

and processing facilities in Khairpur, as in the rest of West Pakistan, is a major factor in keeping the value of production for the area far below its potential. The solution emphasizes the possible gain from an increased commercialization of agriculture—even given present levels of technology and resource supplies

Because of the uncertainties inherent in producing crops for market (rather than for home-consumption needs), farmers are not likely to reorganize their production plans completely in a few years. However, farmers of the area have shown an ability to take advantage of economic opportunities when they have been given the opportunity to do so.<sup>(9)</sup> Hence, the development of markets and marketing facilities must be an integral part of any comprehensive program designed to improve West Pakistan's agriculture.

While the lack of marketing and processing facilities is a major reason why the present value of output from Khairpur West is less than it might be, it is of course not the only reason. For example, the presence of salinity and waterlogging often dictates that certain crops be grown which otherwise would not be produced. However, the comprehensive plan detailed in this report should help to solve this and other agricultural problems. Hence, the 30 to 50 percent increases in value shown by the programming models of this section are reasonable estimates of the potential gain possible from the reallocation of resources in Khairpur. This gain is possible with existing land and water supplies, and with existing technology.

A second important implication of Model IA involves the total availability and total use of irrigation water in Khairpur. On first inspection, there appears to be only a moderate "scarcity" of water for the region. There is an annual supply of nearly 750,000 acre feet, which, for the 258,900 acres, means a delta of about three feet. However, the annual evapotranspiration is over five feet, and complete double cropping plus leaching for salinity control would require between four and five feet of irrigation water per acre. Moreover, the unequal distribution of water throughout the year causes water to be a very restricting factor for crop production. The shortage in January, that occurs in part because of canal closure, is particularly serious. May is another month in which water is very limiting. For example, computations

---

(9) See in this connection: Falcon, W. P., "Farmer Response to Price in a Subsistence Economy: The Case of West Pakistan." American Economic Review, May 1964, (forthcoming).