

# THE INTERNATIONAL EXPERIENCE WITH THE TRAINING AND VISIT SYSTEM

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## INTRODUCTION

It is a good thing that the Tanzania Society of Agricultural Education and Extension (TSAEE) has created an opportunity to discuss how the Training and Visit System of extension management can be adapted to the needs, situation and resources of Tanzania. It is clear that this kind of adaptation is needed. If we copy successful systems as they operate in some other countries, the experience of the World Bank is that it may not work as well in Tanzania (Hayward, (1989)). This paper seeks to contribute to the discussion by outlining experiences gained through participating in the introduction of the system in Turkey, planning the introduction of T & V in Tunisia and talking with extension staff in India, Indonesia, Philippines, Thailand, Malaysia and Zambia. The contribution also owes much to discussion about this system at meetings and courses and reading about these experiences from many other countries. Much of what is included in the paper is also based more on impressions than on hard facts. It is hoped that quite a number of other people can complement this report based on their knowledge from experiences with T & V elsewhere.

People who have worked with the T & V system often claim that the system results in more effective extension work than is the case with other systems, but not as much more effective as they had hoped (Gentil, 1989:27). People who started with this system some 15 years ago say that initially, the system was not adapted sufficiently to the needs of their countries and they made major modifications after the World Bank assistance expired. The FAO compared for their "Global Consultation on Agricultural Extension" the impact of extension projects where the T & V system had been used with the impact of other approaches to extension. They found that the T & V system had a high impact on the adoption of innovations, but had similar impact as the other approaches with regard to farm income and crop yields (FAO, 1989). Clearly agricultural extension is only one of the elements of the agricultural development mix. Therefore the T & V system or any other approach to extension will not work if the other elements, such as input supply, marketing, pricing policies and research are not organised properly (van den Ban and Hawkins, 1988:16). The introduction of the T & V system requires a change in capabilities, attitudes and behaviour of the whole extension staff and even of people with whom they cooperate. Experience with T & V techniques of extension, as with others, suggests that at least ten to fifteen years are needed to get the system firmly in place and to develop a "professional field-based system" (World Bank, 1985:viii).

In the T & V system, we have a number of key features or basic principles (Benor and Baxter, 1984: ch.2). Such key features include: the professionalization of the extension agents, gearing the whole research and extension system towards the needs of the farmers, and sticking to rules on how to realise these principles. One such rule is that the village extension workers (VEWs) should be trained once a fortnight. This paper concentrates on the above principles, as they are supposed to be generally valid, whereas the rules have to be modified according to the local situation.

### 1. IDEAS ON THE MAJOR PRINCIPLES

The T & V system tries to develop extension agents into professionals who are really capable to enter into a dialogue with farmers in order to find solutions for their problems. In general, one gets the

impression that the VEWs are more trained to become postmen who can deliver messages from superiors to farmers than as professionals who can develop good solutions for farmers' problems themselves. This is related to the pre-service training of the VEWs as well as their trainers, who are often more trained to memorise knowledge than to apply this knowledge to solve problems. This may be a more serious problem in Tanzania than in some other countries. There are some problems for which there is only one good solution, but there are also many problems for which the solution has to be adapted to the situation of the farmer. One should not, for example, recommend the same fertiliser rate to a farmer with enough capital who can expect to sell his maize for 2000 Tsh. a bag and to one who can expect to receive only 400 Tsh., or who is heavily in debt to a local businessman to whom he has to pay 25% interest a month. However, these blanket recommendations, have been used in the T & V system. It often takes time until the extension agents have received enough professional training to adjust their recommendations to these specific situations.

