

Salton Sea is due to the high nutrient level in the water caused by leaching of fertilizers from the surrounding agricultural lands. This effect would also exist in Pakistan as the use of fertilizer increased, giving rise to increased production.

As the ground water level is lowered in the agricultural lands of the Indus Plain, some of the ponds could act as recharge basins for the aquifer, and could provide storage for excess water during high river stages or during high rainfall. Eventually some sealing would be required if the fishery were to be preserved at a high level of production; however, partial sealing over the first fifteen or twenty years would probably occur from natural effects.

In summary, the development of excavated ponds in areas of permeable soils and high water table could increase substantially the animal protein available for human food. These ponds could be developed around existing topographic lows and would take little land out of the agricultural potential. But construction costs would be inordinately high unless the expected productivity could be increased to 600 pounds of fish per acre per year. However, the ponds would yield other real benefits by acting to improve the agriculture of the project areas. Thus, if means can be found for reducing commercial excavation costs, if pond deepening can be completed as a village works project, or if average productivity per acre could be kept sufficiently high, fresh-water fish production from excavated ponds may have considerable potential.

Surface Ponds: In areas of sodium-damaged soils, a variation in pond construction can make fish production a more attractive alternative. In these regions, it may be possible to erect bunds around pond sites rather than having to excavate the entire pond bed. This would have two distinct advantages. First, bunds would require the movement of much less earth, e. g., to excavate completely the bed on an eight-foot pond an acre in size would involve the movement of about 350,000 cubic feet of earth; to erect bunds eight feet high about the perimeters of a grid of adjoining ponds, each an acre in size, would require the movement of about 50,000 cubic feet per acre.⁽¹⁷⁾ This could mean a cost of approximately Rs 700–800 per acre, depending of course on the size of the pond and the number of ponds in the grid.

(17) Assuming a base width of 19 feet and a top width of 3 feet for the bund.