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EVALUATION AND RELATED MEASURES FOR IMPROVING THE QUALITY OF TECHNICAL CO-OPERATION

SUMMARY OF FAO/UNDP EVALUATION STUDY ON AGRICULTURAL TRAINING

Report of the Administrator

Summary

This report summarizes the methodology and findings of an evaluation study carried out by UNDP and FAO on technical co-operation in agricultural training. The full report of the study has been published by FAO.

The study was primarily conducted by national institutions in the countries concerned and the advantages and drawbacks of this approach are discussed. The main conclusion was that a broader approach at the project design stage is needed to deal with Government policies and institutions affecting the utilization of trainees in order to ensure that the investment in training has a positive impact on farm production. Recommendations are made on specific factors which should be taken into account at the design stage of agricultural training projects.

I. BACKGROUND

Origin of the study

1. The United Nations system has been providing technical co-operation support for education and training in the agricultural sector of developing countries for more than 25 years in two principal forms: establishing or strengthening education and training institutions at all levels; and production-oriented agricultural projects in which the in-service training of nationals is an important component. While the majority of these projects have been executed by FAO with UNDP financing, FAO-assisted training activities funded from other sources have increased considerably. Other United Nations Agencies, primarily ILO and UNESCO, also execute training projects in related areas with UNDP financing.
2. Recently the international community has expressed concern on the extent to which benefits of improved agricultural technology aimed at increasing agricultural production are reaching farmers, especially smallholders. Two previous FAO evaluation studies of agricultural training ^{1/} concluded that while technical co-operation had increased the number of trained personnel in developing countries, it had not always clearly contributed to the ultimate objective of improving productivity leading to better standards of life for rural people. The studies identified several issues requiring further indepth examination. In many countries the pyramid of trained human resources was found to be inverted in that there are more well-qualified cadres at professional and higher technician levels than at the "front-line" level where field personnel work directly with farmers and artisanal fishermen. The studies also underlined the imperative need to focus on the training of two specific groups: women in the agricultural sector, and managerial (as distinct from technical staff) staff for implementing programmes. They advocated expanding training facilities and improvements in on-the-job training. The impact of training on food production and nutrition was stressed, as well as the development and the testing of guidelines for systematic monitoring and evaluation of training activities by the recipient countries themselves. The Nineteenth FAO Conference, in November 1977, called for further examination of these issues.
3. As part of UNDP's strengthened evaluation effort, it was agreed that a joint UNDP/FAO evaluation study of agricultural training should be undertaken to examine these issues in greater depth. A progress report on the study was given to the Governing Council at its twenty-sixth session in a Conference Room Paper (CRP.4).

Objectives and scope

4. The objective of the study was to assess the impact at the small farmer level of UNDP/FAO agricultural training activities and, based upon the observations and conclusions of the assessment, to draw up improved guidelines for agricultural training projects. The guidelines would encompass activities carried out by FAO under UNDP financing as well as those financed by the Regular Programme and Trust Fund arrangements.
5. The study reviewed the contribution which a selected group of projects has made towards meeting requirements for human resources for agricultural development. It assessed the extent to which this training reached and influenced farmers, especially

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^{1/} See FAO "Review of Field Programmes", 1972/3 and 1976/7.

small farmers, and brought about improved farming techniques; identified the factors which have positively or negatively influenced the effectiveness and impact of this assistance; and reviewed the design and execution of the projects to assess how to improve future assistance.

6. The study recognized that most agricultural technical co-operation projects contain a training element. No distinction was made between "education" and "training" since all efforts made to increase the pool of qualified cadres for agriculture are intended ultimately to have an impact on production; thus, even instruction which takes place within the country's formal education system has been considered "training" for agricultural and rural development. The study covered the range from advanced academic courses to short practically-oriented study visits; and training activities from several years to less than a week; institution building including faculties of agriculture in universities and intermediate-level schools for agricultural technicians; training as part of agricultural extension programmes; direct farmer training; projects in which training was implied but not explicitly stated in the project objectives; and those with training as the principal objective.

7. The full report of the study is being published by FAO.

II. METHODOLOGICAL APPROACH

8. It was agreed that the impact of technical co-operation could best be evaluated by means of broad country studies rather than examining individual projects in isolation. With this in mind, a balanced group of over 50 projects in several representative countries were selected covering the four major geographic regions. Five additional large-scale, long-term projects were selected for special scrutiny from the standpoint of institution building.

9. In each country, selected national institutions or national consultants were invited to carry out the study on behalf of FAO and UNDP under contract arrangements. The objective was to involve more fully national expertise and institutions in the assessment of the impact of technical assistance in their own countries and to broaden national experience and capability to undertake substantive evaluation. The evaluation of the five large-scale projects was conducted by UNDP and FAO staff members.

10. The terms of reference of the study were initially discussed with the national institutions by an FAO and/or UNDP mission. Towards the end of the study period a national workshop was held to discuss findings and recommendations. Participants included staff of the national institution implementing the study, national and international staff of the projects reviewed, other relevant Government staff and FAO and/or UNDP headquarters staff. Following the workshops, the national institutions completed their reports on the projects evaluated.