In the T & V system, the subject matter specialists (SMS) play a crucial role in linking the VEWs with the research institutes, but in many countries it is difficult to find people who are sufficiently trained for this task. Often they have been trained in general agriculture and have done an office job for years afterwards. They are not sufficiently trained in their speciality nor well enough informed about the problems, situations and experiences of the farmers. Training in the monthly workshops by the researchers is not sufficient to make them really specialists in, for example, plant protection. Longer courses are needed to make them really competent in their field. An important part of their task is to design and supervise on-farm trials in cooperation with the researchers and to develop extension recommendations on the basis of these trials and the results of on-station research. They should train the VEWs to understand and be able to apply these recommendations. For these applied research and training tasks, additional training is usually needed.

In an extension service, the real work is done by the village extension agents. The main task of the managers is to enable and motivate them to work effectively. In order to be able to do so the extension manager has to listen very carefully to the VEWs' explanations about the problems they face in their work. This requires a major change in attitude from the traditional boss, who gives orders to his subordinates as to what they should do. Such a change in attitude requires time and support from the middle level extension managers such as the District Agriculture and Livestock Officers (DALDOs). In the T & V system the Regional Agriculture and Livestock Officer (RALDO), the Assistant commissioner for Extension and similar managers are supposed to spend half of their time in the villages to learn about problems they should solve to make extension work more effective. In many countries, they in fact spend much less time in the villages, otherwise they might get troubles with for example, the Regional Commissioner when they are not in the office when he/she needs them.

## **2. Field and Farmer Orientation of the Research and Extension Organizations**

In the opinion of some people, this is the most important principle which has to be followed in any kind of successful extension work whether or not it follows the T & V approach. It says that the communication from the farmers to the extension managers and researchers is at least as important as the communication in the other direction. The experience is that if the extension agents come with messages which help farmers to realise their goals, farmers are willing to listen. It is often said that farmers in developing countries are conservative and not willing to change, but there is little empirical evidence for this attitude. Surely, farmers will be resistant to follow recommendations which are not in their interest. They will not for example follow some recommendations because they are too risky, or are not based on a good understanding of the reasons why they are farming the way they are farming.

However, there are many studies which show that farmers in developing countries adopt good recommendations very fast. For example, farmers in the Punjab in Pakistan, took half as much time to adopt the Mexican wheat varieties as it took the farmers in Iowa to adopt hybrid maize (Lowdermilk). Implementation of this principle often requires a major change in the way researchers and extension agents think. This takes time. Joint visits of extension, SMSs and researchers to farmers to analyse their problems and their experiences with the adoption of innovations have convinced many researchers in India that they should not do their research at input levels which give the highest yields, but at levels most farmers can afford to use.

The development literature ~~in recent~~ years has given much attention to the importance of indigenous knowledge. One realises that agriculture cannot develop unless one uses the large stock of valuable knowledge farmers have gained through their experience and their experiments (Richards, 1985). Such knowledge has to be integrated with the knowledge gained from research. In theory the fortnightly trainings and the monthly workshops are good ways to spread the indigenous knowledge one VEW has learned from his farmers to others, but in many countries these communication channels are not used effectively for this purpose.

### **3. To Way Linkage**

In many countries the linkage, farmer-VEW-SMS-researcher and vice versa has improved greatly as a result of the introduction of the T & V system. Often, however, the linkage from farmer to researcher is still weaker than it should be for effective extension work. Moris (1987:204-208) shows that a real problem in East Africa is often that many research recommendations are not profitable for farmers. One reason for the slow rate of agricultural development in many African countries is probably that much of the research has been done at input levels which few farmers can use.

For effective extension work, one should first ask farmers what kind of information they need and then gain their confidence by providing this information accurately and rapidly. This confidence makes it possible to convince farmers that new knowledge for which they did not yet feel a need can be valuable to them. The T & V system has not always succeeded in getting rid of the old habit to preach to farmers information for which they do not feel a need for and which might even have already proven not to work in their circumstances (Belloncle, 1989).

