

- B. Too great an emphasis on achievement of targets and too strong a command structure can lead to indiscriminate concentration on shorter term results.

This can, as in the Korean case, lead to discounting the long-term effects, such as pollution, too rapid dissemination of new varieties, or other major problems. Attempting indiscriminately to attain unrealistic targets can lead to inappropriate use of personnel and resources. It can result in manipulation of statistics. Thus the relationship between placing priority on agriculture and its adaptive research program must be carefully balanced with its longer range implications.

- C. Agricultural pricing and procurement policies must provide sufficient motivation to the farmers for the incorporation of experimental research results onto farmers' fields.

A successful research and experimental program will not succeed if national pricing and procurement policies discourage farmers from reaping the benefits of higher yields or improved strains. The Korean experience has shown that even traditional farmers are often economically rational and are willing to adopt new technologies if they are assured of opportunities for increased incomes while minimizing risks.

- D. An agricultural research program can only be effective if it is continuous.

Adaptive research requires a continuous testing, breeding and training program, without which short-term gains may dissolve. There are no single, one-shot, solutions to agricultural research, no matter how successful any single intervention may be.

- E. There must be administrative integration of agricultural research and extension.

Separate administrative structures, even within the same ministry, will likely result in poor coordination between research and extension, thus obviating the usefulness of the project. The Korea case demonstrates the need for integration both at the top of the command structure and in rural areas.

- F. Agricultural research, extension and agricultural education should be coordinated or integrated.

Too often agricultural education, which provides the basic training for extension staff and government personnel, has no formal administrative coordination at any level with the future employment of graduates. Responsibilities are often split between a ministry of agriculture and a ministry of education. In the Korea case, effective coordination exists between the Office of Rural Development at the center and the College of Agriculture, Seoul National University. Indeed it occurs at provincial agricultural high schools (training