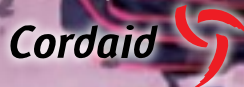


# YES WE CAN'T

Manage Good Practices for Disaster Risk Reduction in Bangladesh

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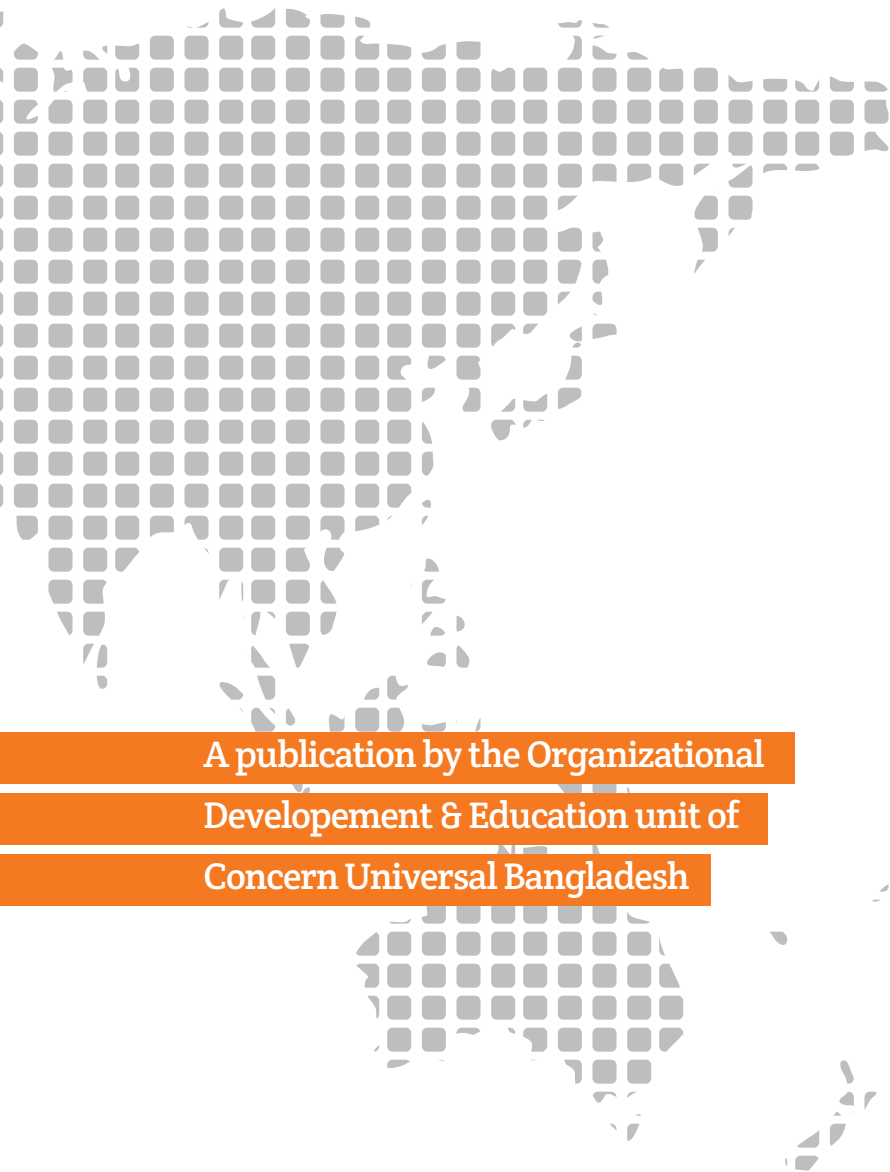


concern universal

for people, for good







A publication by the Organizational  
Development & Education unit of  
Concern Universal Bangladesh

## Good Practice of communities affected by disasters in Bangladesh

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Yellow Rose

# Preface

Concern Universal – Bangladesh (CUB) is an international NGO based in the UK, working in Bangladesh since 1993. Under the “Capacity Strengthening on CommunityManaged Disaster Risk Reduction and Climate Change Adaptation” project, CUB is enhancing the capacity of 85 local partner NGOs in Bangladesh, Bhutan, China, India and Nepal with the financial support of Cordaid (the Netherlands).

All disasters are local and unpredictable, and no one is ever fully prepared. Local communities are

*Community Managed (CM) means that the local population itself leads the process. The organizations that support them merely play the role of guidance advisors. This allows people to make an analysis themselves of their own context, and to take any relevant measures that lead to improve their own living conditions and make them safer.*

*Disaster Risk Reduction (DRR) means limiting the risks of disasters possibly occurring, and also reducing their impact because people are able to take adequate measures.*

on the frontlines of both the immediate impact of a disaster and the initial emergency response. Therefore, we must focus our energy on improving local communities’ resilience to natural hazards. Communities are the essential cornerstone in our capacity building effort for saving their lives and livelihoods.

So often marginalized people are thought of as passive victims of circumstance, whether in economic deprivation, or in the crisis of natural disasters. However it is these communities who have not only survived these adverse conditions

for generations, but have learnt and acquired resilience doing so. The project builds on this local resilience, supporting communities to self-organize and be active agents for positive change. Education is vital, as is the sharing of experience within and among communities. We need to listen and learn from the grassroots – so that we can build upon examples of risk reduction that have been tried and tested in the crucible of local experience.

The project has been identifying and documenting the best practices from the communities with that purpose in mind. They represent a whole range of activities, from community-facilitated activities to those facilitated through NGOs. Behind each is a story of hope in the face of adversity. We hope these stories will educate and inspire further practical efforts at the community level while contributing to the overall global “movement” for disaster risk reduction and community based adaptation.

We are obliged and thankful to our partner NGOs, especially those who have provided us with information and given us opportunities to identify and document these best practices from their communities. Above all we are grateful to the communities behind the case studies who have been so generous with their time. The process of documenting the best practices will continue till the end of the project period (December 2014). If you have found these stories inspiring, please let us know, and we can convey the messages back to the communities.

*Cornelis De Wolf*  
Country Director  
Concern Universal – Bangladesh



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## School is financed by the Community

The idea is to give pre-primary education to the community children by community financing. Its a two year course curriculum designed and printed by SWOVA.

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## A story of CMDRR Approach

This is the story of Kolapota, a village from the Shatkhira District of Southern Bangladesh, where 65 households have taken a joint initiative for disaster risk reduction. They have formed a CBO and CMDRR committee with the facilitation of Protik Trust, a local NGO.

