk Reduction is still very much a top-down approach where government agencies decide what kind of Disaster Mitigation (only infrastructure) initiative is required. Even the traditional village development plan in Sri Lanka is very much top down where space for community participation is little. In such a scenario, CBFs were able to bring the community forward in planning, budgeting and decision-making processes from bottom to top by facilitating the process.

**The young leaders became the change agents who implement CBDRR through a rights-based approach. The CBFs bridged the wide gap between the government agencies and communities, providing a natural space for communities to voice the problems, needs and opportunities.**



*CBFs Creating Awareness on Local Risk Assessment Photo credit: Paramanathapillai Seran*

With support of the CBFs, the disaster management committee at the community level communities were able to present their disaster management plans in front of the government agencies (divisional secretariat). Furthermore, CBFs also oriented the community level disaster management committee on the government's approval process for small-scale mitigation activities.

Interface with local government and district authorities have made these CBFs informed about the process and procedures to access government agencies to demand their rights as well as inform about the development taking place at the community level. These citizenry leaders have become a communication channel between the disaster management agency and community to update on the progress as well as provide ac-

tual and correct information for the agency to conduct rapid assessment for effective response in times of disaster.

During the flood in 2012 in Kilinochchi and Mannar district, CBFs facilitated evacuation and organised communities at the safe shelter ahead of the flood. They also assisted humanitarian agencies and government departments to speed up the relief distribution and camp management. Now the disaster management unit at the district level has identified these CBFs as a skilled resource for the district and are currently seeking their support to roll out the DIPECHO model in other areas too.

Government Agents in Kilinochchi and Mannar have recognised them as CBDRR professionals and instructed government and non-government agencies to consult CBFs for any development and disaster risk reduction intervention. CBFs have guided several agencies such as Caritas, ZOA, World Vision and Sri Lanka Red Cross Society (SLRCS) and shared their experience as a leader of CBDRR.

As an impact of the support provided by DIPECHO in terms of grooming them as young leaders, three of the community based facilitators have as Poverty Alleviation Officers. These young women leaders were able to showcase their experiences, leadership quality and credentials gained through DIPECHO intervention in their community to the local governments, which helped them to become a part of the community level governance structure.

# 4 CASH TRANSFER PROGRAMME AND DISASTER RISK REDUCTION - AN APPROACH TO FOOD SECURITY AND LIVELIHOOD PROTECTION



*Women Leading Cash for Work Program under Small Scale Mitigation Initiative  
Photo credit: Sangeetha Sundaralingum/Oxfam*

Three years after the end of the civil war, food insecurity continues to be a widespread problem, particularly in Kilinochchi and other Northern districts of Sri Lanka, where the resettlement process is officially completed. Most households stopped receiving WFP food assistance over a year ago and ground level assessments indicated that the level of indebtedness and food insecurity and livelihood vulnerabilities has been increasing.

The main sources of income for people of Kilinochchi are agriculture (including livestock), fishery, and wage labour. A recent food security study estimated that 24% of household income is generated by non-agricultural daily wage labour - representing the third largest livelihood activity.

The mechanised construction work does not offer much employment and are almost exclusively for men. In many cases, the male members of the families has been killed, detained, is missing, injured, disabled or in hiding. Thus, families are unable to make money from daily wage labour.