A good system of feedback from farmers to research and extension makes it possible to develop situation specific recommendations. The T & V system has often spread recommendations which are only valid in the situation of some 75% of the farmers. Benor's idea is that in a situation where most of the VEWs are poorly trained, it will be difficult to come with situation specific recommendations. Initially it may be better to come with recommendations which work well on the majority of the farms, but not on all farms. This should not be the situation in Tanzania where many of the VEWs have more years of education than their colleagues in the Netherlands had in 1960. The feedback received from farmers and extension agents in many countries has convinced research managers that social and economic research is needed to be able to develop good recommendations or the most relevant impact points. In order to develop solutions for farmers' problems, biological and social scientists have to work together as a team.

### **4. Single Line of Command**

In many countries the extension agents used to have one boss in the Ministry of Agriculture and another one in the regional or local administration or among the politicians. The VEW is already a man

who has the difficult task of satisfying the farmers as well as his bosses. If he gets conflicting orders from different bosses his task becomes nearly impossible. The only power the VEW has to influence his farmers is his confidence that he is able and willing to serve their interests. This power can easily be undermined if he also gets orders to collect loans, to act as a policeman, to support politicians, and so on. However, the implementation of this principle, often implies a decrease in power for the local administrators and politicians. It is understandable that they do not like this. Therefore this principle can only be implemented with strong support from the central government, especially the President's Office.

### **5. Concentration of Effort**

Another principle of the T & V system is that the extension agents should concentrate on their educational task of teaching farmers improved farm practices. Their attention should not be diverted by such chores as input distribution, loan collection, gathering statistical data and so on. They should teach their farmers, where they can get inputs or how they can get loans, but not perform these tasks themselves. There is considerable discussion whether it is indeed desirable to adhere to this principle. If the extension agent is responsible for input distribution, it is not possible to delay this work, but it is always possible to delay his educational tasks and they may be delayed forever. Also if the inputs do not arrive when they were promised, the VEW loses the confidence of his farmers. However, it is no use to teach farmers to use fertilisers or pesticides if they are not available to the farmers and it takes time to build an alternative organization which can make them available or to stimulate private enterprise to perform these tasks. That will be costly in an area of subsistence farming, where inputs are used in very small quantities. Also, the extension agents often earn part of their income from the distribution of inputs and it may not be possible to raise their salaries to compensate for the loss of income they suffer when they are no longer in charge of this task.

When the VEW talks a little about everything, he will achieve less change than when he concentrates on some important messages, which he can support by demonstrations, radio messages, extension leaflets, *inter alia*. In the fortnightly trainings, the VEWs are trained to concentrate on messages which give a considerable increase in farm income and in yields of the major crops. In this way they gain the confidence of the farmers. In the beginning, other messages and other crops and animals are neglected, unless the farmers ask for advice on them. To apply this principle, is easier for example, in the irrigated plains of Northern India, where clearly rice and wheat are the major crops than in a rain-fed area with much variation in ecological situations where farmers grow a large variety of crops and crop-livestock integration is quite important for the maintenance of soil fertility, as is often the case in Tanzania. In many African countries a crucial problem is the decrease in soil fertility through a decrease in the fallow periods. Neither the T & V system nor other extension approaches have given much attention to this difficult problem.

For developing agriculture, not only changes in production technologies are important, but also social changes. Farmers' organizations for input supply and marketing, to organise extension activities and to press for government services also play a crucial role in agricultural development. In most countries the T & V system has given little attention at teaching farmers how to organise themselves. Indonesia is an exception and that is one of the reasons for the success of agricultural development in Indonesia.

### **6. Time Bound Work**

One reason why the T & V system often works with a fortnightly training of the VEWs, is that this enables them to bring the messages the farmers need at the right time. This is relatively easy when

all farmers plant their major crops at about the same time, but it is difficult when there is a large variation in ecological situation with the result that farmers in some villages may harvest their crops, such as maize, three months earlier than in others. It is also difficult in animal production, where there is a wide large variation in, say, the time the calves are born.

