

"Reaching out to vulnerable communities - timely dissemination of weather forecast" (The Field Officer, DRR and Training, disseminating early warning messages with the local government leaders represented in Union disaster management committee - UDMC) (Tuhin Samaddar)

Early Warning Message Dissemination (Бангладеш)

ৰন্যা পূৰ্ব-সতৰ্কবাৰ্তা প্ৰচাৰ (Bonna Purbo-Satarkabarta Prochar)

тодорхойлолт

An effective system for dissemination of early warning messages was established among the vulnerable communities in Chars (riverine sandy islands) of Gaibandha district, Bangladesh, in order to strengthen their coping mechanisms and reduce loss and damage caused by floods.

Early warning systems are an essential element in building resilience through effective disaster preparedness and risk mitigation: the key characteristics of the approach entail linking the intervention units at community level with national and sub-national early warning systems. It also consists of developing the capacity of the local government institutions and organised communities to not only disseminate early warning but to effectively respond to floods. Merely installing an early warning system is not sufficient to equip communities to cope with recurrent floods; it needs to be linked to broader aspects of disaster preparedness and increased response capacity of communities and local government.

The vulnerability and capacity assessment (VCA) is the basis of all measures oriented at reducing disaster risks. The VCA was carried out with the involvement of local stakeholders, especially the target communities, to understand the vulnerabilities and risks associated with floods as well as to gain insight on existing capacities and capacity gaps that needed to be addressed. The process resulted in a risk reduction action plan which was to be jointly implemented by the target community and local government.

The risk reduction plan pointed to the need of having in place a mix of structural, management and contingency measures. This involved linking local, sub-national and national early warning systems, developing contingency and evacuation plans supported by establishment of safe places where people could move during floods. The risk reduction plan also highlighted the need to support household level protection measures - structurally this meant raising household plinth levels above flood levels. In addition, local early warning system was established through installation of flood markers/pillars, and warning flags at key sites. Capacities were built to internalise, monitor and consequently respond to evolving local flood situation.

Building communication channels that link the local institutions to higher level flood forecasting system resulted in streamlining information from source to destination. The weather forecast communication flow is both vertical and lateral – vertically it is a mix of web-based flood information and mobile telephony which begins at the Flood Forecast Warning Centre (FFWC) - the apex body that monitors flood situation in Bangladesh. FFWC transmits information to the sub-national local governments that have digital centres with trained personnel to access information from FFWC website. Trained entrepreneurs at these digital centres are responsible for monitoring flood forecasts and updating the Union Parishad (the lowest level of local body) and communities on evolving flood situation. By analysing and interpreting relevant information they play a key role in catalysing the early warning system.

БАЙРШИЛ



Байршил: Kamarjani and Mollar Char union in Sadar Upazila and Haldia union in Shaghata Upazila of Gaibandha District, North-Bengal, Бангладеш

Сонгосон байршлуудын газарзүйн

холболт89.54877, 25.33119

Эхлэх огноо: 2013

Төгсөх жил: тодорхойгүй

Арга барилын төрөл

- уламжлалт / уугуул
- Сүүлийн үеийн орон нутгийн санаачлага / шинэчлэл
- 🗾 төсөл / хөтөлбөр дээр үндэслэсэн

The local bodies , Union Parishads, use a mix of communication modes - such as miking (public address system), radio and cellular phone - to transfer early warning information to the communities. On the other hand, flood markers are installed locally that are adjusted according to increase in water levels. Designated trained persons – Youth Response Team - take the responsibility to do this. This is monitored by community and the Union Parishad. In normal times, drills and simulations are conducted by trained team of village volunteers/first responders. They take the lead in organising evacuation and movement to safe places. The government (and project) brings in the logistic support, especially transportation, to facilitate evacuation and movement to safe places.



Training on Early Warning Message Dissemination (Training instructor demonstrating the meaning and process of flood flag hoisting) (Saiful Islam)

АРГА БАРИЛЫН ЗОРИЛГО БА ЭЕРЭГ НӨЛӨӨ

Арга барилын үндсэн зорилго, зорилт



Local volunteers Disseminating Early Warning Messages (Tuhin Samaddar)

To promote resilient communities through improved flood preparedness that reduces loss and damage of vulnerable people's lives and protects their livelihoods in the chars of Gaibandha district.

