

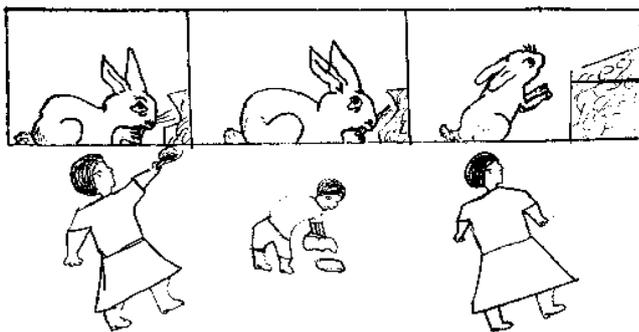
# Primary schools as catalysts for change

George Odhiambo and Damas Masologo

In Babati, Tanzania, young people face the future without the information or financial and technical resources necessary to deal with declining soil fertility, poor yields, and the diseases and consequences of the inappropriate land management practices that undermine livestock productivity. Extension services are minimal, access to inputs limited, and the lack of credit and infrastructure necessary to ensure regular and predictable marketing makes earning even small cash incomes difficult. The future for many young Tanzanians in Babati district depends on mobilizing communal resources to halt environmental degradation and break the cycle of poverty that is crippling local agriculture.

FARM-Africa Tanzania's new *Babati Agricultural and Environmental Education Project* is trying to address this situation and the primary school is seen as an important catalyst in this mobilization. By linking the capacity and experience within local communities, district government departments and agencies and the NGO community, it aims to provide young people with the insights and skills they need to help them develop new ways of understanding and using their natural environment. By introducing changes into the primary school system at institutional, technical and psychological levels, this three-year programme is creating better links between the knowledge and capacities of local farm families and the skills, experience and human resources of the local education system.

From the early 1990s, FARM-Africa has supported the school farms that are a feature of every Tanzanian primary school. Over the years it has provided these farms with planting material, trees and seeds, helped install water tanks, introduced oxen, and provided agricultural instruction and advice. In the process it has developed considerable experience in working with local schools and has a strong reputation with District Education Department staff.



Looking after the rabbits. Drawing by Gloria Andre.

However, despite the amount of time children spent working on school farms and the new practices and materials provided, it was concluded that school farm activities had contributed little to FARM-Africa's primary objective of alleviating poverty by encouraging practices that support productive agriculture and better natural resource management. Neither had they contributed to creating awareness amongst parents, teachers and children of the importance of the way agriculture was taught. Formal lessons on agricultural topics were squeezed into the six



Photo: Marilyn Minderhoud-Jones

A boy at Kiongozi Primary School tending his rabbit.

hours per week allocated to "Stadi za kazi" (vocational skills) alongside a variety of other life skill subjects.

In trying to revitalize and create structures that stimulate the co-operation, self-reliance and innovation needed to deal with these problems, the new project focuses on 13 primary schools. It emphasizes the relationship between the structure, syllabus and culture of the primary school and the development process. Like the government's *Primary Education Development Programme* (PEDP) launched at about the same time, it argues that primary education has lost touch with rural life and as a result enrolment rates have fallen from 98% in 1981 to between 50-75% in 1996. Today, there are more school dropouts and young people leaving primary school with low levels of literacy. Far too often school attendance and farm responsibilities are seen as conflicting rather than complementary, and parents in resource-poor households are often unable to see why children should go to school when they are needed at home.

Primary schools in Babati lack the financial and material capacity to deal with this situation. There is a shortage of trained staff and a chronic lack of facilities and teaching materials. The Ministry of Education has no trained subject specialist able to support the teachers responsible for agricultural education and there are few in-service courses to keep teachers up to date with new teaching ideas. As a result, most teachers rely on the traditional teacher-centred classroom approach irrespective of the topic being taught.

## Catalysts

Resource people from government departments, teacher training colleges, NGOs and local schools and communities have been involved in designing and implementing the new project. Using a mixture of participatory rapid appraisal and community consultations, local opinions about primary education have been inventoried and village councils have been closely involved. At the district level officials and representatives from the Ministry of Education and Culture, the Ministry of Agriculture and Food Security, and the Department of Lands, Natural Resources and the Environment have been appointed to the project's advisory and decision-making committee. This is important because the lack of contact between the various ministries has been identified as one of the reasons why agricultural education is weak in primary schools.

Staff from the Ministry of Education and the school inspectorate are closely involved in planning trainings to increase the administrative and financial capacity of school committees, workshops to upgrade teaching skills and material, and in monitoring the effects of the project on the quality of education and formal assessment. During capacity building workshops, tutors from local teacher colleges and NGOs with experience of youth and education in Tanzania provide support and advice.

### Responsibilities

In recent years, the Tanzanian Government has redefined the relationship between the primary school and the Ministry of Education and Culture. The Ministry is no longer a service provider; rather it coordinates and supports community efforts to manage the local school. It is the community's responsibility to see the school meets local needs. This facilitating policy environment has made the project approach, which depends heavily on the fullest involvement of parents, community leaders and teaching staff, possible.