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## Households Garbage Management in Panchagarh city

The community appointed 4 collectors and one supervisor from the month of May 2013 to collect wastage from 1,082 households every day and dump into a specific place marked by Municipality for recycling.

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## Now the villagers have access to safe drinking water through pipeline!

330 households are getting safe drinking water 3 times a day from the pipeline. The committee members are collecting Tk. 25 as water bill from each household and paying electricity bill, operator salary and other maintenance cost.

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## Six kilometer long canal excavation by the community

The community excavated the six kilometer long canal where the local forest department provided 5.25 acres of land with registration by the name of the community.

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## Electricity: Not far away from the Festival of Lights

Atshotobigha, Bilkajla, Kalabaria, Shonnashirchar – the community of these villages at Nalta union in Kaliganj Upazila installed solar panel on their roofs made of Golpata.

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## Prosperity, managed by pro-poor community

The program becomes a sustainable step for making business oriented nursery program for tree plantation, improving of fruit trees, ensuring productivity of households' land and preparing professionally skilled workers.

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## Collective saving, improves community living

Previously they had no idea about savings. At the end of the year 2014, they found the way of savings is an ideal job and it was not a pain at all.

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# School is financed by the Community



The local communities and Social Women Organization for Village Advancement (SWOVA), a local NGO has conceptualized and started an exciting project to ensure pre-primary education for the children in Bogra and Naogaon districts in the Northern parts of Bangladesh. The idea is to provide pre-primary education to the children age between 4-5 years through financed by the community. The key concept of the initiative is that after pre-primary education the kids will start primary education into the formal system when they will be at six. A two year curriculum was designed for the initiative where SWOVA played a key role with technical assistance from Concern Universal-Bangladesh.

The Community Managed Pre- Primary School Program has started in July 2012. At the beginning of the program, a benchmark survey was conducted at selected locations. Then several consultation and planning meetings were organized

among the communities and SWOVA for planning, budgeting, cost sharing and implementation process of the program. Later on selection of students, teachers and school house were completed. Finally school started after providing basic training to the selected teachers. It has to be mentioned here that BRAC started pre-primary education at different locations in Bangladesh. Considering this situation, SWOVA conducted the benchmark survey where BRAC is absent to avoid overlapping. The school house looks like a typical village house with tin roof and bamboo made wall with space of 240 square feet. There are 30 students (55% girls), and one female teacher in each school. Children sit in U-shape on floor mat facing to the teacher and black board. The schools run three hours a day, six days a week. There is no furniture in the classroom except black board. The school provides three books (Bangla, English and Mathematics) and materials (Slate and Chalk) to all students.

The co-curricular activities such as songs, dance, drawing picture, storytelling, rhymes etc. are treated as a curricular activity in the school. Teachers are very friendly, provide equal treatment to all children and give special attention to the weak learners. Peer education, no punishment, and no or less home works, no yearly examination rather regular student's evaluation are parts of teaching strategies and techniques. The big attraction for the children in the school is co-curricular activities which allure children to come school regularly.

The teacher has been selected locally by the community. Concern Universal – Bangladesh provided basic training to the teachers just before school start. SWOVA, on the other, regularly organize refresher course for the teacher at monthly basis. Each school has a School Management Committee (SMC) consisting of nine members from the parents and local elites, where at least four are female members.



শেখ হাসিনা স্মরণীয় ক্রম  
শেখ হাসিনা স্মরণীয় ক্রম  
শেখ হাসিনা স্মরণীয় ক্রম



The SMC take care overall responsibilities of the school.

**Now the question is why and how the poor community providing financial supports for their children education?**

“In Bangladesh, pre-primary education of one year before primary school entry at age 6 has been supported. About 70% pre-school children are estimated to be receiving some form of pre-primary education of varying quality. An operational framework and GO-NGO collaboration guidelines have been adopted by the government to promote pre-primary education with common quality standards. But progress has been slowest. In primary education, Bangladesh has made good progress with initial entry reaching close to 100 percent by official data, but the actual is likely to be 5 to 10 percent below this level. Progress has been made in reducing dropout and improving completion, but non-completers of the five year primary cycle is estimated to be 30 to 40 percent” - (Bangladesh Education Journal, June 2013 – by BAFED and IED-BRAC University with financial assistance from UNESCO).

Considering the above realities in mind, the community along with SWOVA identified the major hindrances for their children education. The common problems found were: (i) no space for children in schools, (ii) who are enrolled not adequately aware of school environment, (iii) children fear of teacher’s punishments, (iv) classroom environment not attract children, (v) parents have to pay unauthorized fee charged by the school authority, (vi)

fear of examination and home works, (v) irregularities of teacher, and (vi) lack of caring attitude of teacher. These factors contributing to encouraged the community people to new school with their own initiatives and finance.

The community proposed to SWOVA to facilitate this process that has long experience to run pre-primary school with different donors support. The community and SWOVA sat together to prepare a

Yearly Budget for one school (in BDT)	Cost sharing (in BDT)	Calculation of community contribution per school
School Operation Cost: Students books and materials: 6,000 School materials: 2,400 Teachers honorarium: 12,000 Monthly teacher refresher: 2,400 School rent: 3,600 Sub Total: 26,400	Community contribution: BDT 26,400	Enrolment fee @ BDT 160 per students per year for 30 student: BDT 4,800
Supervision and Monitoring Cost: Teacher basic training: 5,000 Monitoring & Supervision: 5,000 Sub Total: 10,000	SWOVA contribution: BDT 5,000	Monthly student’s fees @ BDT 60 per students for 30 students: BDT 21,600
<b>Grand Total: 36,400</b>	Concern Universal Contribution: BDT 5,000	Total community contribution per school per year: BDT 26,400
	<b>Total: BDT 36,400</b>	

plan and budget for each school. The budget segregated into two parts, i.e. (i) School Operational Cost, and (ii) School Supervision and Monitoring Cost. School Operational Cost includes the expenditures of student’s books and materials, school materials, teacher honorarium, teacher refreshers, and rent for the school house. On the other hand, School Supervision and Monitoring Cost include the expenditure of staff salary, staff and teacher training,

travel and transportation, reporting and documentation, office management.

