

EDITORIAL

Scientific and technical information - A tool for development

R. Delleré

How many times have we not heard in discussions on agricultural production in Third World Countries, that research is ten to twenty years ahead of application ?

Some people would take this to imply that available funds would be better spent on development projects than on scientific work. This attitude has little to defend it, since it does not take into account changes in environment due to climatic changes, soil degradation, demographic pressure, and the appearance of new diseases and scourges. It is therefore essential to have an attitude of enquiry and investigation. Nonetheless this comment does illustrate how an important resource, one which has enjoyed insufficient consideration to date, is being wasted, namely : scientific and technical information (STI).

Indeed, is the principal cause of misdirected development not the under-utilization of resources, whether human, plant, animal, natural environment, or ... knowledge ? Why is knowledge under utilized ? There are a number of reasons which I intend to identify briefly without placing them in order of importance.

At present STI is undervalued. Just take a walk through the libraries of research and teaching institutes in the Third World. They are empty. The first targets of budgetary cuts are publications. However, STI has a commercial value, based on the cost of the research as well as the accumulated experience of rural producers. In the past this accumulated experience was given its just recognition and transmitted orally. However, today's leaders, most of whom have an urban background, do not have the same attitude.

Curiously, and unlike other resources, the more abundant STI becomes, the more its price increases. This is due to the need to master this wealth of information in order to obtain the relevant piece of information. Such research and selection is expensive.

It is not unusual to find studies being undertaken which have already been carried out a number of years previously, or research being undertaken simultaneously on an identical subject in different locations. This is a waste of funds due to lack of information.

For a number of reasons, STI is restricted. The reasons include the low number of copies of reports available, their appropriation by a limited circle of privileged readers, and the often unjustified character of secrecy conferred on them.

Access to STI is difficult. Books and periodicals are expensive. Distribution networks, if they exist at all, are at an embryonic stage. Libraries are few and far between, there is insufficient, and bibliographical periodicals are nonexistent. Furthermore, people are often unaware of the existence of certain reference works, and even for those who are aware of their existence, the acquisition of these works is hampered by the practical problems of ordering, forwarding and payment.

STI is also imprisoned behind language barriers and related prejudices: i.e. the feeling that whatever is published in one's own language is of greater value, not to mention the unwillingness to try to understand what is said in a different language.

STI is aimed primarily at the concerns of the scientific community. It is rarely adapted to the needs of producers, and is not available to them in a language which they can understand. Decisions makers, although they have sufficient educational background to understand the scientific literature, do not have enough time to read it. The information supplied to them is usually neither concise nor synoptic.

Finally, the request for information is often badly formulated. To use a worn out expression "Ask a silly question and you'll get a silly answer". It is important to know whom to contact, but it is even more important to know what to ask, and how to ask it. This requires a sufficiently clear knowledge of the problem, otherwise one may give the impression that the question does not arise out of real need for information but merely out of curiosity.

Let us also say something about people. The STI that concerns us is at the interface of agricultural sciences and data technology. The best teachers are not necessarily those with the most knowledge; they have to be able to teach as well. In the same way agricultural technicians have to be able to communicate what they want to say. In order to do this they have to keep abreast of developments in means of communication. Similarly, those responsible for documentation and information should receive a basic scientific training. This is far from being the case. Data is made by people for people. Therefore training and the design of data systems are important — at times more important than the content itself.

Having examined the constraints, it is clear what actions should be undertaken. Suffice it to say that in addition to the well-known traditional methods, modern technology provides us with excellent tools, born of progress in telecommunications and data processing. These are the databank and database, not to mention the possibilities offered by distance learning through satellites.

Those interested in improving the dissemination of STI will find here lines of action for exercising their initiative. It is based on the analysis of these constraints that the Technical Centre for Agricultural and Rural Cooperation has defined its action programme in its different fields of activities: technical meetings, publications, translations, studies, assistance to documentation centres, a "question and answer" service, etc.

However, when we embrace an area as vast as agriculture in the broad sense of the term, that is, the rational use of natural resources, we are faced with the major problem of choice regarding not only the evaluation of the information, but also the material to be disseminated. We have to define our priorities and it seems to us at the CTA that these should be guided by the prime priority, that is, to ensure the supply of food in Third World Countries while preserving natural resources; in other words, to satisfy present needs without mortgaging the future. Ensuring a supply of food means that priority should be given to the production of food, whether in the form of crop, animal or fish. However, cash crops should not be neglected as they provide the financial resource required to transport food within the country and to import food from other countries where necessary. Self-sufficiency does not mean going it alone, and it would be wrong to close one's doors to the outside world. We cannot accept the recurring criticism that the main aim of providing outside financial assistance for tea, coffee and rubber plantations, amongst others, is to ensure the supply of these products to developed countries. Can Ghana hope to feed its population without reviving its production of cocoa?

The efficient transfer of information is a question of attitude. We should respect the peasant farmer - possibly a person of limited horizons, undoubtedly cautious, but surely an old hand at the game - and an experience accumulated over generations. We should however also be interested in using modern technology to attain our goals. Those responsible for the transfer of information must link supply and demand. They must bridge the gap between the simplicity of the traditional farmer and the sophistication of modern technology. Where, after all, lies the real sophistication? Is it in the binary language of the computer or in the equation used by the peasant to integrate the many parameters involved in producing the crops which ensure the survival of his family?

R. Delleré
Head of the Technical Division
CTA
P.O. Box 380
6700 AJ Wageningen
Netherlands