

Farmer field schools on land and water management: An extension approach that works

Soil and water management is a major problem constraining the development of Uganda's agriculture. Our soils are being depleted: every year, once-fertile soil is becoming poorer because of poor management and inappropriate farming practices. The soil is compacted by repeated ploughing and continuous growing of the same crops. Water cannot seep into the soil, so it runs off, carrying away the valuable topsoil and our rivers brown. Weeds and soil-borne diseases further limit crop productivity.

Following a period when the extension system had deteriorated so far that farmers were almost abandoned, the government established the National Agricultural Advisory Services to implement demand-driven extension services. NAADS applies a range of approaches to help farmers produce more and overcome problems they face.

Farmer field schools

A farmer field school is an innovative approach to helping farmers learn about and improve their production system. A field school is a group of 25–30 farmers who come together to solve a common problem, such as soil degradation, pests and diseases, or poor water availability.

The farmers learn from their experiences: throughout the season, they conduct experiments on their own fields, make observations, and evaluate the results. They are guided and helped by a facilitator – who may be a researcher, an extension worker, or one of the farmers in the group. Each new field school receives a grant, which it uses to pay for the expenses of running the school. Members also contribute to this fund, and may receive a loan to generate income to sustain the school. This fosters empowerment and business skills.

The group meets once every two weeks – more often at key times during the year. Farmer field schools that focus on land and water management learn how to manage their land more appropriately. They can also look at other topics that they themselves choose. The “students” graduate after they accomplish their objective, and each member is given a certificate in recognition of his or her achievement.



Projects promoting farmer field schools on land and water management in Uganda

Several projects in Uganda have successfully used the farmer field school approach.

INMASP	Makarere University and Environmental Alert	Pallisa and Wakiso Districts, 2002–5	5 farmer groups
INSPIRE	Africa 2000, Makerere Univ, CIAT, NARO, district governments	Tororo and Busia districts, 2002–5	48 farmer groups
ULAMP	RELMA, MAAIF, district governments	Mbabara, Kabarole, Arua, Kapchorwa districts, 1999–2003	1187 farmer groups
Conservation Agriculture Project	NARO, Africa 2000, district governments	Mbale and Pallisa districts, 2002–5	48 farmer groups
Soil Productivity Improvement Project	Africa 2000, local governments	Busia and Tororo districts	16 farmer groups



Benefits and impacts

Farmer field schools on land and water management have many benefits. Here are some.

- **Livelihoods and food security.** The land becomes more productive and farmers produce more. They have more to eat, and are better able to deal with risk. In Agule, Pallisa District, for example, yields of groundnuts have quintupled – from 400 kg to 2 tons per hectare.
- **Improved long-term land management.** The soil is healthier and more fertile, and it retains more moisture, so crop production is more reliable. There are more trees and soil cover to control erosion.
- **Better planning.** They enable efficient community action planning. Farmers become more aware of their farming environment, so can plan better for drought, pests and other problems
- **Knowledge and innovation.** Farmers are encouraged to experiment and innovate. They learn how to build on and use their own knowledge
- **Faster adoption.** They involve many people within a watershed area, so speed adoption of improved land management techniques
- **Extension services.** Extension services become more demand-driven, and farmers can tell if they are getting value for money
- **Stronger leadership and voice.** Farmer field schools strengthen the farmers' "voice" for advocacy and enable strong leaders to emerge.
- **Networking.** Groups of farmers can exchange information with each other and with research and extension agencies.

Recommendations

Invest in land and water management. Investment in land and water management at the community, district and national levels must be a priority to sustain the resource base that produces food for Uganda's people. Local people cannot do this by themselves. The government must provide incentives for communities to improve their management of natural resources, so benefiting the nation and the world.

Scaling up. The farmer field school approach should be scaled up so it can reach a larger number of farmers. It should be incorporated into the national extension system rather than implemented on a project-by-project basis. Extension staff can play a key role to initiate and backstop farmer field schools. Close collaboration between government and NGOs will assure success.

Design appropriate training. Trained facilitators and technical support are vital. Farmer field schools and land and water management should be incorporated into the curricula of universities and training institutions. Facilitating a field school is not easy and cannot be learned overnight. Training must

include extensive on-the-job experience. Training materials are needed for all levels: extension staff, facilitators and farmers.

Build on experiences. A scaled-up programme can draw on the valuable experiences of existing farmer field schools, and of their facilitators who have already been trained and have gained invaluable practical experience. More skilled facilitators are needed!

Link to other education modes. Farmer field schools should be linked to other adult education approaches – such as literacy programmes, primary schools and "life schools". Collaboration between the ministries of agriculture and education is needed for this to succeed.

Build long-term resilience. Extension efforts should focus more on practices that build long-term soil fertility and the efficient use of every drop of water – rather than focusing only on commercial enterprises. This will help farmers cope better with drought, floods and other challenges.

Funding. Adequate funding support is needed if farmer field schools are to succeed. For individual groups to be sustainable, they need to develop their own sources of funding – through revolving funds, group-owned businesses, etc. Strong farmer organizations can reduce costs because they can buy inputs at lower prices, and can sell their output for more. Farmers must manage (and contribute to) their field-school grants so they can demand good facilitation and make their own decisions.

Mass media. Radio, television and other mass media should be used to promote improved land and water management and popularize the farmer field school approach.

Policies and regulations. Policies must be strengthened and applied effectively to promote appropriate land and water management practices. Policies on land use and soils currently being discussed by the government should be finalized quickly. Byelaws to conserve and make more productive use of land and water must be developed and enforced, with the full participation of local stakeholders.



This policy brief is the result of recommendations from a workshop of 70 scientists, field school coordinators and facilitators, farmers, extension and NGO staff and government officials (Jinja, 24–28 April 2006). Produced by INMASP and the FAO Pilot Project on Land and Water Management through Farmer Field Schools, www.fao.org/ag/agl/