Experience has shown that parent and community involvement depends very much on the initiatives taken by the school itself. Therefore, efforts by project staff focus on ensuring that school committees function effectively, school charters and constitutions are drafted to include contributions from the community, and annual reports and financial statements are written in such a way that they can be used to monitor the three-year activity plan drawn up the schools taking part in the project. They also help set up parent-teacher associations and help plan field and open day activities.

### Teachers

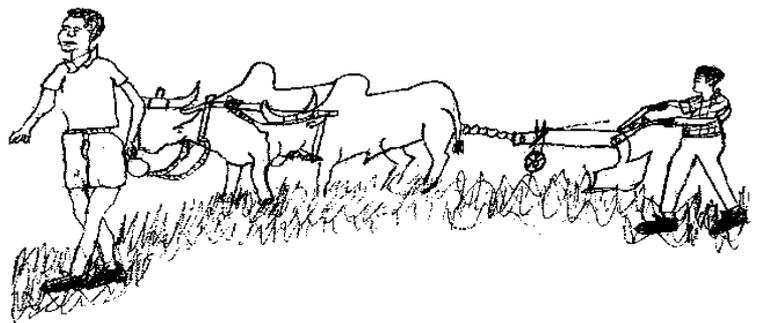
In Babati, introducing the child-centred, interactive learning approach that has proved motivating and effective elsewhere in Tanzania is a challenge. FARM-Africa is concentrating on developing the capacity of teachers to use an approach known as *Discovery Learning*, in which inspiring and motivating children is regarded as important as the transfer of facts. The approach recognizes that children bring to the classroom their personal experiences of agriculture and nature picked up from their own observations, the instructions of parents and relatives and, increasingly, from information heard on the radio – the broadcasts of *Radio Tanzania*, *Radio Free Africa* and *Radio Triple A Arusha* have a big audience in Babati.

In *Discovery Learning* the teacher builds on these experiences and challenges children with situations and experiments that force them to draw their own conclusions and solutions. Planning practical lessons and demonstrations and finding ways to get children to talk about their own farm experiences places heavy demands on teachers' resources and skill, so efforts are made to ensure teachers have the tools and materials they need for this task and that they get support and guidance. Teachers' workshops are organized where subjects suitable for the agricultural and environmental part of the syllabus are selected, and ways of teaching topics in an interactive, child-centred way to different age groups is discussed. The ideas and plans emerging from these workshops are then re-worked into teaching material, manuals and suggestions for practical exercises and experiments that children can do themselves.

Some of the practical exercises selected during teachers' workshops and developed into class materials use participatory research approaches. For example, selecting and cultivating three local crops on proof plots and evaluating their *pros* and *cons*; conducting experiments to find out what factors affect maximum production and the safe storage of crops; and working

with small animals like chickens, rabbits, and bees – creatures that an ordinary poor rural family can handle – to get a better understanding of their behaviour, needs and potential. FARM-Africa has developed practical mechanisms including financial support to help schools involved in the project to purchase the material they need for this work.

The link between school and home is also reinforced by asking local farmers with special skills, or who are known for good farming practices, to demonstrate these to the children. In this way children see people who are just like their parents in another role and learn to understand how the knowledge and experience of farmers fits in with what they learn at school. The project is also working with teachers and the school inspectorate to try to get the agricultural work that children do at home – following practices learnt at school – included in their school assessments. Home visits, assigning children to "home groups" to work on particular projects with their families, and parents' days also emphasize the continuity between home and school. The school can have a direct and positive effect on how young people contribute to the farm household, but both home and school must work together so pupils get the opportunity to learn the skills they need.



**FARM-Africa has established micro-credit arrangements in the form of a revolving fund which enables schools to buy oxen and ploughs. While the children learn to understand, manage and work with the animal as part of their school work, the oxen are also hired out to local farmers who need their fields ploughed. The money raised in this way is invested in seeds, materials and small livestock needed for *Discovery Learning*. Drawing by pupil of Kiongozi Primary School.**

### Impact of new approach

The project and its approach are still new and everyone involved has to learn. Used to a formal, exam-orientated system in which entering into discussion with a teacher is considered culturally unacceptable, and where the practical skills needed to manage a farm have little status, children are now being encouraged to value and use their own experience. So far pupils are positive about the project. They see the benefits and enjoy the activities. The longer-term impact of *Discovery Learning* is being assessed with the help of the school inspectorate and efforts will be made to find out how far the information children have gathered at school has resulted in changes at home. The results of evaluations, using indicators and surveys, will be combined at the end of the project in order to give a full picture of the impact of the project, and make it possible for FARM-Africa to lobby for positive results of the project to be up-scaled into the national agricultural curriculum.

George Odhiambo and Damas Masologo. FARM-Africa Tanzania, Babati Rural Development Project, P.O.Box 675, Babati, Tanzania. E-mail: farmbabati@habari.co.tz