



By Ranjit Mulleriyawa

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Trying to understand how agricultural extension works (does not work) in Sri Lanka is a frustrating and exhausting experience. The central government (through the Department of Agriculture) is responsible for extension in all areas falling within 'Major irrigation schemes' (except in areas falling within the jurisdiction of the Mahaweli Authority of Sri Lanka (MASL). The MASL operates its own extension service. The provincial governments are responsible for agricultural extension in other areas through the provincial departments of agriculture. A description of extension activities in each of these areas is beyond the scope of this article. As such, the writer would confine himself to spotlighting a few salient issues applicable to extension in the non-plantation agricultural sector (food crops).

Frontline extension workers

The Agricultural Instructor (AI) is the frontline extension worker. Usually one AI is entrusted with the responsibility of catering to the needs of all farmers within an agricultural service center area (Govi Kendra). Thus the number of farmers served (expected to be served) by a single AI varies widely - ranging from 3,000 to over 10,000. In a recent survey carried out by an INGO in Anuradhapura district, it was found that the AI attached to Ranorawa 'Govi Kendra' had to cover an area of approximately

25 square miles. This AI had about 3,500 farmer families to service, and the officer was able to devote only 10 days each month to field work. The rest of the time was spent at office or attending meetings.

The AI in Yodakandiya (Hambantota district) had to cover two 'Govi Kendras' - Yodakandiya and Weerawila. There were about 13,000 farmer families to be served. This AI's monthly schedule enabled her to devote no more than 14 days to field work. Both these AIs were keen and dedicated workers, but their workloads and tasks allocated were simply unrealistic.

'Govi Niyamaka' (Agricultural Production and Research Assistants)

This category of field workers was expected to fill the void created by Krushikarma Viyaptha Sevakas (KVS), who had been made Grama Niladaris. But the Govi Niyamakas, who have now been given the pompous designation of Agricultural Production and Research Assistant, do not possess any professional qualification in agriculture. To make matters worse, they owe their allegiance to the Department of Agrarian Services, NOT the department of agriculture, and these worthies were expected to perform 52 tasks (according to their list of duties). Such comedies defy rational explanation!

The net result of all this is that the majority of small farmers, particularly those living in remote rural areas, receive no extension support.

Center of Excellence

Agricultural extension in our country is simply in a big

mess save for one center of excellence - the AudioVisual Center of the Department of Agriculture at Gannoruwa. The staff here is exceptionally courteous and service oriented. This center has also recently initiated an innovative 'phone-in' programme where farmers from any part of the country could seek agricultural advice over the telephone by dialing the number 1920. It may be argued that not many farmers in this country have access to telephones. Nevertheless, with the rapid expansion of Telecommunication facilities in the country, this effort on the part of the audio-visual center may not be such a far-fetched idea, and needs to be commended.

There is also an exceptional 'Research Officer' at Gannoruwa (HORDI) who is a shining example of a highly effective extension worker. He is responsible for home garden

found to be highly effective in assisting small and marginal farming communities increase their agricultural productivity. Effective agricultural improvement work grows out of years and years of trying one approach after another, constantly searching for more effective ways of working with farmers. 'World Neighbors' - a small private voluntary agency working with a variety of local, national and international organizations in several countries (Guatemala, Columbia, Mexico, Indonesia and India) have found the FCAD approach to be a more convincing alternative to the transfer of technology approach to agricultural development in addressing the needs of resource-poor farmers operating in diverse risk prone environments. A World Neighbors Publication titled 'Two Ears of Corn' contains the distilled wisdom of 30

Program goals

FCAD is based on the philosophy that "the goal of an agricultural development program should be on the one hand, to train and motivate farmers to teach each other the innovations introduced and, on the other, to teach them how to improve on these innovations by themselves. In short, the goal should not be to develop the people's agriculture, but to teach them a process by which they can develop their own agriculture." Programs that teach only technological innovations are either destined to become permanent fixtures in the area, or pull out, leaving the farmers to gradually slide back to their previous levels of production.

Start small

"A great deal of heartbreak which in the past has too often turned over optimistic idealists

son. World Neighbors experience has shown that in several cases a simple change in farming practice may be most strategic in removing bottlenecks and providing a basis for accelerated development. "When we work with only one or two practices, we can select those that combine simplicity and low risk with major increases in productivity. In this way we have the best chance of achieving a high rate of success. The program gains credibility not only because of its success, but also because it wastes little of its own, and peoples' effort on less effective innovations."

Appropriate technology

The World Neighbors publication - 'Two Ears of Corn' also lists many practical questions that need to be asked in determining the appropriateness of a technology or farm-

development, and the popular television programme 'Rivindina Arunella' telecast over the national channel ('Rupavahini') every Sunday.

Opportunity for NGOs

Even during the best of times, public sector research and extension has not been effective in reaching the poorest farmers. Resource poor farmers operate in fragile ecosystems and environments which cannot be unified through irrigation and purchased inputs. Their farms are located away from markets and urban centers. It is therefore highly unlikely that government bureaucracies would ever be able to cater to the needs of this category of farmer. Thus, there is an urgent need to seek for alternative approaches to agricultural extension which are more cost effective, and better able to meet the needs of poorer farmers. Given the will, non-governmental organizations (NGOs) can play a very effective role in small farmer agricultural development.