11. The experience in carrying out an evaluation through contractual arrangements with national institutions proved positive. Benefits were derived from full involvement of national personnel and institutions in the form of development of indigenous evaluation experience and capability, and the enhancement of the status of the institutions involved as contractors for United Nations Agencies. The costs were lower than they would have been if international staff and consultants had been used.

Some logistic difficulties arose, however, and the wide variation among country reports in approach and depth of analysis made it somewhat difficult to draw overall conclusions. To some extent these problems could have been avoided by closer and more continuous interaction between the FAO and UNDP personnel responsible for the evaluation study on the one hand, and the staff of the national organizations, on the other. However, this would have offset somewhat the advantage of lower costs.

III. FINDINGS AND CONCLUSIONS

Qualitative evaluation of technical co-operation

12. The identification of beneficiaries is a first and essential step in designing a training project. This prerequisite appears to have been satisfactorily carried out in many of the projects examined, notably in Kenya, Mexico, Peru, the Philippines, Thailand and Tunisia. In some institution-building projects, however, the process of defining the ultimate beneficiaries has proven complex and has been less successfully carried out. Training institutions in developing countries need to place greater emphasis on the socio-economic aspects of agricultural development than do those in more technologically advanced societies, since trainees must be taught to deal with problems at the primary producer level rather than at the level of sophisticated developments in agricultural science.
13. The study confirms the importance of the careful selection of trainees. Important criteria for their selection include: vocational motivation (in one country, it was reported that many of the trainees had not actually wanted to pursue agriculture, but had taken it as a last resort opportunity to achieve higher educational status); background (preferably rural field personnel rather than those raised in urban environments or civil servants in central ministries); and level of formal and informal preparation and ability to absorb training (including familiarising them with the purpose of the training offered). The most important criteria for extension staff or other trainees expected to become trainers is that they should be acceptable to the beneficiaries in terms of ethnic or language group of the farmers concerned.
14. The contents of training programmes were generally found to be satisfactory. However, practical preparation at some training institutions was inadequate and teaching ability was sometimes deficient. Participation of the trainees in preparing training curricula might serve to increase their level of involvement in the programmes.
15. Farmer training should be carefully designed to relate directly to the farm family's actual production and basic economic and social needs. It is also essential that the timing of training courses should not interfere with work on the farm. Effectiveness depends largely on the trainer's teaching ability and on the training aids and demonstration materials available. Audio-visual technology is not yet widely used although there is evidence that it is well received by farmers. The often-cited problem of maintaining equipment was successfully solved in some cases.
16. Training activities within a project with multiple objectives were hampered in many cases where training was overshadowed by pressures on national and international staff to achieve the non-training objectives.

17. Fellowship programmes were found satisfactory to the trainees as a whole. Some problem areas were identified: excessive focus on advanced technology; poor adaptation to local conditions; unfamiliarity with the language of instruction; and disaffection among some trainees who, because of the career structure of many Governments, would have preferred to achieve a formal degree leading to promotion rather than to acquire less academic skills which were more appropriate to the task for which they are being trained.
18. Many of the country and project studies did not explicitly refer to the extent to which training involved women. There was evidence that the level of participation by rural women in field training projects is considerably lower than that of rural men, in spite of the fact that in many places women are playing a significant role in agricultural production. Some projects did not involve women at any level, and in others the poorest women were excluded and frequently were not even mentioned as a target group when the project was designed. Nevertheless, some training projects in Kenya, Mexico and Tunisia did give special attention to the training of rural women.
19. In projects dealing with the establishment or strengthening of training institutions, completion of physical facilities was not always a prerequisite to recruitment of international staff and commencement of operations and this sometimes resulted in costly delays. Significant savings were achieved in some cases by designing projects to include trainees from several countries, thereby avoiding needless duplication of facilities.
20. The number of trainees was found to be satisfactory in most projects. The effectiveness and reputation of a training institution, however, depends heavily on the quality of the training given and on the recognition accorded to its degrees and diplomas by employers and especially by the Government. In many instances it was found that to build up the status of an institution and to enable it to reach an adequate level of maturity, external support after completion of project assistance was necessary. One to two decades may be needed to establish a truly viable training institution.

Evaluation of the effectiveness and post-training impact of agricultural training projects

21. While there is relatively little information on what had happened to middle and lower level trainees, what evidence there is suggests that the majority were engaged in activities for which they had been trained. In many cases, however, the effectiveness of the trainees on the job appears to have been seriously impaired by lack of transport, office space and/or insufficient facilities for field trials and demonstrations. There was evidence that some national trainees who had received high-level training were able to obtain more rewarding employment outside of the specific field for which they were trained. Better salary and career incentives are often offered by Agencies and/or commercial/industrial concerns outside of Government service.
22. In some projects, increased knowledge has been transmitted from international experts through national staff to the farmers/producers; consequently, the multiplier effect had worked exactly as intended and technical co-operation had achieved its purpose. Good examples of this were found in Kenya, Peru, the Philippines, Thailand and Tunisia. Unfortunately, there are also cases where this

did not occur; the causes were either deficiencies in Government policies, gaps in institutional linkages or lack of follow-up in training. Former trainees complained that they did not have the resources to apply their training in practice, that they were not offered increased responsibilities, and that their employers seemingly showed little interest in how their training was applied.