It has estimated that to run a school for one year is requires BDT 36,400, where School Operational Cost is BDT 26,400 and School Supervision and Monitoring Cost is BDT 10,000. The community is being paid the total school operation cost which is 72.53% of total cost at monthly basis. See the attached table below the detail breakdown of a school budget for

one year, cost sharing and community contribution.

This community education initiative is not alternative or substitutes rather it is complementary for the government primary education system. Children who will be graduated from these pre-primary schools will directly admit into nearest government primary school at grade one. The community financing pre-primary

school is preparing and developing the young kids so that they can easily adopt the new environment in future when they will be mainstreaming with formal education system.

Till December 2013, the local communities and SWOVA jointly started 45 pre-primary schools in Sonatala and Dupchachia Upazilla under Bogra district and Raninagar and Sadar Upazilla under Naogaon district. Total 1,350 students are enrolled and 45 female teachers were trained and deployed in 45 schools. Five members of project team (one Project Manager and Four Education Supervisor) from SWOVA are managing this initiative and they are quite serious about the quality of the children education. SWOVA regularly share the updates of this initiative with local administration and education authority. Local Government primary schools authorities are very happy that they will get readymade students for their schools in future. Parents are also happy to see their children’s performance comparing to other schools. This model is

being replicated by PARASPOR, a local NGO based in Panchagarh (also Concern Universal’s partner NGO), who opened 3 schools with 90 students. Now there is a huge demand from different communities about the pre-primary schools. SWOVA is planning with these new communities to open another 50 schools in 2014.

# Households Garbage Management in Panchagarh City



Panchagarh city is a grade one municipality located in the extreme northwest border of Bangladesh. The 11.36 sq.km city comprised of 9 administrative Wards with 38,550 populations. The Panchagarh is a high land district and covered with sands and stones which are regularly being lifted by digging pit, as a result, the area is highly prone to earthquake and ruin. With this critical condition, Panchagarh's city people found them more at risk as the households' wastage was not managing properly. The wastages were left beside the roads in polythene bags – which were creating environmental pollution, collapsing drainage system, logged water during rain and consequently the health hazards are regular phenomenon in this city. The households' wastage and, polythene gradually enshrine under the ground. Many of them are not decomposed, therefore, the soil loosing com-

pactness for house building – that leads to more risk in this earthquake prone area. In broader scope of waste management the trend of urban waste creation in Bangladesh says there is an increasing rate of waste generation in Bangladesh and it is projected to reach 47,064 tons per day by 2025. The Waste Generation Rate (kg/capacity/day) is expected to increase to 0.6 % in 2025. In a report on solid waste management in Asia, the data showed that, only in Dhaka, about 42% of generated waste is collected and dumped at landfill sites, and the rest are left uncollected. Hence, a significant percentage of the population has zero access to proper waste disposal services, which will in effect lead to the problem of waste mismanagement.

When waste is not properly collected, it will be illegally disposed of and this will pose serious environmental and health hazards

to the citizens. The country has minimal waste collection coverage often forces waste to be dumped in public lands. One of the most adverse impacts of poor waste management, especially municipal waste, is the incidence and prevalence of diseases such as malaria and respiratory problems, as well as other illnesses through the contamination of ground water. In addition, solid waste often leads to blocked drains causing street flooding. Consequently, mosquitoes and foul odors are born. Due to the lack of funding, there are also insufficient subsidies put in place for the issue of waste management in Bangladesh.

Out of the scenario, a few parts of Panchagarh municipality (Ward No. 3 i.e. around 12% of total area) which is being cleaned regularly as the community took charge of managing the households' garbage by their selves. The initiative started in March 2013 when PARASPOR, a local development organization has begun advocating for the community led waste management program to address the shortcomings of the current system. The community people of Ward No. 3 along with PARASPOR started sharing among themselves regarding the problem, did baseline survey, assessed risk, set activities, planned for resources and implementation and finally made a proposal to initiate the household level garbage management in their area. After sharing, the Panchagarh municipality positively responded to the community initiative and inspired them by granting two covered vans, land for dumping and two hundred baskets for collecting garbage delivered. Thus the community of Ward No. 3 started pilot initiative for household garbage management in May 2013.

The major activity for this initiative is to collect waste from 1,082 households every day and dump into a specific recycling station. To manage this initiative, the community appointed 4 waste collectors and one supervisor and rented a space for garage and office from the month of May 2013. Each household is contributing BDT 35 per month, i.e. total BDT 37,870 for managing the project operation costs. The municipality effectively validated the project by extending the program to an additional ward after just two months. The program continues to be rolled out across the city as the visual and health benefits become increasingly clear.

Income		Expenditure	
Details	Amount (BDT)	Heads	Amount (BDT)
Community contribution		Inception Cost	
Monthly subscription in cash (1,082 HHs x BDT 35 x 8 months)	302,960	Baseline survey, risk analysis, Campaign, communication	20,000
		Capital Cost	
Plastic basket (882 Nos. x BDT 150)	132,300	Plastic basket (1,082 Nos. x BDT 150)	162,300
Panchagarh Municipality contribution		Covered van – 2 (BDT 80,00 X 2 vans)	160,000
Covered Van – 2 (BDT 80,000 x 2 vans)	160,000	Normal van – 2 (BDT 30,000 x 2 vans)	60,000
Plastic Basket (200 Nos. x BDT 150)	30,000	Land for Dumping (lump sum)	60,000
		Bicycle for Supervisor – 1	9,000
Land for Dumping (lump sum)	60,000	Operating Cost	
PARASPOR contribution		Salary for Supervisor -1 (BDT 6,000 per month for 8 months)	48,000
Cash grants	44,000	Salary for Collector – 4 (BDT 5,000 per month for 8 months)	160,000
		Office and garage rent for vans (BDT 5,000 per month for 8 months)	40,000
		Office stationary	4,000
		Total Expenditure	723,300
		Surplus	5,960
Total	729,260	Total	729,260

The table shows the total contribution by the whole community is BDT 729,260, most of which (BDT 471,300) were inception and capital cost for the project. The rest BDT 252,000 was operating cost for 8 months which confirms that the general people of the community other than municipality and NGO, can easily maintain monthly operation cost of BDT 31,500 per month with their monthly subscription fee as the amount is BDT 37,870 per month from 1,082 households. The project shows how a little monthly contribution (Taka 35) can make an enormous change in the environment of their area.

