

STORING WATER ON FARM AND IMPROVING FOOD SECURITY WITH FIVE PERCENT TECHNOLOGY



This assessment was initiated by the International Water Management Institute (IWMI) with support from the U.K. Department for International Development (DFID) and was implemented by PRADAN in three tribal villages Huchkudih, Tentlo and Tasarbanki in Purulia district, West Bengal.

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Impacts for Farmers

- The technique has helped reduce weather-related risks that affect upland paddy cultivation, which the poor depend on for livelihoods and food security. In many cases farmers can take up vegetable cultivation or fish farming during the dry season.
- PRADAN advocates the application of a complete land treatment package

Regions which can benefit from this innovation

- Areas which experience erratic rainfall and for fields in upper catchments that dry early even during monsoon.
- Areas dependent on rainfed agriculture. Example: Upland paddy cultivation.
- Areas unsuitable for un-bunded, un-terraced lands that have considerable soil depth.

Five percent technology is a risk reducing technique implemented onfarm where a pit representing 5% of the total area of a farmer's land is dug at the most upstream spot of the plot. These pits collect runoff water and store it for use during dry spells. These pits are usually about 1.5 meters deep and water is manually lifted and applied to fields. Five percent is the minimum area for supplying the required irrigation to upland paddy during its critical growth periods immediately after monsoon. Farmers can make bigger or deeper pits depending on land availability and soil type. This technique is promoted by Professional Assistance for Development Action (PRADAN).



consisting of farm pond and field bunds which are constructed using excavated soil, and the plantation of selected tree species, for best results.

- This system improves water availability, minimizes soil erosion and improves land productivity. It is an effective means of harvesting rainwater and runoff for supplemental irrigation of rainfed and summer crops.

