

Think in terms of basic national capacity, and the need to define it or determine it for a specific country. More on this below. Basic national capacity depends on the country. It seems to be a common tendency to attempt to create a complete R/E system for a country, no matter what the resource base. Such is not possible for many countries. Nor is it necessary. Countries can depend on the international network for many functions and can do so indefinitely. This dependence needs to be accommodated in the strategy, however. If not managed, it will not be systematic and effective.

A useful analytical device is the technology transfer model developed by Hyami and Ruttan in Agricultural Development: An International Perspective.

D. Early Impact--Visibility

It is conventional wisdom that developing a research program and a research institution is a long run task. If donors and governments are impatient, they will not sustain an effort long enough for it to catch root and survive. Impatience, in other words, precludes success.

No evidence challenges this proposition. However, it is not completely accurate, at least in implication. The long run view of institutional development does not preclude the need and possibility of achieving an early impact. An institution is more akin to a muscle, which is developed by practice and exercise, than it is to a factory which is built in one time period to be used in a subsequent period. A research institution is built by doing what a research program is supposed to do in support of agricultural development.

With proper planning and management, research can have a short term impact that actually improves its long time efforts rather than diverting resources from them. An early impact can be used to gain respect for the research entity in the government and to encourage its own personnel, both of which are important components of institution building.

Early impact will often require technology from the international technology network as well as personnel. The process is an adaptation of the FSR/E process. The first step is to characterize an area--its ecology, its farming systems, and its problems and resources. The next step is to determine which of known technologies would have the highest probability of fitting needs and giving a payoff. That technology is then tested, adaptations are made, in the FSR/E on-farm research mode. When it passes this test, it is promoted in a small area. If it passes that test it goes on to a full-fledged campaign.

Production programs are usually associated with extension, with inadequate attention being given to thorough and adequate testing and needed adaptation. Extension can not perform well with inadequately tested technology.