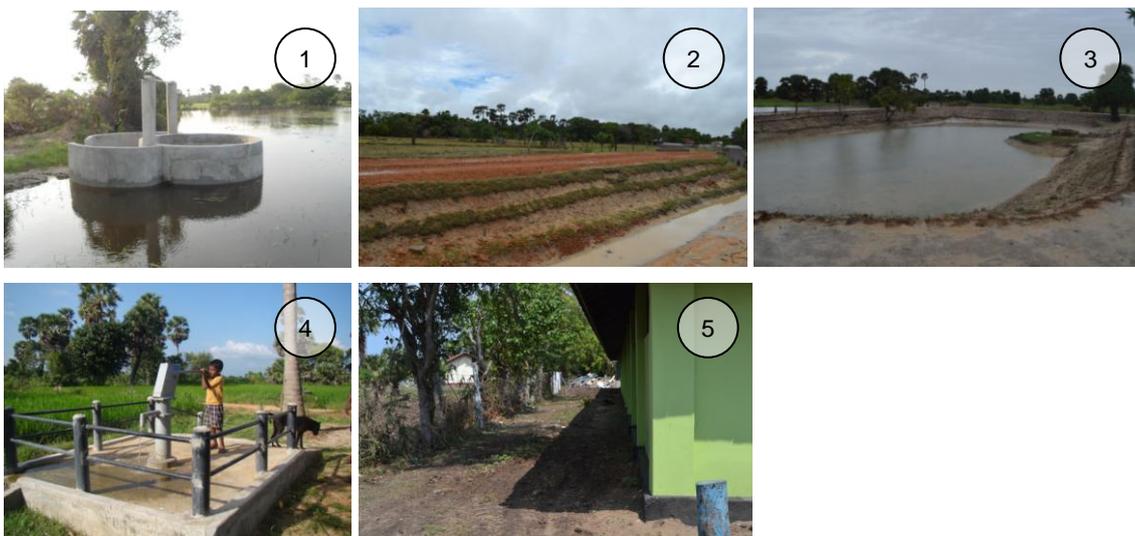
The DIPECHO project adopted a multi prong approach to mainstream disaster risk reduction in early recovery and development while designing

initiatives, such as increasing resilience of critical infrastructure such as water and sanitation, to ensure food security, livelihood protection, of the vulnerable communities in Kilinochchi. As a process of the risk reduction and analysis, communities developed the risk and resource map identifying the potential threat to food security and livelihood during the flood and drought seasons.

A drought assessment conducted under the DIPECHO project showed that the availability of daily wage labour in agriculture is lower in *Yala* (drought season) (April-September), compared to *Maha* (rainy season) (October-March). During the interview, a group of women daily wage labourers pointed out that in 2012, they have only 3-4 days in a three month period, compared to 2011, when most of them had more than 15 days of employment.

The emergency market mapping and analysis shows that more than two-thirds of household expenditure goes to food consumption. The drought last year badly hit women-headed households, widows, and people with disabilities who struggled to find opportunities to early money and support to feed their families. Many families adopted negative mechanisms such as borrowing to feed their family. Others were forced to reduce their food intake or to seek dry rations. Comparing two significant negative coping mechanisms, it was found that borrowing money from local money lenders was a much easier option than migrating out of the area to find daily wage labour, pushing them further into debt.

***Cash for Work programme was launched as a small-scale mitigation initiative to address these problems. The approach, based on the local context and anticipation of drought, helped women-headed households, widows, persons with disabilities; elderly and other vulnerable groups to get fair-wage employment for more than 10 days, which ultimately helps the communities to deal with food security and livelihood protection issues.***

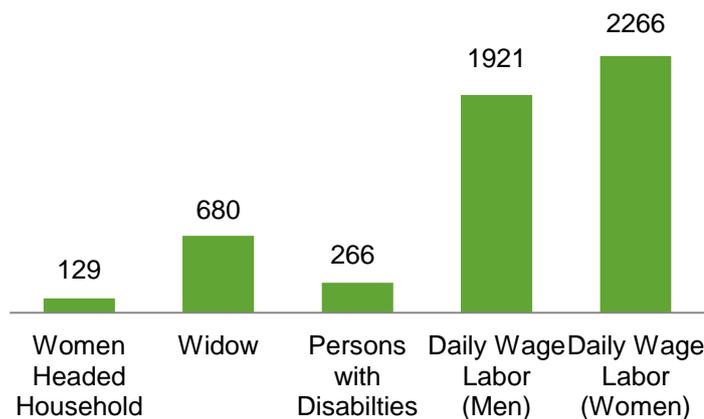


*Small mitigation initiatives in cash for work programme: 1) construction of accessible dug well with flood protection wall; 2) road construction with culverts for safer evacuation; 3) a de silted pond to drain out flood water and earth raising for evacuation; 4) an accessible and disabled-friendly hand pump located at an evacuation shelter, and 5) raised ground for Safer Evacuation Shelter*

