

C. Problem-Solving Approach

FSR/E is based on the standard problem-solving method, which consists of five steps.

1. Problem is identified, or an opportunity is identified, based on a thorough knowledge of predominant farming systems and of relevant technology.
2. Alternative possible solutions are formulated or developed if you are working from a problem that has been identified.
3. These alternatives are tested. If a probable opportunity has been identified, that technology is also tested.

Farmer orientation and involvement plays a key role in this step. Some screening can be done on the experient station, but testing must eventually be done in the farming system for which the innovation is intended and by criteria of the system.

4. The technology is modified (adapted) to the needs of the client farming system, based on results of on-farm trials.
5. Acceptable solution is disseminated.

Dissemination is literally an extension of the R and D process. As the technology becomes nearly finished, the on-farm test becomes almost a demonstration. Further, FSR/E requires continual feedback from the farmer and extension on the performance of a tested technology, such that the extension demonstration is something of a test. The research function of the technology innovation process blends into the extension function to such such an extent that they cannot be distinguished.

FSR/E is iterative. If a technology does not pass the test, other alternatives are sought for testing. If problems show up in dissemination, they are referred back to an earlier step in the technology innovation process.

FSR/E requires the participation of as many disciplines as the R/E System can afford. Where resources are limited, personnel training can be less specialized to gain some inter-disciplinary benefits. FSR/E experience itself can also train personnel to handle a broader range of problems.