



27th March, 1986

COMMENTS ON FISH FARMING

1. Important to have a circulation of water:

- (i) design dam floor on a slope - start with a maximum depth of 0,5 - 0,75m. at inlet to 2,5 - 2,75m. at outlet (if feasible). This will allow more warming to occur at "shallow end" than at deep end and result in increased algae growth and transport of nutrients as well as to encourage fish growth in cooler months. The "deeper" end will also provide a refuge against predators (i.e. birds) and a breeding area.
- (ii) There should be a constant inflow and outflow of water. Preferably the flow in and out should be calculated at the volume of the pond \div 24 hours but this is not absolutely necessary. Also if the inflowing water can comprise the drainage water off an irrigation scheme much energy can be saved as well as any excess fertilizer in the water utilised.
- (iii) a series of smaller ponds is probably better than a few larger ones : maintenance is easier, harvesting is not so difficult and one small inflow/outflow can be used. Something like 20m x 20m is O.K.

2. Ducks should be encouraged as their manure is particularly good for aquatic vegetation and insect life (therefore the fish). Alternatively chicken or pig manure can be added to the ponds periodically.

3. The ponds should be periodically drained (annually?) and the inner walls and floor checked for leaks. Puddle clay and /or wood ash + manure in any cracks to seal them. Where possible (ie. good clay floor) the bed should be ploughed and manured before re-filling. Bream in particular like a rough pond bed.

The embankments should be well grassed, no trees or bushes should be allowed, termites and animal burrows are a great danger and overtopping (ie. keep outlets in good order) must be prevented.

All access pathways along embankments should be well made and no erosion allowed. Fencing the walls is ideal.

4. On bigger structures :

- (i) during construction the building of islands in the basin will assist fish, bird and vegetation establishment.
- (ii) The submerging of old car bodies or similar in the deeper sections of the dam will assist bream and other fish for breeding and security.
- (iii) ploughing and/or ripping the basin floor ^{before} dam filling



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CONTINUATION SHEET

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as well as adding a layer of top soil + manure is also a good idea.

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