### **7. Regular and Continuous Training**

Training has been quite important to improve the quality of extension work, but often it is realised less frequently than is prescribed. In an Indonesian province, only 57.5% of the fortnightly trainings had been realised mainly because of transport problems in the rainy season. Lack of travel allowances can also be a problem. In such a situation, it is better to plan a monthly training than to disappoint extension agents, who have to expend much effort to come to the training, only to learn that it is cancelled.

The quality of this training is often a problem. In situations where research is weak, trainers may read sections from the class notes they made in the university 10 years ago without a real effort to discuss how they can be applied in the actual situation in which the VEWs are working. Too often, training is also in the classroom and not in the field, where the VEWs can practice how they can demonstrate the new ideas to farmers or use role playing techniques to learn how they can convince farmers.

Another difficulty in organizing good training can be the differences in farming systems within the area. In Turkey, for example, you could have a training session for 14 VEWs of whom 11 were serving dry land farming with about 400 mm of rainfall, one serving irrigated agriculture and two having both types of farming systems. Clearly their training needs were quite different and no good solutions could be found.

### **8. Fixed Work Schedules**

In the T & V system, it is clear whom the VEW has to visit when and what the major points he should discuss with the contact farmers are. Usually, he is expected to visit them every fortnight, but a more flexible schedule might be desirable. In a village in Thailand where the farmers had recently started to grow vegetables, for example, it was felt that if they discovered a plant disease, they could not wait two weeks to decide what to do about it, therefore they paid the VEW fuel for his motorcycle and he came more frequently. On the other hand, when you have coconut gardens of 30 years old trees, which probably will continue to be there another 30 years, it is not desirable to come every two weeks with new messages, otherwise the farmers will get bored. Also during the dry season, the VEW might have little to tell or the farmer might have gone to look for a temporary job in the city. In Malaysia one said: "In the first year we could tell something of importance to the contact farmers every two weeks, but year after year this became more difficult. Therefore after five years, when the World Bank loan expired we decided to visit most farmers only some four times a year. This makes it possible to visit a larger proportion of the farmers". That is also the way the VEW in the Netherlands, work. Fixed schedules may also conflict with social obligations of the extension worker. If he does not, for example, visit the funeral of the father of a contact farmer, because he is scheduled to visit contact farmers in another village that day, he can in some cultures lose the confidence of this contact farmer.

An advantage of the fixed schedules is that it becomes easier for the supervisors to check whether the VEW does what he is supposed to do. The supervisor knows whom the VEW should visit and when, what he should teach him and which changes in knowledge and behaviour the farmer is expected to achieve. This makes it possible for the supervisor to take action when the VEW does not do or achieve what is expected of him, but only if the supervisor spends a good deal of his time among the villagers.

These fixed work schedules often result in a higher workload for the VEWs. This will be resisted unless it is compensated by higher rewards. Such a reward can be the recognition by the farmers that their VEW gives them real important help. Sometimes increased salaries are possible, because the government recognises that they have underpaid their extension agents compared to the importance of their job. If this is not possible and the salaries are low the VEW might expect that the contact farmers help him to survive by giving a small present for each visit. The reaction of the contact farmer can be to hide when the VEW approaches his farm.

