Rain Water Management

Sl.No	Problem Identified	Specific farming situation for which technology is developed	Crop/ Animals etc	Breed/Variety	Specific Technology	Yield
1	Ensuring food and nutritional security at household level	Upland	Agri-horti crops, livestock, fishery and agroforestry	None	Five models developed on micro watershed level	For details, please refer the Technical Bulletin No.46 (2005) published by ICAR (RC) for NEH Region
2	Low storage life of pond	Rainfed and irrigated	Agril./Horti.	HYV	Tarfel lining/Agri.film/LDPE of water harvesting (250 micron) structures	Life of storage increased from 91-230 days. The seepage loss was minimized from 21 to 8 man days
3	Loss/Lack of soil moisture, weed infestation, deterioration, of soil structure, loss of soil temperature	Rainfed/Rabi	Groundnut Tomato	HYV	Polythene mulching (cultural practice)	20-25% increase in yield, reduction of weed by 55-60%, 23.5q/ha of groundnut
4	A hill top, the land is absolutely left fallow almost six to seven months due to severe water scarcity during post rainy season	Hill top	The stored water may be used for growing vegetables or rearing some animals during dry season.	None	Excavation of the kund before onset of monsoon, followed by clay plastering of the inner walls, 3-5 cm thick cushioning with locally and easily available dry pine leaves @ 2-3kg/m^2 on the walls and bottom and laying down of 250 u LDPE black	200 tomato plants and two piglets or 50 poultry birds could be managed with 30,000 lit.water from *Jalkund*

	as most of the rain water goes waste by runoff through terraced land. Farmers remain idle for want of irrigation water. Even for drinking water during off season, they have to come all the way from the hill top ti plain land to collect only three to five buckets of water per family.				agri-film	
5	The Meghalaya known for its high rainfall zone, suffers from severe water scarcity during major parts of the year(Nov.-April). Because of this, fields remain fallow during theses periods, particularly under terrace condition, where scope of growing crops with stored water is limited.	Mid or high altitude terraced situation.	Maize, mustard	None	Maize was sown in June followed by application of *Ambrossia spp,* a weed biomass between rows of standing maize at 20 days before its harvest. Immediately after harvest of maize, its stalk is spread all over the field just above the applied *Ambrossia spp* and kept as such till sowing of mustard. Mustard was sown in Oct. between maize rows by removing maize stalk and put back between mustard rows immediately after sowing and kept till harvest of mustard.	About 5-10 times increase in mustard seed yield.
6	Acute deficiency	None			Jalkund	

	of water in hill tops				• Two pits of size 3 x 2 x 1.5m are sufficient for standing 15000-18000 liter of water • The pits has to be digged and plastered with mud and cushioned with rice straw and pine leaf • Lining with LDPE agri-black film(250µ thickness) • After filling of water, anti-evaporants like thatch grass or neem oil @100 ml/600lt of water or both should be applied to reduce water loss • 600-650 tomato plants can be raised • The estimated cost per liter of stored water in jalkund was Rs.0.14 • Animals like pig, goat, poultry and fish can be reared and crops like	

					cabbage, cauliflower, raddish, tomato can be grown in about in 400m^2 area • Siphon technique is used to apply water.	