

Floating Gardens in Bangladesh



Photo: Practical Action Bangladesh

Monsoon flooding in Bangladesh is an age-old annual occurrence. Farmers have adapted to the floods, and even welcome them because of the fertile silt they deposit on the fields.

But climate change is making the rains unpredictable, and deforestation and increased glacial melts in the Himalayas is causing the flooding to become more intense. For example, in 2004 two thirds of Bangladesh was literally underwater for several weeks during the monsoon season, causing widespread destruction of crops and fish ponds.

There have been several more widespread floods since then. Even when the floods recede the land remains waterlogged, restricting people's ability to cultivate vegetables to feed themselves and generate an income

One solution to this problem is a floating garden, known as a 'Baira'. Bamboo poles are placed on top of a bed of aquatic weeds (such as water hyacinth), more plants are packed in and the whole is topped with soil, compost and manure. Crops such as leafy vegetables, gourd, tomatoes, aubergine and onions can be grown. The gardens float on flooded land or small ponds and can be used all year round for summer and winter crops, providing families with enough vegetables to eat and sell.

The raft can be reused until it falls apart at which point it can be made into compost for use on new rafts. Commonly, the rafts are around 8m long and 2m wide and 0.6-1m deep. The floating gardens are kept in position by tethering them to poles.

However, the gardens should not be used on areas of water that are affected by tides or currents as they might get damaged; or in salty water as the crops won't grow.