Traditional NGO activity in our country has been mainly confined to community mobilization, credit and savings programmes, micro-enterprise development and poverty alleviation. Since the majority of the rural poor tend to be engaged in farming, effective improvement of small farmer agriculture could make a significant contribution to poverty alleviation. However, if local NGOs are to have a tangible impact on small farmer agricultural development, they must be willing to make a long-term commitment towards this end and have a well-focussed program adopting the right approach and strategies. It is in this context that we have much to learn from the experiences of 'World Neighbors' - a private voluntary agency which has made a significant contribution to small farmer agricultural development in Latin America.

Farmer centered agricultural development (FCAD)

FCAD, also referred to as 'Participatory Technology Development' (PTD), is an extension approach which has been specifically designed, and

years of struggle attempting to improve small farmer agriculture in the Third World. These experiences can be very valuable for Sri Lanka at the present time. As such, some of the most valuable learning experiences contained in this World Neighbors publication are highlighted below.

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into later cynics, would be avoided if those who wish to help in agricultural development could learn to be content to do good slowly."

Small and simple programs can play a unique invaluable role in small farmer agricultural improvement. They can meet the specific needs of specific cultures, markets and microclimates and can build upon existing local resources such as traditional knowledge, exceptional leadership and indigenous forms of organization. They have the ability and flexibility to be creative and respond to changing needs without bureaucratic delays. "Organizing large and complex programs make meaningful farmer participation impossible. Once this error is committed, programs invariably take one of two courses of action. The first is that of 'outsiders' running the program in perpetuity. The second alternative is to turn the program over to villagers before they are at all capable of running it. "Large programs run the risk of being poured in concrete before the wrinkles are worked out, or they wind up living with the wrinkles for a long time, spending a lot of extra time and money to smooth out hardened concrete."

Avoid handouts

"Giveaways (handouts) can blind people to the need of solving their own problems. When the only progress villagers see is accompanied by handouts, they can easily become convinced that they are incapable of making progress by themselves. This feeling of inadequacy, in turn, creates dependency and subservience, robbing people of their self respect."

Likewise, doing things for people also creates a sense of dependency and inadequacy. The "please won't you give us something, changes to the equally obsequious, "please won't you do something for us?" We should do only those things that the people cannot, or in the beginning will not do themselves."

Limit the technology

It is better to teach one idea to hundreds of people than hundreds of ideas to one per-

ing practice for a particular area. They are:

1. Does the technology meet a felt need?
2. Is the technology financially advantageous?
3. Does the technology bring recognizable success quickly?
4. Is the technology relatively free of risk?
5. Is the technology culturally acceptable to poor farmers in the particular location?
6. Is the technology aimed at adequate markets?
 - Are market prices adequate and reliable?
 - Is the market accessible to small farmers?
 - Does the market have sufficient depth?
7. Is the technology safe for the ecology of the area?
8. Is the technology simple to teach?
 - Simple technologies are learned sooner and spread faster. They also result in fewer failures, and permit modification without being discarded as a whole.
9. Is the technology simple to understand?
10. Does the technology arouse enthusiasm among farmers?
 - Technologies that fail to arouse farmer enthusiasm will spread only as far as the paid extensionists take them. Whereas those that do create enthusiasm will spread with phenomenal rapidity from one farmer to another with very little outside stimulus.

Leukaemia drug could halt diabetes in its tracks

By Richard Alleyne,
Science Correspondent

Researchers have found that the treatment, which dampens down parts of the immune system and so stops it from attacking the body, could be used to prevent and even reverse type 1 diabetes.

The drug - known as Imatinib and branded as Gleevec - was developed to inhibit an enzyme that causes cell mutation in chron-

ic leukaemia.

But experiments by American scientists at the University of California have shown that it also reduces diabetes in mice which are genetically bred to develop it.

Type 1 diabetes, which affects up to 375,000 people in the UK, is thought to be genetic in origin and usually sets in around middle age.

An auto-immune disorder, it is caused when inflammation destroys cells in the pancreas. Sufferers have to take regular

injections of insulin in order to regulate blood sugar levels.

To test if Imatinib would treat or halt this inflammation and thus prevent onset of the diabetes, the researchers tested the drug in mice who were susceptible to the disease.

In doing so, they found that treating mice with Imatinib or a similar inhibitor drug for seven weeks before the onset of auto-immune (type 1) diabetes prevented development of the disease

long after the treatment was stopped.

Only 20 per cent of the animals treated with Imatinib became progressively diabetic by 30 weeks of age, as opposed to 71 per cent of those who did not have the drug.

The majority of imatinib-treated mice remained non-diabetic at 50 weeks of age, suggesting that the short-term therapy had long-term effects on the development of diabetes.

The drug put 80 per cent of

mice with existing disease into remission when mice were treated for eight to 10 weeks after disease onset.

Cédric Louve, who led the research, said the conclusion was that the same drugs - that had important ramifications for cancer treatment - could be used to treat type 1 diabetes and, possibly, other auto-immune diseases.

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A drug developed to treat leukaemia could offer new hope to hundreds of thousands of people with diabetes.

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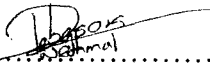
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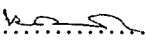
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