

Submission for Sasakawa Award by Heritage Foundation of Pakistan

ESSAY by Nominee

PART I

Results of Initiatives, Levels of Outreach, Challenges & Solution

The *Build Back Safer with Vernacular Methodologies* program has encouraged household participation in building safe one-room shelter, using low cost sustainable materials consisting of mud, lime and bamboo, that minimize ecological footprint, along with technical capacity building to build DRR-compliant structures. The program has resulted in providing safe shelter to over 38,000 households, spread over 1,700 villages in Sindh. During the period not a single tree has been felled due to the use of bamboo, saving forest reserves. The strong bamboo roof provides refuge during floods to families and household goods. The use of locally fabricated materials has strengthened local economy.

The Women-centred CBDRM program has developed community resilience by training women to lead disaster preparedness effort. By focusing on developing capabilities of women, who are the worst sufferers during a disaster, they have been readied to deal with hazards. By providing training in no-cost DRR-compliant earthen constructions, village mapping and use of early warning systems, and emphasis on alternative means of income generation, the community is being empowered to take action in the face of a disaster.

The one room shelter program has been achieved through the following:

- IOM as the executing agency
- HF as technical advisory and training partner
- IOM's Implementing Partners as trainers
- HF's Monitoring and Mentoring Teams for evaluating field work
- Selected households according to IOM's set criteria as village beneficiaries.

Due to the use of unfired clay, utilized over generations in Pakistan's rural areas, both men and women are able to engage in shelter construction. IOM's Implementing Partners (IPs), act as trainers, who themselves have been trained by HF. They conduct village workshops in correct ways of building, and the work in the field is evaluated by HF's monitoring and mentoring teams. The rigorous training methodology and improved technical capability of households leads to delivery according to details and specifications.

The IOM-HF Women-centred CBDRM program, has been conducted in selected villages. Training has been provided to large assemblies of women in each village in a solar operated DRR-Centre in each village, where they are able to congregate and discuss issues related to disaster preparedness as well as their own well being.

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info@heritagefoundationpak.org

www.heritagefoundationpak.org

During the 2014 rains, DRR Centre Committees were able to mobilize the community for disaster preparedness.

Being an industrially less developed country (LDC), Pakistan suffers from several drawbacks which include lack of transparency in governance, weak institutional setups, high levels of illiteracy particularly among women, lack of maternal healthcare, high mortality rates of infants, high levels of water borne diseases, a stronghold of landlords on agricultural tenants, non-functioning government schools, child labour in the fields (encouraged by both landlords and families), and lack of emphasis on women's development.

The above drawbacks provide an opportunity to mobilize communities in order for them to rise above adversity. While macro-level arrangements for flood protection can only be provided by governments, in our experience, it is possible to provide guidance to prepare communities to at least avoid displacement. Through building technically improved shelters, no-cost, low-cost methods for creation of a hygienic environment, growing vegetables on roof gardens, and by creating local Barefoot Village Entrepreneurs for income generation through green skills, enabling them to provide low-cost services to the community itself.

The solution being proposed is based on the work that has been carried which has shown remarkable results:

- Emphasis on building zero carbon footprint structures using mud, lime and bamboo; building one room DRR-compliant shelter through participatory action and by improving their technical capability so that further structures could be built by themselves.
- Due to extreme vulnerability of almost all rural communities, adoption of holistic and integrated approach that would improve strength and resilience of communities.
- Placing women centre-stage for disaster preparedness and green skill trainings.

Based on the past experience, HF believes that by emphasizing on a participatory approach through the use of sustainable materials village communities can achieve Lari-First Level of Resilience (L-1LoR), which would avoid their displacement. Through technical guidance, supply of materials, and community participation, the following can be achieved within 8 months/village at a cost of US\$20,000 (Twenty thousand dollars):

- a. One DRR-Centre to be run by a women committee.
- b. DRR-compliant one room shelters for all households
- c. 50 Eco-toilets for households clusters.
- d. 40 raised earthen platforms for hand pumps and banana circles for gray water treatment.
- e. Self-built fuel-efficient smokeless stoves on raised earthen platform for hygiene and safety.

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- f. Vegetable garden on Eco-toilet's strong roofs.
- g. Raised-bed farming to avoid damage through floods.
- h. Animal enclosures to separate livestock for hygiene, and for income generation by composting waste.
- i. Plantation of indigenous trees and rainwater harvesting.
- j. Community run healthcare facility (built at low cost with sustainable materials).
- k. 100% school-age children placed in a learning environment.
- l. Training in green skills imparted to women for income generation. (799 words).