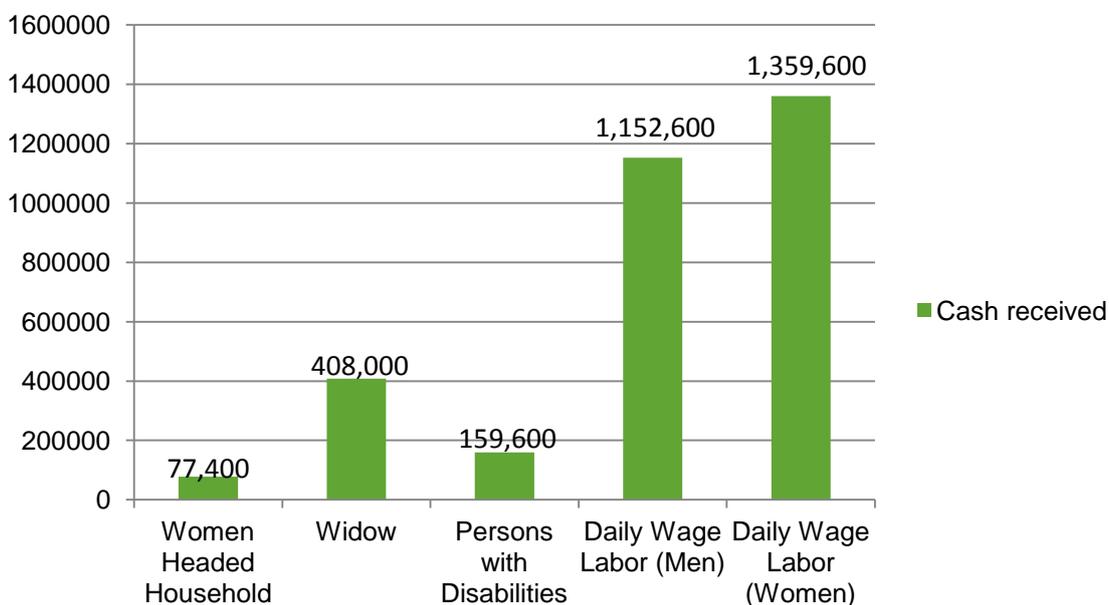
**During the peak of dry season when there was hardly any other opportunities for them to earn income, Cash for Work programme through small mitigation proved to be the sole opportunity to work in the project area.**

On an average, each individual receives LKR 6,000 (around 29 GBP) for their work in the small-scale mitigation. More than five thousand (5,262) individuals including women headed households, widows, people with disabilities and daily wage labourers (women and men) across 25 communities in Kilinochchi district benefitted from this programme during July to November 2012. People with disabilities can also lead the process by providing support and monitoring to the progress of mitigation work.

**Figure 1 – Cash for work beneficiaries in Poonagare and Kandavalai Division of Kilinochchi (people)**



**Figure 2 – Cash received for daily wage (600 LKR / day)**



The benefit of designing small-scale mitigation projects through cash for work is multiple when there is opportunity for income generation under a pertaining impact of annual flood and drought. In addition, the cash for work programme was able to showcase that strong social mobilisation on disaster risk reduction can facilitate early recovery and development.

# 5 A LOW-COST INNOVATIVE APPROACH TO DROUGHT MITIGATION

As an island located close to the equator, Sri Lanka is prone to dry weather conditions. Large-scale droughts occur every three to four years, impacting negatively on people's lives slowly and invisibly. Over the past four decades, more than 12.5 million people have been affected making Sri Lanka 7<sup>th</sup> in the world in terms of drought event and vulnerabilities (Source EM-DAT)

Last year (2012) the drought affected people in more than 16 districts in the North, where the majority is the returnees who were already facing multiple vulnerabilities while struggling to rebuild their lives.

As a part of the recovery efforts in Northern Sri Lanka, government agencies and humanitarian and development actors have focused on livelihood recovery to increase income among poor returnees. Support for home gardening, livelihood infrastructure and grants are some of the key initiatives under the livelihood assistance program in the North. With the establishment of the credit market facilities through the public and private banking system, returnees are now able to access loans for livelihood related work such as home gardening.

However, the Drought Assessment facilitated by DIPECHO in 2012 shows that most of the livelihood assistance programmes, particularly the small-scale programmes such as home gardening, faced huge setbacks due to the drought. In the North where rain-fed cultivation is the only option, home gardening needs to be considered carefully, based upon the availability of water.

DIPECHO's mandate is to promote simple and inexpensive methodologies for disaster risk reduction where the community is at the heart of the intervention.