Panchagarh's approach to community waste management provides a replicable model that may be applied at district throughout Bangladesh, and will address a fundamental gap in urban health and social wellbeing.





The excavated canal during drought season



The canal during rainy season

## Six kilometer long canal excavation by the community

*This community initiative is not only contributing to alleviate poverty by them but also contributing to increase food production during scarcity of water for irrigation. They are sending their children to schools regularly, fulfilling nutrition with vegetable and fish, and above all generating extra income for livelihood.*

Drought is the major hazard for the community of the Barind Tract in Nachole Upazilla under Chapai Nawabganj district, the northern parts of Bangladesh. A typical dry climate with comparatively high temperature prevails in the Barind area, especially from April to June and the communities are facing water scarcity issues for drinking, irrigation and household work. TRINOMOOL, one of the partner NGOs of Concern Universal (CU), works in the region, had introduced community managed disaster risk reduction (CMDRR) approach in Mohanoilvillage of Nachole Upazilla since July 2010.

The village (Mohanoil) comprises 250 tribe households (around 2,500 populations) who are mostly day laborers and have no cultivated land of their own. The community is highly marginal and is deprived of a range of basic livelihood needs that perpetuate and vicious cycle of poverty. After series of consultations and facilitations in the CMDRR approach, the community has been begun a project of excavating a six kilometer long canal with the assistance from local the forest department and local administration.

The community excavated the six-kilometer long canal where the local

forest department provided 5.25 acres of land registered in the name of the community. The community provided free labor (average 575 labors per day for 55 days) to carry out the excavation. The total cost of which is valued around Euro 63,250. The project included the planting of 6,000 timber and fruits saplings besides the canal provided free by the forest department. During rainy season, when the canal is full of water, they harvest fish for three months and sell water for irrigation to the land owner beside the canal. They also are cultivating vegetable throughout the year beside the canal. The community also collects firewood from 6,000 plants, and used cow-dung in the land as fertilizer which before was used as fuel. Two community members were employed as watchman for nurturing the 6,000 saplings for the first 5 years of their establishment. The watchman salary is being provided by the forest department.

This community initiative is not only contributing to poverty alleviation but also increasing food production during times of water scarcity. They are supplementing their nutritional requirements with vegetable

and fish whilst generating extra income for livelihood. As a result they are now able to regularly send their children to schools. To ensure the project is sustainable, a 100 member team (comprised of husband and wife teams) a managing the project's development into the future. The biggest achievement of the community is the local government institutions and administrations

*Estimated total cost for six kilometers of canal excavation*

Total cost (in BDT)	BDT 6,805,000 (without land cost) or EURO 68,050
Cost Sharing (in BDT)	<p><u>Community contribution:</u> Labour cost: 575 persons x 55 days x BDT 200 = BDT 6,325,000</p> <p><u>Forest department Contribution:</u> Saplings cost: 6,000 saplings x BDT 40 = BDT 240,000 Watchman salary: 2 persons x BDT 2,000 per month x 5 years = BDT 240,000</p> <p>Total 5.25 acres Khas Land registered in the name of the CMDRR community</p>

are appreciating this community initiative officially and replicating this model in other communities.





**Prosperity,**  
*managed by pro-poor community*



Gaibandha, the northwest of Bangladesh is a densely populated district consisting of seven Upazilas (sub-districts). A large portion of the eastern side of the district- Sundargonj, GaibandhaSadar, Fulchori and SaghataUpazillas are situated on the bank of Teesta, Brahmaputra and Jamuna River. Most of the inhabitants of this locality live in the small islands and on the embankment and regularly affected by natural disasters. UDDYOG Foundation, one of active partners of Concern Universal – Bangladesh, has been working in this area to create improve employment opportunities, education, health issues, and to improve their preparedness for periodic natural disasters. Medicinal plants are a popular and socially accepted commodity in Bangladesh; however there is limited income generation potential in their production. While working with the community, Intercooperation (Now HELVETAS Swiss Intercooperation) and UDDYOG Foundation has been supporting the development of a medicinal plant market. With the facilitation of UDDYOG Foundation, a Pilot program started at Sahapara

Union under Sadar Upazilla of Gaibandha district in 2012 after organizing community, forming Village Development Organizations (VDOs) and Local Service Provider Associations (LSPAs). Union Parishad was one of the key stakeholders for the project, and they closely worked in planning, observing and execution processes

Name of the Plants	Price (BDT / per KG)	Monthly Production amount (in Kilogram)	Market Price (in BDT)
Basok	35	500	17,500.00
Kalomegh	70	200	14,000.00
Tulshi	50	200	10,000.00
Asshawgandha	300	746	2,23,800.00
Total Sale of one union in a month			2,65,300.00

of VDOs and LSPAs. As a consequence, Basok plants were planted in 12 km long road sides of Sahapara Union. Following

harvest, 'The ACME Laboratories' signed a contract with local service provider associations to purchase Basok leaves. Gradually, other medicinal plants, i.e. Kalomegh, Ashwogondha and Tulsi were cultivated including to produce Basok, and 'The ACME Laboratories' have since purchased all the medicinal leaves.

As locals became aware that companies were beginning to increase their importation of medicinal plants, the communities

initiated discussion with the forest research institute, agriculture department and prominent medicinal plants companies.

With Union Parishad's assistance, they cultivate medicinal plants along local roadsides. Trained professionals and local organizations arranged training programs on plant collecting, plant cultivation, taking care of plants and collecting leaves. Responsible local service providers (LSP) arrange purchases from the planters and sell the raw material to 'The Acme Laboratories'. 'The Acme Laboratories' collects the medicinal plants from specific collection center twice a week using their own transport. The LSP collection center follows the buyer's company terms and gives money to the planter. In exchange the LSP gets commission on sale.

Medicinal plants cultivation is assisting in economic development in this locality. The project's name "SAMMRIDHI" means 'prosperity' in Bangla. It contributes to sustainable well-being and resilience of poor and extremely poor households through



A deed between local government and local service provider

social and economic empowerment by cultivating these medicinal plants.

This program started in one Union, but now expanded in 15 Unions along with river islands. So far, 127,278 people were trained and 4,000 LSPs are registered. This is seen by the community as a huge prospect for poverty alleviation.

