

The second advantage from bund-type construction would be that the land underlying the pond areas would be reclaimed. Sodium-affected land can be reclaimed, i.e., made permeable, by extended periods of water saturation. Surface ponds would have exactly this effect. After the underlying soils become permeable (making land unsuitable for ponds), the area could be returned to crop production.

An analysis of the economic worth of surface ponds is complicated by several factors. The expected life of these ponds varies with the extent of sodium damage, though the exact relationship is unknown at present. For example, it may take 3–5 years of ponding before moderate damage can be corrected. In areas of more severe damage, the period of time may be 10 years.

If a surface pond lasts 5 years, the discounted benefits from fish production would be on the order of Rs 630 per acre.⁽¹⁸⁾ This would not cover the cost of bund construction plus the cost of water to fill the ponds, though there is the substantial added benefit of having the newly reclaimed land. If, on the other hand, the surface pond's life is 10 years, the discounted benefits would be greater than the cost of bund construction.

Hence, on those sodium-damaged soils where water can be supplied cheaply from pumped wells, surface ponds could have an important dual role. Phrased in different terms, fish culture in surface ponds may be a way of reclaiming severely sodium-damaged land at little or no social cost.

Other Diversification Alternatives

In addition to the livestock, poultry and fish enterprises previously described, brief mention should be made of other diversification alternatives.

(18) This figure assumes that there is little time lag in stocking the ponds, or in bringing fish yield up to "average" production. The calculation also assumes a yield of 300 pounds per acre, a price of Rs 0.5 per pound, and a discount rate of 6 percent.