**Under the project's small-scale mitigation initiatives, provided a low-cost solution to deal with the drought. Through risk and resource mapping, disaster and development planning and the assistance from the Farmer Information Centre, communities came up with the idea of Storing Rain Water and Advancing Planting Time during Yala (dry) Season.**

## Storing Rain Water

Tank-based irrigation systems normally dries up during the Yala (dry) season and so there is no water available for farmers to plant a second crop. Even though popular field crops such as chilli and onion require only small amounts of water, they require water regularly over a period of 6 to 7 months.

During the hazard and problem prioritisation activity, communities in Kolakurachchi and Alankerny came up with the solution of water harvesting with a dug well to support home gardening. In these two communities, most of the households have received home gardening support from the government and non-government agencies.

The idea poses a couple of challenges. Storing water in concrete channels or in a tank is expensive and beyond the community's financial capacity. In addition, the soil permeability is quite high in these two communities and the ground water is highly saline.

However, based upon past experience and community knowledge, it was suggested to use a plastic sheet to line the dug well in order to avoid the permeability issue and to simply store rain water. Four families in two communities (Kolakorachchi and Alankerny) agreed to provide their farmland in order to pilot test the initiative. A Research Officer from the Department of Agrarian Services took the sole responsibility of providing technical support to assist the community while they dug a 170-feet wide and 4-feet deep harvesting pond and lined it with the plastic sheet, giving it a storage capacity of 212,000-litres.



*Low cost rain water storage model. Photo credit: Paramanathapillai Seran*

It was finally a dream come true for people in the area who had never seen such a way to capture rain water, This pond has changed the Yala (dry) season cropping pattern, enabling them to plant field crops during the dry season and benefit from one additional planting cycle.

The farmers in Kolakurachchi and Alankerny communities have now collected water in the pilot pond with its full capacity and soon they will start the micro irrigation. The Departments of Irrigation and Agrarian Services have now approved the low-cost water-harvesting pond (273,345 LKR for 4 households) as well as the innovative approach, and decided to promote the piloted model within the district.

**In an anticipation of future drought event in Sri Lanka, vulnerable communities are prepared with innovative solutions to minimize the drought risk this year.**

## Resilient and Sustainable Agriculture Practices

In Kilinochchi district in Sri Lanka, Attakari paddy seed variety, considered a High Yield Variety (HYV), is becoming popular among farmers. Both large-scale, small scale and poor farmers have adopted the Attakari seed paddy to maximise their profit without considering issues such as soil fertility, excessive usage of fertilizer (50 kg for one care of land) and flood risks.

As a result, Attakari is giving less produce while the market price of the rice remains low. In one acre of land, normally 18-20 bags (70Kgs each bag) can be harvested. Three to four years back, the same Attakari seed paddy produced 25-30 bags in one acre of land.

Through the establishment of a **Farmer Information Centre**, a part of Community Action Plan supported by DIPECHO project, several flood and drought affected farmers were able to talk with each other during monthly meetings. An exposure visit to Training and Research Centre in a nearby district proved to be instrumental to expose farmers to more resilient practices and seeds.



*A farmer is showing the size of a matured Cennaity plant. Photo credit: Paramanathapillai Seran*

The farmers were introduced to **Cennaity** seed variety. Although it is a less popular traditional variety due to the promotion of high yield variety (HYV) paddy seeds, it requires lower cost to grow and does not require chemical input, compared to Attakari. Excessive usages of chemical fertilizers have been seen one of the major reasons of ground water pollution and fatal diseases in the area.

Attakari is harvested with mechanised system while Cennaity requires labour intensive harvesting manually. This makes Cennaity better for the local job market as it provides job opportunities for unskilled daily wage labourers who normally would have to travel far from their home to find a job.

Cennaity variety is also more resilient to flood. A Cennaity rice plant is around 4 ½ feet high. Attakari's height is only 2 ½ feet which makes it more prone to flood impact.

After the visit, ten farmers agreed to plant Cennaity variety. Each individual farmer planted Cennaity in 1 acre of



*Farmers learning seed broadcasting at the Training Center. Photo credit: Paramanathapillai Seran*

land in Maha (rainy) Season. For demonstration farm, a one day training programme in the field was organized by DIPECHO in collaboration with the Department of Agrarian Services and technical input from Practical Action.

