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Guidelines for the conversion of mangroves to ponds

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GUIDELINES FOR THE CONVERSION OF MANGROVES TO PONDS

The following general guidelines could be followed in converting mangroves to fishponds:

1. Wherever possible, first consideration should be given to areas which had been reclaimed for some other purpose (e.g., agriculture), but now abandoned or underutilized. It is rational to use such reclaimed areas for pond culture before embarking on further conversion of existing mangrove forest.

2. Should the use of existing mangroves be inevitable, the ponds should be sited on the landward side of the mangroves, and filled by pumping. The seaward portion of the retained mangrove forest will serve as a shelter, nursery, and reproductive site for coastal capture fisheries while also acting as a natural buffer against coastal erosion. This part of the mangrove can also be managed for forestry on sustained yield basis.

3. Where pond installations have to be constructed in the mangrove forest proper, the least productive areas with trees of poor growth or of uneconomical species should be utilized. In this way, the more productive areas are retained for forestry management use.

4. To maintain the ecological balance, large-scale clearing of mangroves adjoining the mouths of river systems is discouraged. Similarly, mangrove islands should not be converted as they are needed for conserving coastal wildlife and fishery resources.

In pond construction, additional care should be taken to reduce further damage or detrimental effects on the adjacent mangrove area. Adequate buffer zones should be retained between the pond edge and the coast or river's edge to prevent erosion and also to act as a windbreaker. There should be little disruption as possible to stream-flow and freshwater runoff so as to retain the integrity and function of the adjacent mangrove system as much as possible. The conversion of large tracts of a highly localized area should be discouraged so as to guard excessive changes in environmental conditions like temperatures and evaporation rates.

Postlarval shrimp fry used for stocking the ponds should be obtained from hatcheries and not from natural environmental. In this way, the overall output of the mangrove system will be maximized. In the meantime it is important that research be stepped up to look into the various aspects of shrimp aquaculture to increase its viability. An emphasis on research into mangrove-aquaculture interaction is also desirable.

Source: "Mangroves & Aquaculture - Striking a Balance" by Tarlochan Singh. Infofish International, September-October 1987.