

The development of new ponds would undoubtedly be supplementary and would not displace agriculture to any large extent, since suitable pond sites are usually unproductive for crops.⁽¹⁵⁾ With a yield of 300 to 1000 pounds of fish per acre, a one-acre pond could supply 5 grams of animal proteins per day for ten to thirty-five people.

In analyzing the potential for constructing ponds to increase inland fish production, two different types of ponds can be evaluated. In areas of permeable soils and high water table, excavated ponds of the type shown in Figure 6.1 would be the normal method of construction. These ponds would be built around topographic lows and would be excavated below water-table level.

In areas of impermeable soils, such as those damage by sodium, it may be possible to develop "surface ponds" through the use of bunds. This method of construction is illustrated in Figure 6.2.

Since the purpose, expected life, and benefit-cost ratio are different for the two types of ponds, it is useful to examine each separately.

Excavated Ponds: The depths of excavated ponds in West Pakistan should be in excess of eight feet in order to control aquatic plants. Hence, the construction of a new pond of this type would require the moving of about 13,000 cubic yards of earth per acre. It is by no means clear, however, what proportion of this removal would be necessary in practice. That is, only a few ponds would be constructed *de novo*, and most would consist of improvements or deepening of existing abandoned canals, shallow bheels, ponds, salt pans and swamps. The earth removal, therefore, could be expected to average less than 10,000 cubic yards per acre. The cost of this removal would depend on the methods required and used, but it would be at least Rs 5000 per acre.⁽¹⁶⁾

(15) Where an extensive low-lying area is seasonally flooded, a pond occupying only a small part of this area offers refuge for the fish during low water, and potentially large yield. Much of East Pakistan's fishery is conducted in this way, with 21,550,000 acres underwater in the monsoon season and 950,000 acres of permanent waters.

(16) Early public-works projects in East Pakistan show costs of Rs 14 per 1000 cubic feet of earth moved. See: Pakistan Academy for Village Development Report on a Rural Public Works Program, June 1962, page 6.