Part II

Financial Implication

IOM-HF program for building over 38,000 one-room shelters @ \$300 uses sustainable materials and participatory approach: US\$ 11,600,000.

1.0 Funding from IOM and ILO

For IOM ORS program for research, prototypes,
training material, monitoring & mentoring (2012-2014) US\$ 150,000

For IOM-HF program for Women-centred CBDRM,
in 7 villages comprising 1400 households
including construction of solar powered DRR centres) US\$ 80,000

For ILO green skills training (2014) in 3 villages US\$ 27,000

2.0 Cost of Setting up DRR Training Infrastructure

DRR-compliant methodologies and adoption of green skills
through other funding sources:

- a. The first Eco-Village in Lower Sindh (since 2011),
trainings in methodologies for disaster
risk mitigation are provided to national and
international CSOs, architects, engineers, artisans,
and community members particularly women. US\$ 100,000
- b. 3-acre DRR Theme Park in Upper Sindh (2014).
Designed as a training park where activities
related to disaster risk mitigation are provided.
The trainings have so far consisted of children's
Hand washing, making fuel efficient stoves and
strong shelter construction. Demonstration
units provide an understanding of DRR-compliant
low cost sustainable construction. The park
brings entire concept of relevant DRR-approaches
into the mainstream. US\$ 60,000

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3.0 Funding through International Awards

- a. *Islamic Development Bank Award* (2013)
provides startup funds to women Village Barefoot
Entrepreneurs (BVEs). US\$ 100,000
- b. *Emirates Airlines Greener Tomorrow Award* (2014)
has transformed 80-households village in
6 months to withstand next floods through trainings
and guidance. US\$ 25,000

Sasakawa Award

HF intends to use the award for making further investment into making communities self-reliant. HF has 6 villages as Core Villages where trainings on disaster preparedness and green skills have been conducted. The pilot, comprising Core Village's BVEs who are marketing their DRR-compliant products into neighbouring Satellite Villages, has proved successful. This methodology, which enables communities to generate income through DRR-compliant components that relate to village conditions, can be spread on a large-scale with very little investment.

The funding will be utilized in order to develop systems and procedures to spread the understanding regarding disaster preparedness and the lessons of self-reliance, through the use of technology. The use of tablets will be spread among village trainers along with simultaneous satellite beaming of trainings in green skills and disaster risk management. The award will contribute to developing systems for skill training and monitoring by BVEs, village trainers and households themselves along with monitoring systems through technical innovations. (399 words).

(Please see annexures for publications and international media coverage)

ANNEXURE

Documents & Videos Links

Published Documents by Heritage Foundation of Pakistan

Disaster Preparedness Manual, 2013

<https://www.dropbox.com/s/1iek4jnutwc1sm/BBSVM%20-%20DRR%20Driven%20Post%20Flood%20Rehabilitation%20in%20Sindh.pdf?dl=0>

BBSVM - DRR Driven Post Flood Rehabilitation in Sindh, 2011

<https://www.dropbox.com/s/1iek4jnutwc1sm/BBSVM%20-%20DRR%20Driven%20Post%20Flood%20Rehabilitation%20in%20Sindh.pdf?dl=0>

Green KaravanGhar and Beyond for Disaster Risk Reduction, 2011

<https://www.dropbox.com/s/jgpnxx0qda6c5ps/Green%20KaravanGhar%20and%20Beyond%20for%20Disaster%20Risk%20Reduction-lowres.pdf?dl=0>

Green KaravanGhar Construction Manual, 2010

<https://www.dropbox.com/s/n7iki073bnsfqkh/Green%20KaravanGhar%20Construction%20Manual.pdf?dl=0>

International Publications

Building Back Stronger - IOM's One Room Shelter Programme for 2011 Pakistan Floods, 2014

<http://www.iom.int/files/live/sites/iom/files/pbn/docs/ORS-Building-Back-Stronger-Lowres.pdf>

Shelter Projects 2011-2012

<https://www.dropbox.com/s/0g4g3ad8suhecpj/ShelterProjects2011-2012-lores-EN.pdf?dl=0>

Article in Le Monde, French newspaper, 2014

http://www.lemonde.fr/arts/article/2014/10/09/l-unesco-mise-sur-la-culture-pour-le-developpement-durable_4503797_1655012.html

Videos

Al Jazeera's Rebel Architecture series. Yasmeen Lari, 2014

<http://www.aljazeera.com/programmes/rebelarchitecture/2014/08/yasmeen-lari-road-self-reliance-20148511850548381.html>

Emirates Greener Tomorrow Initiative, 2014

<http://www.emirates.com/english/environment/greener-tomorrow/heritage-foundation.aspx>

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