In July 2013 the community (VDOs) and their organizations (LSPAs: Service Provider Associations) took the charge of managing the project and have since run everything successfully. The following table shows of monthly sales and payback only in Sahapara Union.

Sustainability of this project is as it is fully community managed. Alternative income generation of the poor using unused and roadside lands made has been a successful revenue generating project and has assisted in empowering women from the local area. In addition, compost and homemade pesticide is being produced from waste products supplied by the local market. Collection centers are being established by local community who are confident the market will remain sustainable.









# *A story of* **CMDRR Approach**



*This is a story of Kolapota, a village from Tentulia Union under Tala Upazilla of Satkhira District in South West Bangladesh, where 65 households have taken a joint initiative for disaster risk reduction (DRR). In March 2013 they formed a Community Based Organisation (CBO) and DRR committee with the assistance of Protik Trust, a local NGO. Following the Community Managed Disaster Risk Reduction (CMDRR) principles, the CBO was able to conduct a risk analysis and prepare a community action plan for risk reduction. These activities allowed for effective participatory monitoring and evaluation following the implementation of the Action Plan.*

*These achievements were developed over a 10 months period and were entirely community managed. The 15 member executive committee drew the collective knowledge of its members made up of community elders and leaders. Over a series of meetings, the group identified the major risks posed by natural disasters and documented their livelihoods, health, WATSAN and resources vulnerabilities.*

*Below are some of the CMDRR initiatives developed by Kolapota community.*

#### **Disaster Risk Reduction (DRR) Fund:**

The establishment of a DRR fund illustrates the community's solidarity in addressing their vulnerability to natural disasters. Members from 65 households, most of which live below the poverty line, agreed to deposit BDT 20 per month into a savings account. The President and Secretary of the DRR committee are established as the signatories for the funds that can only be accessed for DRR initiatives within Kolapota village.

#### **Vegetable gardening**



Vegetable gardening has traditionally been common practice within the Kolapota community. However, recent periodic waterlogging events have significantly reduced the region's productive capacity with inundation affecting surrounding lands for more than half the year. A reduction in vegetable production also affects the village's earning capacity, further compounding food insecurity issues. In response, the CMDRR committee has taken initiatives within 65 households to increase the productivity of dry season cultivation.

#### **Compost production**



Due to water logging, the community can cultivate only one crop per year, which negatively impacts food security. To mitigate this, further efficiencies are gained by redirecting funds traditionally allocated to chemical fertilizers. To ensure productivity remains high, 17 households were engaged in compost production from the community's organic waste, with compost distributed throughout the community as required. Beginning from March 2013, the dry season vegetable harvest has been able to fulfill village demand year round.

#### **Seed preservation**

Waterlogging also affects seed preservation forcing households to purchase new seed annually, exposing the community to further market pressures. In a coordinated initiative to retain seed viability, eight (08) households have established an in-house seed bank to preserve and store seeds within their homes, affording the seed a greater level of security than previously experienced.

### Forestation



The establishment of banana trees along one kilometer of road in Kolapota produced a range of community benefits. The CMDRR committee distributed 25% of funds from the banana crop back to community landowners with the remaining earnings subsidizing the committee projects. Additionally, the trees assist in reducing

roadside erosion and provide a supplementary food source for cattle.

### Road Reconstruction



In 2011, a road connecting the village to the main road was destroyed due to water logging. This one-kilometer section road is vital for the villagers to access other parts of the community. After identifying the problem the CMDRR Committee reconstructed and uplifted the road with the help of the Union Parishad (local government).

### Repairing Community development center



The CMDRR committee initiated to appropriate an unused bamboo house to use as community development Centre. With a token contribution from the 65 households, the structure was repaired. It now facilitates regular CMDRR committee meetings, community workshops and youth training programs. It also acts as a focal point to discuss village affairs and an

area of respite for elderly villagers and a general center for community discussion.

### Raising House Level/ Plinth Raising

Most of the houses of Kolapota are made from soil / clay. During regular inundation and waterlogging events, walls are regularly compromised and fail as soil erodes and washes away. With CMDRR committee assistance, 7 families have raised their homes to minimize their exposure to raising waters. There is strong interest among the rest of the village to follow suit.

### Cattle feed (fodders) preservation



For at least 4 to 5 months in a year crop cultivation becomes impossible at Kolapota due to water logging. Therefore, it is a regular phenomenon for marginalized farmers to run out of cattle feed. To address this, 50 families have raised their fodder storage cages above the high water level to ensure the preservation of their fodder.

### Environment friendly cooking stove (Bandhu Chula)



The Bandhu Chula (Friendly Burner) is an ecofriendly cooking stove suitable for use in village homes. The stove reduces fuel consumption and thus carbon emissions whilst alleviating exposure to harmful fumes within households and throughout the village. 40 households among the community have begun using BandhuChulas in their homes while the

committee is continuing with their advocacy in promoting the benefits of BondhuChulas to the remaining households.





## Cost analysis of the DRR activities by the community-

Activities	Community Contribution (in BDT)	Other's Contribution (in BDT)	Total Cost (in BDT)
Participatory Disaster Risk Assessment (PDRA) and Baseline Survey	BDT 10,000 as Human Resources cost	BDT 2,000 as logistic support by Protik Trust	12,000
Community Development Centre (CDC) Construction	BDT 20,000 as Land price (2 Decimal), BDT 15,000 as material cost, and BDT 3,000 as labor cost	BDT 60,000 Old structure value	98,000
Vegetable gardening	BDT 13,000 as @ BDT 200 per HHs for 65 HHs	BDT 1,200 as seed cost	14,200
Compost and other fertilizer	BDT 34,000 as @ Taka 2,000 per HHs for 17 HHs	BDT 3,000 as compost plant construction by a local NGO	37,000
Connecting Road Repaired	BDT 34,000 as labor cost @ BDT170 for 200 labors	BDT 18,500 as Food for work by Union Parishad	52,500
Roadside Plantation	BDT 10,000 for 1,000 banana tree BDT 7,500 for 500 Guava Tree BDT 2,700 as labor cost	BDT 300 for transportation by Protik Trust	20,500
Bondhu Chula (cooking stoves)	BDT 17,500 as @ BDT 700 per Chula for 25 Chula		17,500
Cattle Food & Seed Preservation	BDT 100,000 as @ BDT 2,000 per HH for bamboo and brick and labor for 50 HHs		100,000
Plinth raising and household's tree plantation	BDT 56,000 for House raising (7@8,000) BDT 6,000 for Latrine raising (3@2,000) BDT 5,000 for Cattle house raising (1@5,000) BDT 3,300 for household's tree plantation		70,300
Community people Training	BDT 9,750 as Human Resources cost (65@150)		9,750
Medicine and medication	BDT 3,250 for Carbolic Acid (65@50) BDT 2,100 for Water Purifying tablets BDT 1,500 for Livestock vaccination		6,850
Total	BDT 3,53,600	BDT 85,000	BDT 438,600
Percentage of contribution	80.62%	19.38%	

## Reviewing the recent disaster response by the community in water logged situation

Following heavy rainfall in September 2013, most of the low lying area around Tala Upazila was inundated creating misery for the affected communities.

