

Farmers' Practices and Soil and Water Conservation Programs

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Farmers' Practices, Professionals, and Participation: Challenges for Soil and Water Conservation

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Changing Ideas in Rural Development

Approaches and ideas in rural development have been gradually changing over the past 20 years, bringing into play actors and factors that were barely mentioned before. Many of these changes have been expressed in the concept of "sustainable livelihoods" as a central objective to be jointly realized by rural people and policymakers. "Sustainable" refers to the maintenance or enhancement of resource productivity on a long-term basis. Livelihoods are diverse and often complex, but they depend directly or indirectly on natural resources and agriculture.

One of the crucial changes in approaches towards rural development is the recognition that researchers and planners have much to learn from the people who make a living in rural areas, that programs must take their ideas and experiences into account if they are to be truly relevant. Many failures on the part of rural development professionals are basically due to ignorance, short time horizons, and scientific reductionism.

Ignorance. In general, professionals worldwide have tended not to notice, or to neglect, what farmers themselves do and what farming systems entail, including their often creative approaches to the protection and exploitation of microenvironments. All too often, professionals have been unaware of their own ignorance. Soil conservation programs all over the world have provided examples of ignorance and insensitivity, of imposing standardized, bad practices on rationally resistant farmers.

Short time horizons. Despite the stated long-term perspective of rural development professionals, we actually tend to have short-time horizons. Economists dominated by discount rates undervalue the future; commercial interests want quick returns; and government programs tend to aim at physical targets by the end of a project/plan period.

Scientific reductionism. Professionals simplify complex reality into its parts, assume uniformity, and apply abstract controls to unpredictability. As a result, their solutions are standard packages that do not suit complex, diverse and risk-prone agricultural systems. Specialization and disciplinary training channel scientific efforts into narrow ruts. Most agricultural problems, how-

ever, require a broad, interdisciplinary approach that takes into account many factors and variables.

Farmers as Solution

There are three respects in which farmers, both men and women, are a key to finding solutions: their knowledge, their time horizons, and their analytical capabilities. In terms of their farming practices, priorities, and constraints, farmers have an advantage over professionals. They are continuously creating and managing their farming systems, so they are the experts on their situations. There is now a growing recognition of the value of this indigenous technical knowledge.

While it is true that farmers desperate to survive may take the short-term view, as a rule farmers who are secure in their tenure and rights have a propensity to take the long-term view and invest for future benefits. The professional's mistake has been failure to recognize, utilize, and enhance farmers' analytical capabilities. Recent experience suggests that if rapport, methods, and materials are right, farmers have a greater ability than outsiders have supposed to make intelligent analyses and evaluations.

A telling example of the contrasting perceptions of farmers and professionals relates to deposition fields. Farmers build these over the years by progressively trapping silt with stone barriers in gullies, to finally make flat, fertile fields on which they grow high-revenue crops. In the Gulbarga District of Karnataka, farmers have for some time been making deposition fields in gullies. Recently, a government program constructed standard gully checks which the farmers did not favor. Instead they have developed their own design, which meets their priority of concentrating soil, water, and nutrients for higher, more stable production. In doing so, they had technology to fit local conditions, investing for the long term. Professionals and researchers, on the other hand, have generally failed to recognize deposition fields as an important SWC technology. In fact, they are rarely found on the artificially-levelled research stations, undulations and gullies being seen as problems rather than opportunities to exploit.

Conservation versus Concentration

In general, professionals tend to think in terms of conserving soil, of keeping it where it is; they see erosion as bad. Farmers too see erosion as bad, but they also think in terms of concentrating soil, water, and nutrients together in microenvironments. In their approach, erosion can be used to move and concentrate soil at zero cost, to places where they will increase and stabilize production. Apart from deposition fields, farmers employ several methods to achieve this.

The Importance of Participation

Since participation has been recognized as crucial to the success of rural development efforts, three main strains of innovation have emerged: farmer participatory research, participatory rural appraisal, and community participation.

Farmer participatory research emphasizes the "farmer first" approach, where the standard transfer-of-technology package is replaced by choices from which farmers can select for their diverse and complex farming conditions. A function of the formal research system is therefore to help generate such choices for farmers.

Participatory rural appraisal, a relatively recent development, encourages rural people to undertake activities which earlier were done entirely by outsiders. An example is participatory mapping and modelling, where the role of the outsider now is to facilitate mapping by villagers themselves. This has revealed maps far more detailed and accurate than anything an outsider could quickly achieve. Farmers are empowered right from the start, with this approach, using their own appraisal and knowledge.

Community and group participation includes such activities as group management of such common resources as natural resources, funds, and services; holding trials and experiments; and collective lobbying.

These participatory approaches are particularly significant in the generation of sustainable livelihoods, especially in view of the following aspects:

1. The intensification and complication of farming systems, that increases with population density.
2. Farmers' own priorities are best expressed and understood by farmers themselves, and only through participation can their demands produce relevant research.
3. Security is a precondition to a long-term perspective. Participation can enhance their security and encourage farmers to invest in long-term solutions.
4. Farming conditions are forever dynamic, forcing farmers to be alert, adaptable, and innovative if they are to succeed. Participation can enhance such competence through individual and community action, effective communication, and analysis.

Challenges for the 1990s

The methods and approaches to SWC, which have so far been heavily researcher-oriented, must now become more farmer-oriented, in terms of behavior and attitude. Indigenous technology, and farmers' experience in adoption, innovation, and analysis must be recognized as valuable.

The importance of making SWC programs relevant must be understood by the major implementing authority—the government—if they are to achieve success on a large scale. For scaling up through government, the challenge is to find the right approaches that will encourage field-level officers to better appreciate farmers' practices and priorities so as to enable them to get more of what they want and need.