## **9. Contact Farmers**

The T & V system works with contact farmers, who are supposed to be examples for their neighbours and therefore should be in many respects similar to these neighbours. Many studies found, however, that they have larger farms, are better educated, have more political power and few of them are women. These differences might make it difficult for others to follow their example and they might not be very willing to help the other farmers to solve their problems. This is not always the case. In the village in Thailand which is mentioned in section 8, the contact farmers were elected by their neighbours and they felt responsible for the progress of their group as a whole. For that reason, they met in the evening after the visit of the VEW to discuss with their group the recommendations he had given. In Zambia, the Director of Agriculture realised that much of the farming is done by women. Therefore he ordered that 50% of the contact farmers should be women. This clearly increased the number of female contact farmers even if the VEW found it easier to select men. The female contact farmers discussed their new knowledge with other women, whereas in the Zambian culture there is limited interaction between men and women. VEWs do not only visit contact farmers. Often, they spend even more time in visiting non-contact farmers. If a contact farmer is not performing his task well, he may be dropped unofficially and another farmer may be visited frequently in his place. Telling the farmer that he is dropped may create resistance. One often wonders whether it is always wise to work with contact farmers. In some African cultures, it is not accepted when somebody tries to climb above the other members of his community (Belloncle, 1989:38). In Zimbabwe, there is a good experience with working through small groups of farmers. This may be possible there, because the VEW has something of importance to tell his farmers and therefore they are willing to come together regularly for a group meeting. One member of the group might try to confirm at the request of the group, whether an innovation really works in their situation. In Europe, groups of farmers who study together how to improve their farms and invite extension agents to discuss important topics with them, play a very important role in agricultural development.

## **10. Monitoring and Evaluation**

In the T & V system, one tries to learn from experience by systematic monitoring and evaluation. This is only possible if the goals of the extension work are formulated clearly. It does not matter how much data is gathered during the monitoring, it takes a long time before the data are analysed. So long as a correct decision is made as to which data are most crucial for managerial decision making, the effort is worthwhile. Compared to the large amount of money the World Bank and others have invested in the T and V system, very little money has been invested in serious research on this system. It is very likely that investments in this kind of research could give a high rate of return.

## **11. Costs**

A complaint about the T & V system is often that it is too costly. The comparison of different extension approaches for the FAOs Global consultation did not show that T and V is more expensive than other successful approaches (FAO, 1989). Participatory approaches can also be quite costly. The T and V system often uses less expatriate advisers than other systems. The general experience is that an

extension service cannot be successful if it spends more than 60 or 70% of its budget on staff salaries, because under such conditions, not enough budget is left to enable the staff to work (Hayward, 1989). In his office, an extension agent cannot earn much for his country, but in some countries the main role of the extension service is to provide employment to educated people.

There are clear indications that investments in such an operational budget for extension, can give a good rate of return compared to other possible investments. However, most of this return will not go to the Treasury, but to the consumers and the farmers. Therefore government investments in the T and V system may only be possible if the government reduces other investments, which give a lower rate of return, e.g. in loss making parastatals and cooperatives. It is also necessary to adjust the cost level of the T & V system to the ability of the country to pay. As Tanzania has become one of the poorest countries in the world, this ability is more limited here than in say. Thailand, which has six times the per capita income of Tanzania. This is another reason why Tanzania should not copy the system from other countries.

## **12. Extension Methods**

Often the T & V system has relied almost exclusively on farm visits and demonstrations by contact farmers. One realises now that this is an expensive extension approach. Therefore one tries to combine it with other extension methods such as radio programmes and village meetings. Tanzania showed in the 1970's that such multi-media approaches can be very effective (Hall, 1978).

## **CONCLUSION**

The international experience with the T & V system shows that this system can make agricultural extension more effective on condition that one applies the basic principles in a creative way to fit the conditions and resources of Tanzania. If one copies the rules applied in India or in any other country to implement these principles it will not work.

The most important principles focus on the professionalism of the extension agents, which enables them to develop together with the farmers, solutions for their problems; the field and farmer orientation of the research and extension organization and the two-way linkage between farmers, extension agents and researchers. These last principles are often difficult to realise in a culture where (a) one is used to having people at the top deciding what is good for their people and (b) the education system has not trained the extension staff to enter into a dialogue with the farmers in order to use the knowledge from the farmers as well as from the researchers to realise the goals of the farmers better.

Therefore, some flexibility in the implementation of the rigid rules regarding trainings and visits is necessary. The experiences in various countries with the implementation of the other principles of T & V extension allude to the necessity for flexibility that is recommended for the Tanzanian T & V system.

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