

Living with disasters, coping with technologies

An Innovation for millions through transforming Agriculture to an Agribusiness System for Food Security and Nutrition for Poor in Bangladesh

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Pumpkin Plus: A Field Innovation Lab for Riverbed Farming System, Bangladesh

Abstract

Bangladesh is a deltaic country located within the floodplains of the three great rivers the Ganges, Brahmaputra and Meghna. These rivers drain a total catchment area of 1.72 million Sq. Km of which only 7% lies within the country, and has an estimated 2709 Sq.Km of newly accreted transitional lands, locally known as charland along the basin of these river system in the North-West of the country. These charlands in the river systems are composed of coarse sands. The climate smart innovation and agriculture technique “Sandbar Cropping” (<https://youtu.be/xhBj93pN2-s>) helping thousands of the poor farmers, who are displaced due to recurrent river erosion, produce food crops such as pumpkins, squash and other high value crops on these ‘transitional barren sandbars’. Accessing to these barren sandbars provides alternative livelihood opportunities, food and nutritional security for thousands of landless families and millions of consumers in the food chain, supported by foreign export.

The project was initiated to assist people whose villages and farms have been lost through erosion, who are forced to live illegally on flood protection embankments. It aims to assist these displaced people through offering them improved livelihoods through managing barren transitional sandbar.

The project has successfully demonstrated that the growing of pumpkins in small compost pits dug into the sand is both possible and profitable. Since 2005, a total of 22131 farmers (60% women) have produced 128,000 MT of pumpkins from 4156.39 ha. sandy transitional riverbeds and have saved 1064 m L water by adopting low cost irrigation technology. In 2019-2020 season a total of 1140 farmers, of which 60% women farmers under the company has successfully harvested 25,000 MT of pumpkin in April 25th 2020. Their product is hugely serving the needs of millions food in secured families affected by the recent pandemic. Bangladesh Army and number of relief based organisations are distributing pumpkin as food relief all over the country, including emergency export to the Middle East on formal request to the Ministry of Foreign Affairs.

The project monitors a representative sample of household's incomes and calculates cost benefit ratios on an average 1:5, with a wide range of socio-economic impacts and addressing at least 13 out of 17 SDG Goals directly.

The evaluation summarised that 95% of extreme poor has graduated from the extreme poverty, where income raised from \$1.25 to \$ 3.50 per day and has escaped from chronic poverty, food insecurity, hunger and malnourishment by adopting climate smart innovative solutions. <https://youtu.be/wOF9M5hFQtM> Additionally, established a village centered market for nationwide supply and foreign export to around 5-7 countries such as Malaysia, India, Saudi Arab, UAE and others by promoting women and youth led agribusiness system by over 6000 commercial farmers in North-West Bangladesh.



Speaker Biography:

The Innovator Nazmul Chowdhury has completed his Master's Degree on Agricultural Science from Bangladesh Agricultural University. Over 27 years of experience in international agencies. Expert in technology innovation, M&E, multi-sectoral development and humanitarian responses including Rohingya migrants in Cox's Bazar. He was the Strategic Lead of Inclusive Agriculture and DRR at Practical Action. He is currently working as Sr. Adviser of 2030 WRG, The World Bank Group in Bangladesh. A Climate Change activist & has played key role in sensitizing CC issues in global policy forums i.e. The House of Lords, Commons, different parliaments in Asia, Europe, America. He has series of published articles, in journals & websites. His works has highly endorsed by the global leaders and institutions particularly for CC adaptation, food & nutritional security and extreme poverty alleviation. He is the innovator of sandbar cropping, Floating garden and Crops in the Crisis model to benefits millions of landless communities affected by natural disasters and geopolitical crisis zones in Bangladesh.

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