The Kolapota CMDRR committee has initiated a range of responses to reduce community exposure and vulnerability to floods. Programs related to agriculture, livelihoods, health, education, communication, safe drinking water, aquaculture and livestock have been developed alleviate flood and waterlogging pressures.

The CMDRR committee along with the volunteers was updating the situation regularly. They were distributing water purification tablets to all 65 HHs with procurement made possible by their DRR contingency funds. The CMDRR committee was able to negotiate with different actors including local governments for supports. The community under CMDRR was in a better position compared to other communities in the following ways:

- The community peoples have supported each other either financially or through emotional support.
- No snake found in this area (because of preserved carbolic acid at household's level).
- Only 7 HHs took shelters at nearest roads, 15 HHs earning members went outside their area for income.
- Adjoining muddy roads not completely broken down as banana trees were planted beside the roads.
- Fodders were available within this community.
- Vaccination ensured for livestock as linkages were established with local livestock department.
- They have very clear picture within the community who are affected in what degree.
- Children have regularly attended schools despite of the adjoining roads being inundated.





*Now the villagers have access to*  
**safe drinking water**  
*through pipeline!*



*330 households now have access to safe drinking water. The households are collecting water three times a day from the pipeline which has been operated by a paid operator. The committee members are collecting BDT 25 per month from each household and paying electricity bill, operator salary and other maintenance cost.*

The village “Shimulia” situated in Jhikargacha Upazilla under Jessore district in southwest of Bangladesh. This area is highly arsenic prone in which most of the installed water options were found the concentration of arsenic beyond the limit of Bangladesh Standard which is 50 microgram per liter (mg/l) as prescribed by the Government of Bangladesh to be the maximum line of arsenic contamination. The people of Shimulia has managed safe drinking water for the village and become the example to be followed for fighting the hazard of arsenic in CMDRR approach.

Though the government declared about serious arsenic contamination of this area

in 1999, a number of social problems were found that push the community toward using of arsenic contaminated water yet. These problems were pointed by a local organization named Development and Rehabilitation Organization (DRO) to the people of Shimulia in 2008. There were a very few alternatives for safe drinking water in the villages like rainwater harvester, Pond sand filter, Safi filter, Three-Pitcher method and Two-Chamber-Treatment Unit. Although in the beginning all the alternative safe water options provided were widely accepted by the community, after about a month the villagers started to use these options hesitatingly - very few people, in fact, were found using them seriously as it was hectic to manage those options. It has been observed that, except for a few people, villagers who were still using these alternative safe water options were using tube wells for cooking and washing purposes. There were few green and deep tube wells being used. Apart from a very few families living close to these wells, none of the villagers collect water regularly

from deep and green tube wells. Almost all the villagers mentioned that they do not have enough manpower to collect water from distant places. Women and children are reluctant to fetch water over long distances because of the time and labor involved and also because of bad road conditions particularly during the rainy season. Some of them mentioned that they sometimes fetch water from red-marked tube wells without informing anyone at home. There is a traditional practice in this area that men do not collect drinking water. Villagers also mentioned that if some men do fetch water, other men taunt them for ‘obeying the wife’s command’ or for doing ‘a woman’s work’. Therefore, men usually do not participate in collecting water from common places, unless there is no other option.

In 2008, community took the arsenic problem and other related problems seriously as a remarkable number of people, around 35, died of Cancer cause from arsenic by this time. A fresh motivational





meeting between DRO and the Shimulia community has been employed to raise a greater level of awareness regarding safe drinking water options in the village. Following the motivational meeting and after risk assessment, the community and DRO agreed to install a motor to access deep ground water, as well as an overhead tank and pipeline to distribute the water to every household. And for installing the total pipe-line system they will contribute at their best. After that DRO with the help of NGO Forum (specialized national NGO for Water and Sanitation) get a funding of BDT 2,500,000 from Japan Embassy for the

community and community contributed BDT 100,000 from them initially to install the system in 2009.

Then the question of land and management came. The community selected a pipeline management committee of 15 members and bought 3 decimal land for installing the motor and overhead tank in favour of the committee's name. Beside they decided to give a monthly fee of BDT 25 as operation management for this initiatives. After taking all the decisions, the community installed the pipeline system with the facilitation of DRO as per their plan as given below.

Title of the project	Shimulia Pipeline Project
Location	Shimulia Mission Para, Jhikorghacha, Jessore
No. of households	330
No. of total beneficiaries	1,800
Use of water	20 litre per person per day
Need of water	36,000 litres per day
Overhead Tank capacity	25,000 litres
Motor Power	3 HP (horse power)
Length of pipeline	9,585 feet
No. of stand posts	46
Monthly subscription by the community	BDT 25 per households per month
Project cost	BDT 2,650,000 (Japan Embassy contribution: BDT 2,500,000 Community contribution: BDT 100,000 DRO contribution: BDT 50,000) 3 decimal land provided by the community (cost not calculated)

The installation process ended in April 2009. After 3 months of observation, DRO transferred management to the pipeline management committee in July 2009. The community has since been managing the project by themselves. 330 households now have access to safe drinking water. The households are collecting water three times a day from the pipeline which has been operated by a paid operator. The committee members are collecting BDT 25 per month from each household and paying electricity bill, operator salary and other maintenance cost.

