

national policy of urban-based industrial exports and rural neglect, was rebuilding his rural base. Rice was a political hallmark of rural success.

Rice self-sufficiency was not a product of the new varieties alone. In place was an extensive irrigation system, an effective credit, procurement and pricing mechanism, improved rural transportation transforming local and regional markets into a national one, and a vigorous "guidance" system (extension service) that reached to the most remote areas. ^{1/} The story of the growth of rice production is one of both new seed strains generated by adaptive agricultural research coordinated with a guidance network and a farmer training program that reached almost every farm household and that markedly improved yields of even the traditional varieties of rice. How this change occurred is the subject of this report. The AID-supported agricultural research was designed to assist this growth, but the questions must be asked: how great was its contribution, and could a differently designed project or one operating in a less stringent political, and thus administrative, environment have prevented the failure of 1980?

II. THE PROJECT

The costs of the halting progress of Korean development in the 1950s and its acceleration in the 1960s were borne by the Korean farmer. For much of this period, the costs of production of both of the staples of the Korean diet, rice and barley, were above the government purchase prices. Korean agriculture was stifled by few incentives to produce beyond farmer needs. It could be characterized as a sophisticated but repressed sector that in some areas bordered on subsistence. Although infrastructure (such as irrigation) and adaptive research had begun under Japanese colonial rule, and even had a Korean guidance and credit system been in place, poor internal transportation and the disincentive of large amounts of PL 480 grain effectively retarded government interest in adjusting upward the rice prices. The potential political power of the urban consumer was greater than that of the rural population. In 1971, Korea was 82.5 percent and 91.8 percent self-sufficient in rice and barley respectively, and it only produced 10.7 percent of its wheat consumption. In 1971, rural household income was \$1,150, less than \$200 per capita.

The election of 1971, which dramatically demonstrated the erosion of government support in rural areas and a hardening of PL 480 terms,

^{1/} See Appendix G, "Research and Extension: The Integration of Inquiry and Guidance," by David I. Steinberg; and Korea Irrigation, AID Project Impact Evaluation No. 12, 1980.