Тухайн Арга барилын хүрээнд нэвтрүүлсэн Технологийг хэрэгжүүлэхэд дэмжлэг болох нөхцлүүд

- Нийгэм / соёл / шашны хэм хэмжээ, үнэт зүйлс: The intervention built upon traditional coping mechanisms and indigenous systems of disaster risk management. The blending of the traditional and indigenous practices with contemporary knowledge and preparedness practices acted as drivers in terms of choice and adoption of technologies.
- Санхүүгийн нөөц, үйлчилгээний хүртээмж / боломж: The DRR intervention facilitated leveraging of institutional financial resources (Local government budget) and secured cost contribution from target communities.
- **Ε**γτэц **30Xи0H байгуулалт**: The Disaster Management Act and Standing Orders on Disaster of the Govt. of Bangladesh provides for a decentralised disaster management institutional setting from the central level to the local level.
- **Талуудыг хамтын ажиллагаа/зохицуулалт**: The initiative built a good coordination with state actors at various levels. From time to time it was also able to secure collaboration from non-state actors around specific thematic areas such as obtaining livelihood support in non-farm sector, synergising disaster risk management work, ensuring access of vulnerable communities to social protection measures.
- Хууль, эрхзүйн хүрээ (газар эзэмшил, газар, ус ашиглах эрх): Disaster Management Act, 2012 provides the legal framework for disaster risk management in Bangladesh.
- **Бодлогууд**: A set of policies supports the Disaster Management Act. Government's standing orders on disaster clearly defines the roles and responsibilities of various ministries, line agencies, local govt., mandated committees and other non-state actors in disaster risk management.
- Газрын засаглал (шийдвэр гаргах, хэрэгжүүлэх, шаардлага): Traditional rights to land are still accepted in Chars of Bangladesh .
- ГТМ-ийн талаарх мэдлэг, техникийн дэмжлэг авах боломж: Timely weather forecast allows communities to accordingly time their agricultural operation, especially the sowing operations
- Ажлын багтаамж, хүн хүчний нөөц бололцоо: Higher productivity of land in Chars allow for lower labour engagement in agriculture.

Тухайн Арга барилын хүрээнд нэвтрүүлсэн Технологийг хэрэгжүүлэхэд хүндрэл учруулах нөхцлүүд

- Нийгэм / соёл / шашны хэм хэмжээ, үнэт зүйлс: In earlier phases of the intervention, the cultural norm of not abandoning one's household even in extreme crisis hindered timely access to emergency infrastructure.
- Санхүүгийн нөөц, үйлчилгээний хүртээмж / боломж: Lack of adequate capacities and resources with local government.
- **Ε**γτэц **зохион байгуулалт**: In principle a decentralised disaster management structure is in place but due to operational and financial constraints they are unable to perform their mandated function.
- Талуудыг хамтын ажиллагаа/зохицуулалт: Harmonisation of disaster centred initiatives is a time consuming process and very often does not lead to collaborations that harness existing synergies.
- **Бодлогууд**: Policy enforcement across sectors remains weak in Bangladesh.
- Газрын засаглал (шийдвэр гаргах, хэрэгжүүлэх, шаардлага): Land ownership is complex in Chars given its unstable nature due to high vulnerability to river erosion. Char lands are controlled by the local elites, often residing in the mainland, who use their political influence

to secure govt. collusion/indifference (though char lands officially belong to them) in exercising land ownership and land transactions. Eventually it is the elites who lease and/or rent out land to the char population.

- ГТМ-ийн талаарх мэдлэг, техникийн дэмжлэг авах боломж: River erosion threats strongly disincentivise investment in SLM.
- Зах зээл (материал худалдан авах, бүтээгдэхүүн борлуулах), үнэ: Market forces are yet to develop properly in Chars which are by nature isolated geographical units, accessed only through time consuming and expensive transportation means.
- Ажлын багтаамж, хүн хүчний нөөц бололцоо: Disaster and higher profitability in mainland drives migration leading to labour shortages.

