



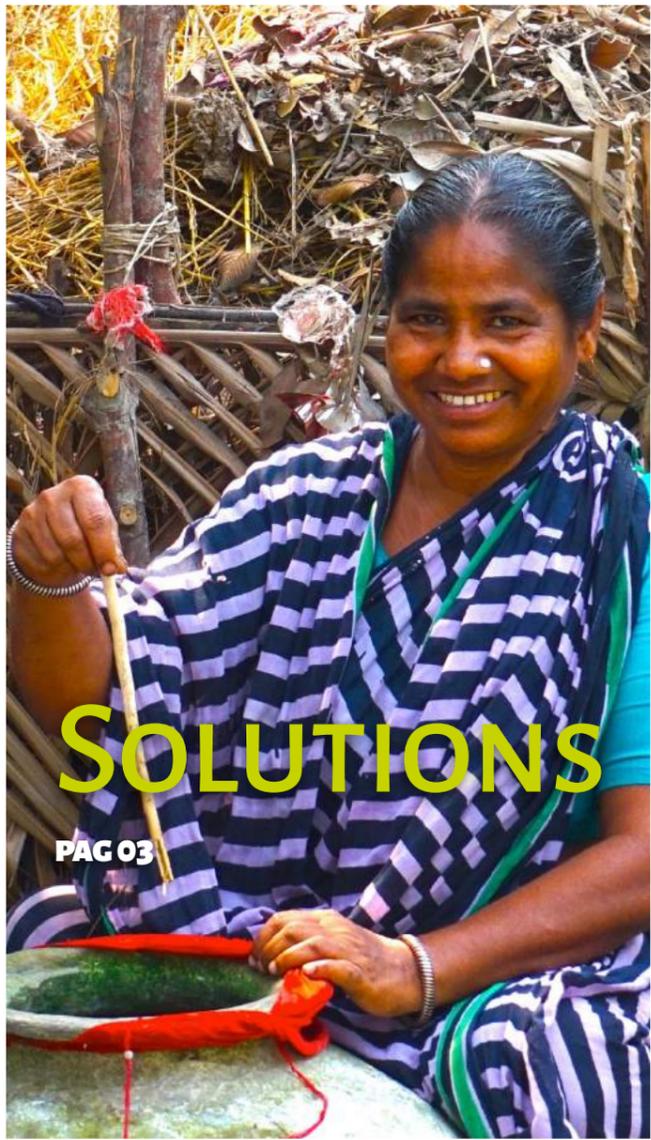
CONTEXT

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CASE STUDY 02

Bangladesh



**NAME:** Building Capacity & Empowering Communities in Khulna & Bagerhat Districts, Southern Bangladesh, towards Sustainable Agriculture, Aquaculture Development and Climate Change Adaptation Interventions

**PERIOD:** 1 June 2013 to 31 March 2017

**PARTNERS:** Bangladesh Association for Sustainable Development, Gaia Education, CIFAL Scotland

**FUNDED:** Scottish Government



## CONTEXT:

Climate vulnerable costal districts  
Cyclones, Tidal Wave, Extreme Flooding  
Agricultural land is affected by salinity  
Low organic matter content in the soils



**BANGLADESH IS ONE OF THE MOST** climate vulnerable countries in the world. The low-lying coastal districts of Khulna and Bagerhat are particularly vulnerable. Cyclones, tidal surge, and extreme flooding have devastated agriculture and food production, increasing mortality rates and destroying the livelihoods of many communities. More than 23% of the families in the region suffer from a shortage of food, with approximately 11% of community

members unable to eat two meals a day (World Food Programme, 2007). In this region over 50% of agricultural land is affected by salinity caused by tidal flooding during the wet season and upward movement of saline ground water during the dry season. With very low organic matter content in the soils, communities struggle to get the yields necessary for their food security and livelihoods.



**IN 2013 BANGLADESH ASSOCIATION OF SUSTAINABLE DEVELOPMENT (BASD)**, Gaia Education and CIFAL Scotland launched a four year project **Building Capacity and Empowering Communities** funded by the Scottish Government to improve sustainable food security and livelihoods of 42 vulnerable

communities of Southern Bangladesh. This project-based learning is building the capacity of community leaders to manage sustainable village development, horticulture and organic vegetable production, and canal fisheries projects. In addition, villagers are learning the skills necessary to build climate change-adapted homes across the region utilising natural building techniques. From the start, the project adopted a holistic approach to poverty reduction while promoting a paradigm shift in food production and disaster management: from conventional relief-and-

response practices to an integrated and regenerative risk reduction culture. Supporting this approach has been the introduction of eco-village and permaculture design practices, which have made significant progress toward the realisation of regenerative communities embedded in their bio-regions.

## APPROACH:

Holistic approach to poverty reduction from conventional relief-and-response practices to an integrated and regenerative risk reduction culture



**SOLUTIONS:**

First organic-shop in Banishanta market with excess produce  
Managed by Self-Help Groups



**SOLUTIONS:**

mulching, herbal pesticides, raised-bed Participation in natural resource management;  
**9 community** organic gardens,  
**6 vermiculture** and **6 horticulture** sites, plus **6 canal fisheries**

**OVER THREE YEARS**, 140 community members from 42 communities have participated in a series of Design for Sustainable Settlements, Permaculture, and Climate Change Intervention courses. Curricula and learning outcomes were developed by national and regional experts, permaculture practitioners and local growers to effectively respond to an environment prone to adverse climate change. Villagers acquired practical skills in composting, vermiculture, mulching, herbal pesticides, and raised-bed cultivation, resulting in significant improvement in the productivity of the salinated soil. Brinjal, sweet pumpkin, gourd, okra, radish, tomato, cabbage, spinach, red and green leaves, chilli, potato, bean, korola, jinge and many other varieties have diversified their diet with direct impact on their health, well-being and self-esteem.

**FURTHERMORE**, the project strengthened community participation in natural resource management with a total of 27 community-led, small income generation projects. Nine community organic gardens, six vermiculture and six

horticulture sites, plus six canal fisheries have demonstrated the practical application of the lessons learnt in the heart of their communities. More than 75% of participants involved in small business project were women who have increased their family income and emerged as leaders in the battle against the effects of climate change. These same women have opened the first organic shop in Banishanta market, where they are selling their surplus produce and enriching their livelihoods.

**COMMUNITY MEMBERS** were convinced that the robustness of plants and the high productivity of the nurseries are a direct result of the natural techniques of vermicomposting, vegetative and liquid composting, and mulching on saline tolerant raised beds. With the learning taking place in their gardens and compounds through hands-on practical exposure, participating villagers have gradually assumed the role of educators to the wider community in spreading the techniques and sharing the results of their productive yields. Inspired by these trained change agents, both directly and indirectly, women and men of different ethnic, cultural, and religious backgrounds are now engaged in similar horticultural and small income generation projects achieving remarkable success in terms of increased food production, household income, and community vitality.