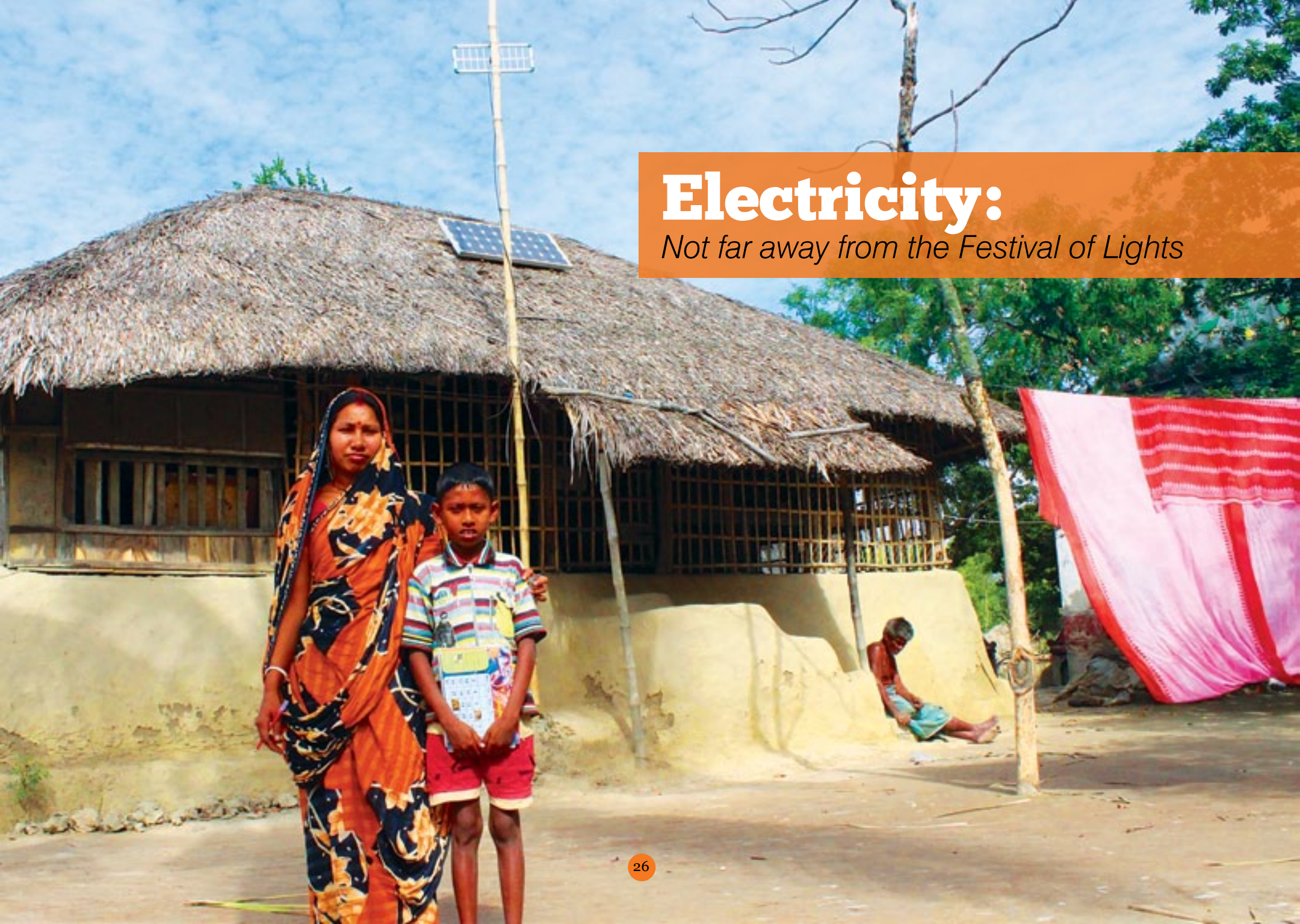
The monthly income and expenditure of the initiative is given in the following table:

Collected Amount per month	Expenditure and savings (monthly)	
BDT 8,250  (@BDT 25 per HHs monthly for 330 HHs)	Operator Salary	BDT 3,500
	Electricity Bill	BDT 1,400
	Mobile and other maintenance	BDT 500
	Total Expense	BDT 5,400
	Balance (deposit to community's join bank account)	BDT 2,850



The overhead tank in Shimulia





# Electricity:

*Not far away from the Festival of Lights*

In November 2013, the government organized celebrations to mark Bangladesh's reaching 10,000 megawatt power generation capacity. While an achievement in its own right, the approximately 38 percent of the people still living without power were not so buoyed by the milestone. Far from the crowds of Dhaka, villages at Satkhira district

**Atshotobigha, Bilkajla, Kalabaria, Shonnashirchar – the community of the four villages at Nalta union in Kaliganj Upazila installed solar panel on their roofs made of Golpata (a leaf produced at Shundarbon mangrove). The connection of TV antennas extended from thatched roofs of mudstone houses in such a hostile environment is a remarkable sight and an evidence to the resilience and innovation of these communities.**

in Southwest Bangladesh have taken ownership of their energy demands by investing in solar power infrastructure to reduce their dependency on the primary energy producers.

*Atshotobigha, Bilkajla, Kalabaria, Shonnashirchar* - the community of the four villages at Nalta union in KaliganjUpazila

under Satkhira District have installed solar panel on their roofs made of Golpata (a leaf produced at Sundarban mangrove). The connection of TV antennas extended from thatched roofs of mudstone houses in such a hostile environment is a remarkable sight and an evidence to the resilience and innovation of these communities.

#### **The story behind the screen:**

KaliganjUpazila of Satkhira District is one of the most remote areas in the coastal Bay of Bengal region and mangrove forest Sundarban. Owing to its geographical location, the area is inherently disaster prone. The majority of the people are poor, mostly fisherman and farmers, experiencing irregular employment and uncertain income and that result in poor physical and mental health, malnutrition, illiteracy, low school enrolment and a low level of hygiene and sanitation practices.

ManobadhikarJanokallyan Foundation (MJF), a local NGO was facilitating community managed disaster risk reduction and climate change adaptation projects in these villages as part of CMDRR capacity

building program developed by Concern Universal Bangladesh. The community learned through the project that social change is feasible where adequate local engagement is achieved. Being inspired by the learning, the community people of these villages formed a CMDRR Committee (CBO committee) and committed to play the major role in their own development.

In engaging with the CMDRR committee, the community determined through risk and need analysis that their agricultural production, children education, income status, and fisheries preservation was significantly hampered by the unavailability of electricity and lack of access to a reliable communication system – due in part to the areas physical geography. Frequent natural disasters compounded these difficulties and obstructed the overall socio-economic development of the project areas.

