



# Risk diversification through taro (*Colocasia esculenta*) cultivation in areas prone to floods and water logging, Bangladesh

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<b>Sustainable Development Goals</b>	Climate action and life on land

## Summary

The objective of *latiraj kachu* cultivation is to enable small farmers to grow crops even during flooding season on seasonally flooded land, and to enhance diet diversification and food security of households during a period of the year characterized by food scarcity. This practice describes the conditions under which *latiraj kachu* can be cultivated.

## Description

Seasonal floods leave parts of Bangladesh, and especially the northern/central districts, inundated for a number of months. During the flood period, farmers have few choices of what crops to grow, and often lack access to adequate food and nutrition.

However, certain crops, like aroids, have good potential for production in the wet season, since most of them, such as *latiraj kachu* (*pani kachu*), an improved variety of *mukhi kachu* (*Colocasia esculenta*) known as taro, can be grown in the seasonally flooded land and can survive a certain period under water.

Latiraj is a good source of carbohydrate and other nutrients, supplementing a diet that tends to be deficient during this particular period.

The leaves and tubers are edible when cooked. This excellent tropical Taro can grow up to 1.5 m. *Colocasia esculenta* can be easily propagated by dividing the rhizomes.

## 1. Implementation of the Technology

For *latiraj* cultivation farmers must have access to supplementary irrigation facilities. Silty loam and clay loam soils are suitable for *latiraj*. Before sowing the land needs to be tilled three to four times to reduce soil to small particles. Optimum time of sowing for an early crop is October, and seeds must be sown in line at a rate of 38 000 per hectare. The distance between lines should be 36 cm, and between plants within the line it should be 5 cm.

The crop requires adequate fertilizer application at the rate of 25 kg urea per bigha (1 330 m<sup>2</sup>) urea, 18 kg per bigha triple super phosphate (TSP) and 25 kg per bigha of muriate of potash (MoP). Organic manures, preferably cow dung at the rate of 2 500 kg per bigha should be applied at the time of sowing. Basal application of entire TSP and MoP is recommended, while urea should be applied in three splits before 20 to 25 days of planting.



# Climate Change Adaptation and Disaster Risk Reduction

The plants can also be grown indoors all year round, in a pot if preferred. In that case they require plenty of water in the growing season and need to be kept very dry from October to March to prevent rot.

Figure 1. Mukhi kachu



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## 2. Validation of the practice

The taro cultivation was tested in mixed rainfed farming systems in north-western Bangladesh, in the agro-ecological zone of warm humid tropics.

## 3. Agro-ecological zones

- Tropics, warm

## 4. Objectives fulfilled by the project

### 4.1 Resource use efficiency

Since taro can be grown on seasonally flooded land, it allows for improved and more efficient use of land, water and soil. It also provides for an alternative source being highly nutrient concentrated.