2. Water shortage. We estimate that in the future only 138 million acre feet annually will be available to West Pakistan from the rivers of the Indus Plain. Because of the seasonal nature of the rivers and the shortage of surface storage, nearly half the river water flows to the sea unused during a short two months of summer, and a large fraction of the remainder is lost from the irrigation canals before it reaches the farmers' fields. Less than 2 feet per acre is available for the presently-irrigated land.

3. System of land holding. Many of the farmers are share-cropping tenants, and have little incentive to increase production. Nearly all of them struggle with small and widely-separated plots that multiply the difficulties of efficient use of irrigation and farm animals.

4. Salinity and water logging. The fertility of several million cultivated acres, amounting to perhaps 20 percent of the sown area, has been impaired, and in some cases destroyed, by the rise of the water table and the accumulation of salt in the soil.

5. Primitive methods of cultivation. In West Pakistan we have the wasteful paradox of a great and modern irrigation system pouring its waters onto lands cultivated as they were in the days of Abraham, Isaac, and Jacob.

Any of these difficulties would hold agricultural productivity down; co-existing, they confront the farmers of Pakistan with overwhelming problems. The first four have been discussed in previous sections. Something more must now be said about the fifth.

In West Pakistan the land is plowed by a wooden plow of ancient design with a tiny steel tip, pulled by a pair of bullocks enfeebled by undernourishment. Unselected seeds are sown broadcast. Perhaps the best statistical indicator of the state of agricultural practices is the extent of fertilization and the use of chemicals for controlling insects and other pests. Table 1.20 shows that such aids to agriculture are comparatively little used in Pakistan; Egypt uses a hundred times more fertilizer per acre than does Pakistan; Japan more than two hundred times as much. Table 2.4.1 gives some of the details underlying Table 1.20; it shows that of all the major crops on which West Pakistan depends, fertilizers are used to a significant extent only for sugarcane.