



Tropentag, September 17-19, 2014, Prague, Czech Republic

“Bridging the gap between increasing knowledge and decreasing resources”

## Converting Sand into Gold: The Case of Sand Bar Cropping in Bangladesh

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### Abstract

In a land scarce country like Bangladesh, the increasing population pressure causes rapid decline of arable land, which renders average farm size to about half a hectare. Per capita availability of cultivable land is further reduced due to severe land erosion and thick sand deposits caused by annual floods in the big river systems. One such vulnerable and unstable sand bars, popularly called chars, spreads along the two sides of the mighty Brahmaputra and Teesta river system, which leave out about 180,000 hectares of land largely barren during the dry season. The inhabitants in the vicinity of the sand bars are extremely vulnerable to frequent displacement of settlement from one location to another. These 'lands' are mostly newly accreted common property resources, while some are privately owned but can hardly be used for crop production due to sand deposits. The new technology of digging 2–3 feet deep compost pits served with temporary low- cost pump irrigation allows pumpkin seeds to grow from down the pit and then creep up over the sand to produce suitable pumpkins (sweet gourd). The cultivation of pumpkins in some locations of the vast tracts of sand bars, is significantly contributing to household food security, income and employment of family members, especially women. The utilisation of these sand bars demonstrates the development of new production systems under land scarcity pressure.

This paper illustrates the unfavourable landscape, socioeconomic background of the extremely poor pumpkin producers, inputs and technology support for pumpkin production, low-cost technology for creating irrigation water source in sand bar, storage of pumpkins, and development of pumpkins supply chains. The paper does also suggest also potential areas of further collaborative research into sand bar cropping with vegetables and fruits, value addition and agribusiness development.

**Keywords:** Converting sand into gold, low-cost technology, sand bar cropping, women labour