ТАЛУУДЫН ОРОЛЦОО БА ҮҮРЭГ

Арга барилд оролцогч талууд болон тэдгээрийн үүрэг								
Ямар оролцогч талууд / хэрэгжүүлэгч байгууллагууд арга барилд оролцож байсан бэ?	Оролцогч талуудыг тодорхойлно уу	Оролцогч талуудын үүргийг тайлбарлана уу						
олон нийтэд түшиглэсэн байгууллагууд	Village Disaster Management Committee (VDMC)	The VDMC is the key actor to perform disaster risk reduction activities in the communities. The covers supporting the conduct of VCA, conducted by external facilitators, by extending logistic support and securing representative participation of larger community (non-VDMC members) in the VCA process. The VCA helps VDMCs develop their action plans. The operationalisation of the plans is anchored in the VDMC and so is leveraging cooperation and collaboration from local government. The VDMC also acts as first responder and as custodian responsible for operation and maintenance of built emergency and health infrastructure. Assessing community needs, beneficiary selection, contribution collection and financial management of hardware are their other key responsibilities. Contribution collection means mediating and collecting the contribution of users/ beneficiaries and local governments to the costs of the built facilities (plinth raising, WASH, flood shelters, etc.) in pre- agreed proportion. Financial management of hardware refers to VDMCs engaging in all aspects of the construction process of small scale communal and household mitigation options (flood shelters, roads, bridges, household plinth raising, etc.) and shouldering financial management responsibilities related to their construction and subsequent operation and maintenance. This involves managing finances (contribution from users/LGI/project); giving work contract and settlement of payment following work completion.						
Багш/ сурагч/ оюутан	Youth Response Team (YRT) members	YRT has been developed to promote volunteerism. Their main role is to support response and recovery operations during and after disaster. They are especially trained in Search & Rescue. As they are located in the community, YRTs actively engage in early warning dissemination. They act as focal person for monitoring and adjusting the flood markers. They support the Union Parishad in transmitting early warning to communities (as mentioned above) and supporting the evacuation of communities to safe places.						
Хувийн хэвшил	Enterpreneur of Union Digital Center	The lowest level of local government, the Union Parishad (UP), has a Digital Center to render ICT services to communities. These are run by local entrepreneurs. The entrepreneurs are responsible for monitoring flood forecasts on the internet and updating the Union Parishad (UP) and community- based organisations (CBOs) on evolving flood situation. By analysing and interpreting relevant information they play a key role in catalysing the early warning system.						
Орон нутгийн захиргаа	Union Disaster Management Committee (UDMC)	The UDMC disseminates forecasts, warnings, and advisories locally. It also performs a lead role in response and recovery operations.						

Тэргүүлэх байгууллага UDMC

Арга барилын янз бүрийн үе шатанд орон нутгийн газар ашиглагчид / бүлгүүдийг татан оролцуулах



Арга барил хэрэгжүүлэх бүдүүвч

The flow chart explains application of the EWS and clarifies local linkages with national flood forecasting and warning centre (FFWC)



Зохиогч: Tuhin Samaddar

ГТМ-ийн технологи сонгох шийдвэр гаргах явц

Шийдвэр гаргасан этгээд

- Газар ашиглагч дангаараа (өөрийн санаачлага)
- ГТМ-ийн мэргэжилтнүүдийн дэмжлэгтэйгээр, голчлон газар ашиглагчид
- оролцооны зарчмын хэсэг болох бүх холбогдох талууд голдуу ГТМ-ийн мэргэжилтнүүд, газар ашиглагчидтай зөвлөлдсөний үндсэн дээр
 ГТМ-ийн мэргэжилтэн дангаараа
- улс төрчид / удирдагчид

Шийдвэр гаргах үндэслэл нь

- ПТМ-ийн мэдлэгийг баримтжуулалтын үнэлгээ (нотолгоонд суурилсан шийдвэр гаргах)
- 🔽 Судалгааны үр дүн, ололтууд
- 🖊 Хувь хүний туршлага ба санал бодол (баримтжуулаагүй)
- Government policies and mandates