In response to the risk analysis, the community prepared an action plan and focused on promoting community access to information, assets and resources, knowledge and technologies, extension





and social services and the promotion of self-managed households. As they found that the development of solar power infrastructure is at the root of these initiatives, they asked MJF (local NGO) to provide them with solar system in any easiest way. MJF then linked the community people with local Banks (Islamic Bank and Janata Bank) of Nalta Union from where each household managed a loan of BDT 25,000 to purchase the solar system which is payable in two years' by installments.

Between February and November' 2013, 398 households were connected with solar power. MJF and other NGOs working in the community assisted in installing the system without charge. Out of this calculation, the 398 households of these four villages are producing electricity around 25 Kilowatt by themselves. According to the Power Division, the power generation capacity of Bangladesh through 84 power plants stood at 9,713 MW until October 2013.

### Project value and Output

Total Households	Community People Contribution	NGO Contribution	Total Project Value	Electricity Generation
398	BDT 9,950,000 (@ BDT 25,000 per HHs as material cost for 398 HHs)	BDT 199,000 (@ BDT 500 per HHs for installation for 398 HHs)	BDT 10,149,000 (around EURO 101,490)	24.68 Kilowatt (@ average 62 watt generate per HHs)

### The Benefits

Greater access to electricity and communication has provided immediate benefits in access to agricultural export markets while access to information related to onset disasters has instilled a greater level of confidence in the communities' disaster response and preparedness.

Reliable electricity allows access to recharge mobile phones and keep communication lines open. These benefits assist the logistical arrangements of fish trading as they are made aware of fluctuating prices, market demands and transportation.







## Collective saving, *improves community living*

The 'Golap' group members are filling earth to heighten their dwelling houses to keep secured from river erosion with the support from their fund

*A hand full of rice was put aside every day and pooled at fortnightly meetings. This amounted to 10 KG rice every 15 days. The rice was then sold among the members at a rate BDT 2.00 below the market price.*



**H**aors are synonymous with the Austagram upazila of Kishoregonj district, in the northeastern Bangladesh. 'Haor' is the term given to perennially wet depressions of the Sylhet Basin, often creating a vast wetland with villages like small islands. Haors are very resourceful. It is an internationally important ecosystem. Haors support major subsistence and commercial fisheries and have become an important geographical area for 'boro' cultivation of the country. Apart from the immediate economic benefits, the landscape of Haor areas can also be a very attractive location for tourism.

Both Hindus and Muslims inhabitants the Kishoregonj district most of whom subsist on fish and local farming opportunities. The Hindus are mostly fishermen and the Muslims are farmers. The Hindu communities are generally poorer and more marginalized. They are often forced to borrow money due to the limited earing capacity of local fish markets.

Social Association for Development of Bangladesh (SAD-Bangladesh), one of the partner NGOs of Concern Universal – Bangladesh, works in the Austagram upazila in the Haor area. Under it Livelihood



Security Program (LSP), SAD-Bangladesh formed a women group in the “Monoharpur” village under Austagram upazila. The women group named “GOLAP” (Rose in English) where members are from amongst the 20 Hindu communities.

The group members of ‘Golap’, the women group sit regularly and conduct awareness discussion once a fortnight on the community development. They discuss awareness raising issues related to health, education, enhancing income, government service, gardening and the basic rights. Besides these, they arrange various types of training for their members every year with the facilitation from SAD-Bangladesh.

A major outcome of the LSP project was to assist members in saving activities aimed to provide a safety net or fund for future investment. A hand full of rice was put aside every day and pooled at fortnightly meetings. This amounted to 10 KG rice every 15 days. The rice was then sold among the members at a rate BDT 2.00 below the market price.

At the end of December 2013, members had accumulated enough savings to open a savings account at the AustagramGra-

meen Bank. The members now regularly deposit their savings that supports subsistence or money raising activities involving

Total loan distributed	BDT 185,500.00
Amount of collection	BDT 153,500.00
Balance	BDT 32,000.00
Profit	BDT 6,385.00
Total amount of savings	BDT 51,897.00

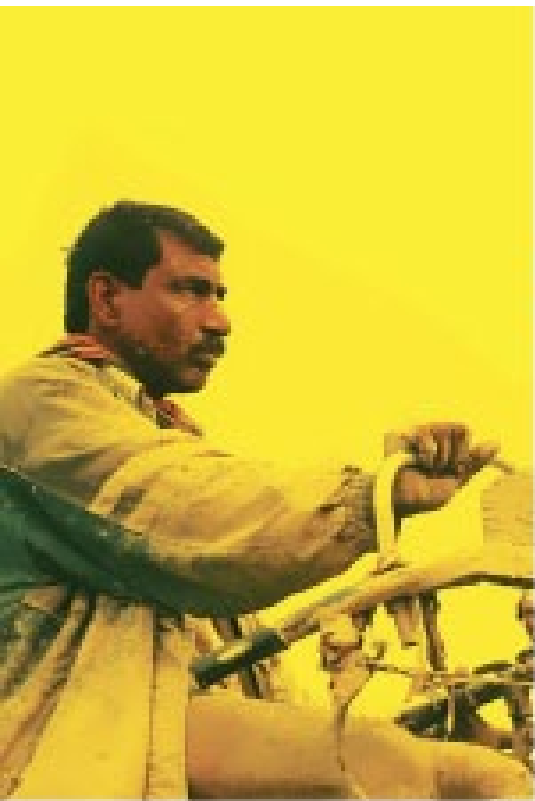
poultry, pigeons, sheep, integrated stoves, B-45 seedlings, plants of fruits and vegetables.

When the savings of the group has risen to BDT 30,000, they decided to run the group as a cooperative society. To support this initiative, SAD-Bangladesh granted BDT 10,000.00 from it’s IGA fund to inspire further community savings activities. With the money generated, they weave fishing nets, prepare fried-rice or puff rice, make handicrafts, and have been able to buy a sewing machine. Twelve (12) members of the group now engage in regular income

generating activities and are in a position to lend money to other community members. Presently, the women group (Golap)

of Monoharpur is waiting to be enlisted with the directorate of cooperatives.

As per the condition, the members are offered money for different income generating activities with 5% profit of the fund.



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