D. The Technology Innovation Process

FSR/E is commonly associated with field teams who concentrate on on-farm testing, adaptive research, and integration of technology into farming systems. The FSR/E potential can be greatly enhanced by fitting it into the total technology innovation process (TIP) and by relating it closely to the other functions serving that same process. FSR/E can literally condition the entire process.

The TIP is presented in some detail in Appendix A. The model shows the process as a linear process, from left to right. In practice, however, the process has feedback loops, and it can start with a problem or an opportunity which can be identified in any one of the functions.

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<th>World Stock</th>
<th>Science</th>
<th>Tech Gen</th>
<th>Tech Test</th>
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FSR/E concentrates on the functions of testing, adaptation, integration, and dissemination. Research operates on the left end of the TIP and can easily stop, and often does, before the technology is "finished." Extension, operating on the right, often starts its activities too late. FSR/E fills the gap, and both the research entity and the extension entity have a genuine self-interest and even a responsibility to work in this area, each serving its own purpose.

FSR/E sends messages to the left for the kind of technology farmers need generated. If the national system can not respond, very often the international system can. At the same time FSR/E "finishes" the technology for the right end of the continuum and familiarizes extension with it.

FSR/E facilitates the establishment of research and extension linkages. Some experts maintain that it is not FSR/E if it does not. This results from the similarity between the on-farm testing and adaptation methodology of research and the demonstration methodology of extension; from the experimental nature of the farmer; from linkages FSR/E helps build with the farmer; from the farm-tested, "finished" technology that research makes available to extension; and from the fact both are working in the same process for the same end.

Countries can depend heavily on imported technology. They must have a basic national capacity, however, in order to be able to import technology effectively. The ability to test technology and to make minor modifications is part of that basic capacity. Another part is the ability to know what to import. The international network cannot provide these services.