ТЕХНИКИЙН ТУСЛАЛЦАА, ЧАДАВХИ БИЙ БОЛГОХ БОЛОН МЭДЛЭГИЙН МЕНЕЖМЕНТ

Дараах үйл ажиллагаа эсвэл үйлчилгээ нь арга барилын нэг хэсэг болсон

- 🔽 Чадавхи бэхжүүлэх/сургалт
- 🗾 Зөвлөх үйлчилгээ
 - Институцийг бэхжүүлэх (байгууллагын хөгжил)
- Иониторинг ба үнэлгээ
 - Судалгаа

Чадавхи бэхжүүлэх / сургалт

Дараах сонирхогч талуудад

сургалт хийсэн

- Газар ашиглагчид
 хээрийн ажилтан / зөвлөх
 Anser-VDP (Village Defence)
- Party) member

Сургалтын хэлбэр



Хамарсан сэдэв

Several training courses and workshops were organised on disaster preparedness and response:

1. Early Warning System (for UDMC/VDMC/ Anser-VDP/YRT/VCRP/Staff): Disaster context in Bangladesh, techniques to identify water levels against standardised danger levels, determining flood intensity by observing pillars and flags, dissemination strategies for early warning messages among the community, and role of stakeholders to warning message dissemination.

2. Evacuation Plan (for VDMC/YRT/VCRP): Response operation, preparing checklist for response, preparing risk and resource map, information collection and analysis, preparing evacuation route maps, and roles and responsibilities of respective stakeholders in effectuating evacuation plan

3. Response Plan (for UDMC): Importance of response plan, key constituents of preparedness and response, interpretation of Early Warning information from FFWC, creating contingency fund, search and rescue, emergency relief and first aid, identifying safe exit route and transportation, damage assessment, launching control room, involving existing manpower and resources in the community and other organisation, and prepositioning of rescue equipments.

Зөвлөх үйлчилгээ

Зөвлөх үйлчилгээ үзүүлсэн

Газар ашиглагчийн талбай



Институцийг бэхжүүлэх

Институци бэхжисэн / бий

болсон Үгүй

Тийм, бага Тийм, дунд зэрэг Ийм, маш их



Байгууллага, үүрэг, хариуцлага, гишүүд зэргийг тодорхойлно уу.

CBOs/Village Disaster Management Committee (VDMC)- on an average each CBO/VDMC has 17 members. Their roles and responsibilities entail assessments, beneficiary selection, developing and implementing Risk Reduction Action Plans (RRAPs) with special focus on disaster preparedness and response. A key function entails their engagement in Early Warning Systems (EWS) and planning and implementation of emergency and health infrastructure, shelter protection, and creating access infrastructure. Operation and Management of all built assets and infrastructure is their responsibility.

Local Government/UDMC: on average it has a 36 members. Standing orders on disaster of the government defines their roles and responsibilities which covers the entire gamut of functions associated with disaster risk management at the local level. Strengthening preparedness and leading effective response is critical to their mandate.

Дэлгэрэнгүй мэдээлэл

Megaphone, stretcher, Lifejacket, Lifebuoy, Torchlight, Raincoat, Gumboot, Rope and First aid box are some of the equipments that have been given to target communities. Further, the YRTs have received whistle, umbrella and apron for early response operation

Мониторинг ба үнэлгээ

чадавхи бэхжүүлэх / сургалт

Дэмжлэгийн төрөл

Тоног төхөөрөмж

Санхуугийн

1

A joint monitoring team has been formed comprising representative of CBOs, local government and project staff.

САНХҮҮЖИЛТ БОЛОН ХӨНДЛӨНГИЙН МАТЕРИАЛЛАГ ДЭМЖЛЭГ

ГТМ-ийн бүрэлдэхүүн хэсгийн жилийн төсөв ам.доллараар

< 2,000
2,000-10,000
2 10,000-100,000
100,000-1,000,000
> 1,000,000
Precise annual budget: 10384.0

Swiss Red Cross Above mentioned amount is for the Early Warning System Implementation approach only

Газар ашиглагч нарт дараах урамшуулал, үйлчилгээг үзүүлсэн

- Газар ашиглагчдад санхүүгийн / материаллаг дэмжлэг үзүүлсэн Тодорхой хөрөнгө оруулалтанд нөхөн олговор олгох Кредит
- Бусад урамшуулал, хэрэгсэл

