

CHAPTER 5

ECONOMIC APPRAISAL OF THE AGRICULTURAL MODERNIZATION PLAN

In the preceding chapter we set forth a comprehensive and costly plan for increasing the productivity of agriculture in West Pakistan. In our opinion this plan is not only feasible technically but holds forth the promise of increases in the output of foods and fibers that will amply justify the costs. The grounds for this belief are explored in this and the following chapters. In the present chapter the agricultural modernization plan is examined from the standpoint of agricultural economics. The hydrologic aspects of the plan will be explored in Chapter 7.

The agricultural problems are quite different in the two major agricultural regions of West Pakistan, the Former Punjab and Former Sind. We have examined them separately, and by quite different methods. The analysis of the prospects in Former Sind rests heavily on the excellent reports prepared by Hunting Technical Services; the analysis of the Former Punjab draws on a variety of official government reports and documents. However, we accept full responsibility for the analyses and conclusions here presented.

Prospect for the Former Punjab

Benefits from Tubewell Water

Four aspects of water supply are important to the irrigator: (1) its average quantity, (2) its regularity and reliability from year to year, (3) its timing in relation to the growth-cycle of his crops, (4) its chemical and biological qualities. We shall consider each of these as they are at present and as they will be affected by the introduction of tubewell water supplies.

The quantity of water available to Punjabi farmers has always been meager. In an average year their crops receive, from all sources, rather less than two feet of water in Kharif and less than a foot-and-a-half in Rabi. These figures contrast with irrigation deltas ranging from four to six feet prevalent in the arid farming regions of the United States and elsewhere.

The amount of water varies substantially from year to year in response mostly to the intensity of the monsoons, but also to some extent in response to variations in local rains. To cite a fairly extreme example, the deltas supplied by the Upper Chenab Canal in the Rabi of 1954-55 were nearly four times as great as those of the preceding Rabi and 60 percent greater than those of the following year. In general, while disastrous droughts seem to be very exceptional, the farmer must count on wide variations in the amount of water available to him from year to year.