TECHNOLOGY ASSESSMENT AND TRANSFER FOR SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT - AN FAO GLOBAL REVIEW

Bruce R. French[1]

ABSTRACT

The paper considers the FAO global review of Technology assessment and transfer for sustainable agriculture and rural development. Some key concepts endorsed and promoted by FAO are outlined and attempts are made to interpret them in the PNG context.

***Key words**: Technology assessment, sustainable agriculture, rural development.*

INTRODUCTION

Due to my having been recruited last week for an FAO Consultancy as an Agro- Ecology and Food Crops Specialist under the Technical Cooperation Programme I can draw an over 20 years experience collating Agricultural Information for Papua New Guinea, but scarcely adequately represent FAO on this topic. So what I am going to do is highlight a few key concepts endorsed and promoted by FAO and attempt to interpret them for the local Papua New Guinea context.

Some of the current terminology on development speak of Farming Systems Research, on farm adaptive research, well being of smallholder farm families, a bottom-up approach to village development, involvement of women in development, accounting for the nutritional welfare of the smallholder family, the two way interaction and exchange of information for goal setting, low input plant protection, sustainable production, as well as farmer's rights, maintenance of biodiversity for sustainable development and utilization of indigenous knowledge.

These are more than words, and are attempts to face the reality of diverse systems as encountered in a country such as Papua New Guinea.

INFORMATION TRANSFER

Lack of power, computers and other technologies means that much of this information is still being collated and exchanged in a less formal fashion. The UNDP FAO information centre at Konedobu is promoting CARIS for current Agricultural Research to reduce duplication and AGRIS to give a wider Agricultural Information retrieval system. These developments are vital.

The process of technology transfer can fail at a more human level. Examples from two significant reports by consultants can illustrate this human failure. The old SPC's careful and detailed study on Banana Scab moth recorded lots of good, useful and accurate information. But those involved obviously forgot to ask Papua New Guinea banana growers what they knew about the insect, its distribution and control. If they had been asked some of the better Tolai banana growers could have explained several simple appropriate cultural methods useful in limiting damage. A similar detailed report on sago production isolated overcrowding as a key factor limiting production. It then highlighted the difficulties of thinning out suckers because of the thorniness of palms and the difficulty of getting hormone herbicides onto the growing point. A Papua New Guinea sago grower, if asked, could have given a simply one minute costless demonstration. A small hole cut in the palm allows the sago weevil to gain entry to kill the sucker.. The bonus is a highly nutritional feed of sago grubs.

Information collation and transfer is vital but it must have a human face.

GENETIC DIVERSITY

For at least 17 food plants Papua New Guinea is one of the worlds' major centres of diversity. In my view it has number of other food plants worthy of

[1] 38 West Street, Burnie, Tasmania. 7320, Australia.

world attention but seemingly unknown outside this country and often even in only one region of the country (e.g. Ormocarpum, Rungia, Bukubuk, Karuka, Finschia nuts). FAO through its Global System and Agenda 21 programmes is committed to the recognition and conservation of these resources, but also to see that Papua New Guinea farmers who have actively worked with and selected land races within these plants have their farmer's rights recognised and that they receive benefits from the utilization of these resources.

WOMEN, NUTRITION AND STATUS OF FOOD PRODUCTION

Only once in Papua New Guinea have I ever seen a traditional food served in a restaurant and this was for pitpit in coconut milk in Rabaul. I have never been offered a tropical/traditional food on the National Airlines. In Indonesia, plants such as amaranth (aupa), aibika, tuplip and sweet potato are regularly served in restaurants.

In Papua New Guinea, because of this attitude, the agenda is socially loaded against the foods that are agro ecologically suited to this country. People see food production as a low status activity, unless they are trying to grow certain introduced vegetables.

This attitude is reflected in the fact that several of the indigenous vegetables of high nutritive value do not even have a name in English or Tok Pisin (e.g. Oenanthe, Rungia, Amaranth, Polyscias, Ormocarpum, Talinum, Ficus). In a country of over 700 languages it is not surprising that little information transfer occurs with foods that only have a scientific name or a local language name. Plants such as these are incomparably more nutritious than cabbage and with minimal pest and disease.

Most food in the world is grown by women and Papua New Guinea is normal in this regard. FAO along with other groups continue to stress the need for women trained in agricultural information and technology transfer. The need for enhanced food processing and greater awareness of nutritional value is a high priority for wholistic farm family development. Improvements in this area could contribute greatly to reducing food imports.

Throughout the tropical world a new emphasis, is and needs to be, continually put on appropriate development which is based on working with the genetic diversity and sustainable production systems for the overall benefit of the whole family unit.