Газар ашиглагчдад санхүүгийн болон материаллаг дэмжлэг үзүүлэх

НӨЛӨӨЛЛИЙН ДҮН ШИНЖИЛГЭЭ БА ДҮГНЭЛТ

		Үгүй	Тийм, бага зэрэг	Тийм, зарим	Тийм, их		
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Арга барил нь орон нутгийн газар ашиглагчдыг чадваржуулах, оролцогч талуудын оролцоог сайжруулсан уу? The participation of all local stakeholders, especially women, has improved considerably.	
Apra барил нь нотолгоонд суурилсан шийдвэр гаргах боломж олгосон уу? The decision making especially with regard to effectiveness and quality of approach and technologies has been determined by the evidence on the ground.	7
Арга барил нь ГТМ-ийн технологийг хэрэгжүүлж, хадгалахад газар ашиглагчдад тусласан уу? Since the implementation of technologies and maintenance of built infrastructure has been largely user led, it has improved their capacity to do the same.	
Арга барил нь ГТМ-ийн хэрэгжилтийн санхүүгийн эх үүсвэрийн хүртээмжийг сайжруулах / эргэлтэнд оруулахад чиглэсэн үү? User contribution and govt. contribution was a mandatory component of the project which led to mobilisation of resources that supplemented project resources.	
Энэ арга барил бусад сонирхогч талуудын мэдлэг, чадавхийг сайжруулсан уу? Implementation of well designed capacity building plan cognizant of the needs of diverse stakeholders has improved the knowledge and capacities of relevant stakeholders.	
Apra барил нь оролцогч талуудын хооронд институци, хамтын ажиллагааг бий болгож, бэхжүүлсэн үү? the central element of the approach has been to ensure sustainability of benefits which cannot be attained without strong institutions collaborating around disaster risk management work. Thus, the approach led to improved collaboration between stakeholders and strengthened institutions.	
Энэ арга барил зөрчилдөөнийг багасгасан уу? The approach is based on conflict sensitive programme management. This allowed for pro-active identification of conflicts and tensions followed by measures aimed at their mitigation.	2
Арга барил нь эмзэг бүлгийнхнийг нийгэм, эдийн засгийн хувьд чадавхижуулсан уу? The extreme poor and socially disadvantaged were especially targeted by the disaster preparedness approach	
Арга барил нь жендэрийн тэгш байдлыг сайжруулж, эмэгтэйчүүд, охидыг чадавхжуулсан уу? Though significant improvements are there as women and girls are much more aware about disaster preparedness in general and flood response in particular, there remains room for further improvement.	
Арга барил нь ус, ариун цэврийн байгууламжийн хүртээмжийг сайжруулахад хүргэсэн үү? As part of strengthening preparedness to health hazards, water and sanitation infrastructure set up by the project has greatly improved access to water and sanitation	
Арга барил нь газар ашиглагчид уур амьсгалын өөрчлөлтөд дасан зохицох чадварыг дээшлүүлж, уур амьсгалын өөрчлөлттэй холбоотой гамшгийг бууруулах чадавхийг сайжруулсан уу? Strengthened DRM capacities include improved climate adaptation and capacities to mitigate climate induced disasters.	

Газар ашиглагчид ГТМ хэрэгжүүлэх болсон үндсэн шалтгаан Арга барилын хүрээнд хэрэгжүүлсэн үйл ажиллагааны

үйлдвэрлэл нэмэгдсэн Ашиг нэмэгдсэн (боломж), зардал-үр ашгийн харьцаа сайжирсан Газрын доройтол буурсан Гамшигийн эрсдэл буурсан Ажлын ачаалал бууруулсан төлбөр / татаас дүрэм журам (торгууль) / сахиулах нэр хүнд, нийгмийн дарамт / нийгмийн холбоо Сүлжээ/ бүлэг төсөл/ хөдөлгөөнд гишүүнээр элсүүлэх Байгаль орчны ухамсар зан заншил, ёс суртахуун ГТМ-ийн мэдлэг, туршлага дээшилсэн гоо зүйн сайжруулах

Арга барилын хүрээнд хэрэгжүүлсэн үйл ажиллагааны тогтвортой байдал

Газар ашиглагчид арга барилаар дамжуулан хэрэгжүүлсэн арга хэмжээг тогтвортой үргэлжлүүлж чадах уу (гадны дэмжлэггүйгээр)?



