

## What can you do if your fish culture season is shortened?

### Planning ahead

Correct selection of the pond location from the outset will reduce the likelihood of ponds drying up later in the year. When choosing a pond site consider carefully the soil type, the water supply quantity and seasonality, and how the risk of theft and flooding can be reduced. If available, check out any soil maps and avoid soils without low clay content which will not hold water.



For sandy loam soils fertilize the pond well to promote natural plankton that will form a benthic layer build-up on the pond bottom, as this will close and seal finer holes in the sandy loam pond bottom structure.

### Shorter season fish culture options

Utilize irrigated rice systems to produce advanced fingerlings that can be stocked into seasonal grow-out ponds immediately there is sufficient rain to fill grow-out ponds.



- In upland areas over-winter fish in grow-out ponds that have water all year around. Stock the over-wintering fish at higher densities than normal and sell the advanced fingerlings produced for stocking into seasonal grow-out ponds, immediately there is sufficient rain to fill grow-out ponds.



- Culture small indigenous fish species (SIS) with market sized fish and six weeks after SIS stocking begin partial harvesting of the SIS using a gill net. Thereafter partially harvest SIS every two weeks.
- Stock SIS species only, in shallow seasonal ponds of 3-4 feet deep and culture for 3-4 months, with again partial harvesting by gill net commencing six weeks after stocking and every two weeks thereafter.
- Consider culture in plastic lined WISH ponds.
- Consider micro-culture systems in water jars, concrete rings, micro-ponds for home consumption with air breathing species in particular like climbing perch (*Anabas testudineus*) and *Clarias* catfish.
- Discuss with the local government authorities if fish culture in cages and pens in irrigation canals and water supply reservoirs is possible.
- Consider installation of improved aeration systems, like Ventori to increase dissolved oxygen levels and fish holding capacity.



- Consider putting solar panels over part of the pond area to reduce evapotranspiration, while providing shade for fish and household power supply.

- Investigate options for selling smaller fish including a bait fish for river fishers, to processors to make into snacks by drying, smoking, salting, etc.

### Options when pond water levels start to decline

If surrounding water tables and pond water levels drop and or ponds begin to dry up, the fish grow-out season is shortened. MYSAP Inland is proposing that direct beneficiary households and NGO's consider:



- If economic, and with no adverse effects on the surrounding water table, fill ponds by siphoning and pumping, if not too costly.



- Partially harvest the pond and sell any market sized fish as soon as possible. Excess fish that cannot be sold fresh can be processed. Grow the remaining fish on longer until the water levels become too low and sell the remainder.

- If a farmer has another nearby pond, then partially harvest the largest fish from your pond which is drying up and siphon the water across or pump (if not too costly) and move the small fish across into the nearby pond for further culture.

- If there is no other pond nearby, harvest and sell any fish that are big enough to market and if the fish are too small to sell at market, sell the fish as advanced fingerlings to other households that have sufficient water in their grow-out ponds.

Contact: inlandmysap@cgiar.org



## MYSAP Inland

### Climate change and options for shortened fish culture seasons



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