concentration were reduced to 0.05 percent or less.(3) It is evident that eliminating the salt would induce an increase of about 18 percent in the gross value of crop output, worth about Rs. 3 crore.

With more adequate water supplies and vigorous agricultural administration, the percentage of culturable land cropped in our illustrative million acre tract should rise substantially above its current level of 80 percent, and the intensity of cultivation of the cropped acreage should increase above its current 118 percent. For example, if 90 percent of the culturable land were sown and the intensity of cultivation were raised to 150 percent, the net cultivated area would be 824 thousand acres. The sown area would be 1,240 thousand acres, an increase of 380 thousand acres over the current practice.

The average value produced per gross sown acre with full irrigation according to Table 5.6 is Rs. 186. By taking advantage of the abundant tubewell water, the additional 380 thousand acres could be made to produce a somewhat higher value per acre by being planted to more valuable crops, as shown in Table 5.11. Thus the total gross value of crops could be raised to Rs. 23.1 crore (Table 5.10). This could be raised a further 18 percent to allow for desalination, for a total of Rs. 27.4 crore. In summary, the application of the tubewell water to desalination and the extension of the gross area sown could increase the value of crop output in a million acre tract by Rs. 12.2 crore per year. Increasing the depth of irrigation on currently cultivated land in its current condition increased the gross value of crop output by about Rs. 0.8 crore. Altogether, then, we foresee a contribution of water (made effective by more vigorous management) amounting to Rs. 13 crore per year for the additional value of crops in our illustrative project area. With present canal supplies of 1.03 million acre feet, the total quantity of tubewell water used on the fields would be 1.16 million acre feet and the average annual depth of irrigation would be 32 inches.

By comparison with the increase in value of crops, the cost of the additional water is small. As shown in Chapter 7, we estimate that tubewell water in the Former Punjab and Former Bahawalpur should cost on the average about Rs. 19 per acre foot. This figure takes into account capital and operating costs of wells and appurtenances in areas of both fresh and salty underground water, as well as costs of drainage for return flows and flood protection, wells and conveyance channels for exporting salt water, and necessary additions to

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(3) In deriving column (2) of the table allowance was made for the tendency to grow relatively salt tolerant crops on moderately contaminated soils. After decontamination these crops would be replaced, at least partially, by economically more valuable ones. No allowance has been made for the increase in value resulting from this revision of cropping patterns.