Тодорхойгүй

Union Digital Center is an information hub that exists in the union where people have easy access. The technology is simple and the approach is easy to understand and has already benefited the targeted community. The anchoring of preparedness in general and Early Warning Systems (EWS) in particular in local government and its rolling out in collaboration with communities imparts high probability of sustainability to disaster preparedness measures. During the project cycle, two flood events of significant magnitude have tested the approach and technology and resulted in tangible benefits for the community. At the same time since sustainability considerations are inbuilt in project design and have guided the implementation of the approach and technology, the likelihood of their sustainability is very strong.

ДҮГНЭЛТ, СУРГАМЖ

Давуу тал: газар ашиглагчийн бодлоор

- A trained group of volunteer is available in the community
- Response equipments are in place and ready to use if and when needed

Сул тал/ дутагдал / эрсдэл: газар ашиглагчийн бодлоордаван туулах боломжууд

 Long term maintenance of response equipments UDMC should play custodian's role; local people should contribute towards

- Early Warning System facilitates people's timely access and movement to appropriate emergency infrastructure and protected shelters
- Rapid evacuation, especially for physically challenged, children and elderly people, and cattle
- Crops are saved due to timely action related to sowing and harvesting
- Means of preparedness, such as boat, banana raft, portable cooker, firewood, oral rehydration solution, dry food can be collected beforehand
- Balanced representation of community in governmentt mandated disaster committees
- Coordination/ communication with development actors and local government/union parishad is more forthcoming

Давуу тал: эмхэтгэгч эсвэл бусад мэдээлэл өгсөн хүмүүсийн бодлоор

- Sustainability dimensions have been well considered and applied in adopted approach and technologies
- Strengthened community institutions are in place to address disaster risk Management issues, especially those related preparedness and response mechanisms
- Community and local government interface has been strengthened to devise appropriate disaster Management solutions
- Decisions on preparedness approach and attendant technologies are taken collectively by stakeholders
- A replicable model of early warning systems, emergency and access infrastructure has been established

СУУРЬ МЭДЭЭЛЭЛҮҮД

Эмхэтгэгч TUHIN SAMADDAR **Хянан тохиолдуулагчид** Anton Jöhr

Баримтжуулсан огноо: 20 10-р сар 2016

Сүүлийн шинэчлэл: 30 10-р сар 2017

Хянагч

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WOCAT мэдээллийн сан дахь бүрэн тодорхойлолт

https://qcat.wocat.net/mn/wocat/approaches/view/approaches_649/

Холбогдох ГТМ мэдээлэл

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Баримтжуулалтыг зохион байгуулсан

Байгууллага

• Swiss Red Cross (Swiss Red Cross) - Швейцар

Төсөл

 Book project: where people and their land are safer - A Compendium of Good Practices in Disaster Risk Reduction (DRR) (where people and their land are safer)

Гол сурвалж баримт сэлт

• Three VCA Reports published by UDMC with support of DRRWASH project: Bangladesh Red Crescent Society

Холбогдох мэдээллийн интернет холбоос

• Flood Forecasting & Warning Centre (FFWC), Bangladesh Water Development Board (BWDB), SOD: http://www.ffwc.gov.bd/#, http://ddm.portal.gov.bd/sites/default/files/files/ddm.portal.gov.bd/page/a3f4cc27_ff7d_4c2b_a1b0_166fe6bef73b/udmc.pdf

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recurrent cost

Сул тал/ дутагдал / эрсдэл: эмхэтгэгч эсвэл бусад мэдээлэл өгсөн хүмүүсийн бодлоордаван туулах боломжууд

 Replicability of the model might be difficult due to lack of funds and functionaries available with local government Support local government in negotiating more resources from higher levels of governance and Administration; build capacity of local government to utilise resources efficiently and effectively