With the successful outcome, the Department of Agrarian Services has decided to buy the Cennaity produce from all 10 farmers at the price of LKR 3,000 (around 14.5 GBP) for one 70-kilogram bag, whereas the local market rate of Atakari is 2,200 LKR (around 10 GBP) per bag. The department has also taken the responsibility to distribute the Cennaity seed paddy to various farmers association to promote agricultural practices which are more flood resistant.

**“I strongly believe that, the Cennaity Seed Variety will not only increase the soil fertility but at the same time increase total production while Attakari’s production rate per acre will reduce drastically in future. In addition, Cennaity is a Flood Resilient Seed variety which will be able to reduce the loss and damage due to Flood.” -- DIPECHO beneficiary.**

## 6 RISK SMART INCLUSIVE PROGRAMMING-CBDRR ADVOCACY TOOL

A chronic problem affecting communities supplied by water reservoirs is the lack of access to protected water sources during annual floods. When dug wells in the area are inundated, residents are left with no choice but to travel long distance to get safe water, or risk consuming unsafe or hazardous water. Sometimes communities have to face this precarious situation for over 2 months until water purification activities are carried out by government officials

The DIPECHO mandate is to promote simple and inexpensive methodologies for disaster risk reduction where the community is at the heart of the intervention. A community based disaster risk reduction approach was adopted where the community does the local risk assessment and develops their action plan, linking authorities, agencies and other relevant stakeholders.

**Risk smart (inclusive) programming** is a step towards making a conscious initiative to build resilient infrastructure where it is accessible to everyone in the community. Vulnerabilities differ among women, people with disabilities, children and elderly and risk measures should be able to address the need of all affected communities and groups. In this approach, the most vulnerable communities raise their issues during the development of risk reduction measures and influence the decision of community to incorporate their needs into implementation.

In the course of doing the local risk assessments, communities identified drought and flood as the life-threatening hazard and proposed to adopt indigenous knowledge to deal with drinking water scarcity during flood and drought seasons. In these two locations of Kilinochchi and Mannar, communities are able to deal with drinking water scarcity using their own management skills and knowledge. In addition the design is child friendly and provides for the needs of the elderly and disabled community members – this has been greatly appreciated by the community.

In 2011 when floods hit the North and East of Sri Lanka, Paramkarai community struggled for more than two weeks to access clean drinking water as most of the dug wells in this area has salinity properties and the water is not drinkable. The DIPECHO project facilitated non-agricultural adaptation to reduce the impact of drought and floods on food security. This includes construction of a dug well in the tank bed of Paramakari, farm water management and rain water harvesting. The newly constructed well was able to serve the affected communities with safe drinking water during flooding in 2012.

DIPECHO communities have done Risk Smart Inclusive Programming by installing the hand pump and dug well close to the evacuation shelter and on the tank bed respectively. During the monsoon season, floods might affect water accessibility; therefore the community has put up a flood protection wall and raised the platform for the hand pump.



*Resilient and Inclusive Handpump near the Evacuation Camp. Photo credit: Paramanathapillai Seran*

Last year (2012) when the flood occurred, Mannar was among the worst affected districts in the country. A hand pump, installed under the DIPECHO Small Mitigation Initiative, at an evacuation shelter in GN Paliyadiputhukulam in Manthai West Division of Mannar was able to serve more than 400 individuals during the flood.



*Flood proof dug well. Photo credit: Paramanathapillai Seran*

The above two best practice examples were shared with the Ministry of Water Supply and Drainage. As a result, the Ministry requested DIPECHO's advisory support to integrate DRR into a revised version of the national WASH guidelines. With the collaboration of UNICEF and the Ministry of Water Supply and Drainage, DIPECHO facilitated a regional level consultative workshop to share the outcomes of Risk Smart Inclusive Programming which makes the critical infrastructure resilient to disaster. The Ministry is currently piloting the Risk Smart Inclusive Programming in Batticaloa district with the support of the regional water board office.

**There is no doubt that the Risk Smart Inclusive Programming has provided a strong evidence to influence policy and decision makers at the national level.**



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For further information on the issues raised in this paper please e-mail [policyandpractice@oxfam.org.uk](mailto:policyandpractice@oxfam.org.uk).

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