23. A prerequisite for rural development is the existence of extension and other support services that link the institutions involved directly with small farmers. Consequently, if training is to have a significant impact at the level of primary producers, it must contribute to strengthening these institutions, ranging from those concerned with disseminating research findings to those involved in providing inputs to the farmers, including credit, marketing advice and support. Deficiencies in this framework of institutional linkages were often found to have hampered the effectiveness of technical and farmer training efforts.

24. In some countries, extension networks tend to be commodity-oriented; i.e., they provide assistance to farmers producing only certain crops, often for export rather than for the most common food crops. This may be confusing for the farmer who is visited by several extension agents for his various cash crops, and none for those crops he consumes on his farm or produces for local consumption. The impact of the trained extension agent may be significantly weakened by this type of approach to the problem.

25. The absence of Government policies conducive to rural development does not necessarily preclude the establishment of institutions for rural development, but it may render the institutions less than fully effective. Likewise, Governments may express good intentions in their agricultural plans and policies which are not matched by a corresponding institutional capacity for implementation. In such cases, training projects have often worked well in increasing the availability of trained human resources, but have had only a limited impact on rural development.

26. To assess the impact of training in terms of positive changes at the primary production level is a particularly difficult proposition. Although training is essential, in most cases it will not in itself suffice to attain appreciable development targets. Nevertheless, some of the projects studied had a clearly identifiable impact, although this was not always quantifiable. While the evidence is incomplete, enough information was collected to form a judgement on 31 of the projects in the sample: it appears that 22 may be said to have had some impact, while only nine clearly did not. The projects found to have had an impact were mostly concentrated in a few countries - Kenya, the Philippines and Tunisia - where development policies are generally conducive to rural development, where the requisite institutional linkages are in place, and where an exodus of trained personnel does not appear to present a serious problem.

27. Training for the forestry and fisheries sectors presents specific and different problems since historically activities have been concentrated largely in the hands of the Government or large private enterprises and, consequently, training requirements are usually closely linked to national policy decisions. Impact is better measured in terms of enhanced national capacity for rational resource management rather than in increased or improved production. There was evidence that such impact has taken place in several instances.

28. Finally, the monetary value of FAO/UNDP technical assistance is usually small in relation to the total development effort undertaken with external and national financial support. While there is little evidence on whether many of the projects had effective linkages or overlap with other projects, it does appear that in many cases assistance had a catalytic effect when carried out within larger programmes of integrated rural development funded from other sources.

IV. RECOMMENDATIONS FOR FUTURE ACTION IN THE FIELD OF AGRICULTURAL TRAINING

29. The study revealed a number of shortcomings in training projects that may be traced back to the inadequacies of procedures for project formulation and failure to incorporate experience gained in earlier projects. It indicated ways in which FAO and UNDP, in addition to improving their own performances, may also more effectively assist and advise countries on the essential complementary actions required to ensure that future technical co-operation will achieve its intended purpose.

30. Preparation for training activities should start with a review of Government policies and an analysis of production constraints at the farm level. If necessary, assistance should be provided to the Government to define, refine or formulate its agricultural development policies. The intended beneficiaries and the means of assisting them should be identified in line with the Government's priorities. The analysis should then proceed to a review of the institutions engaged in agricultural development, in particular extension services, organizations for credit, suppliers of inputs, marketing units (including farmers' and fishermen's associations and co-operatives), and supporting research and training institutions. The staffing patterns of the institutions should be studied and the appropriate level of staff training determined. It is preferable that this phase of comprehensive data collection and factor analysis be implemented under a preparatory assistance project which can undertake the necessary human resources study rather than through a brief mission as is too often the case.

31. On the basis of available human resources statistics and surveys, a forecast of future requirements in the agricultural sector should be made and the need for new types of trained human resources should be assessed. Even though such a forecast may be very tentative, it should be possible to make a useful estimate of the nature, scope and level of the training programme required and/or the most appropriate size of the institution to be created or strengthened.

32. Some objectives can only be realized if certain basic requirements outside the scope of the project are met. For example, extension services may have to provide the financing required to expand and improve their services, and Government employment conditions and career incentives will need to be sufficiently attractive for trainees at all levels to remain on the job. This type of assumption, usually implicit in project documents, should be subjected to more scrutiny as part of the project preparation exercise.

33. The expected impact at the producer level, as a result of incorporating trainees into an institutional framework which is properly linked to the farmers/producers, should be analyzed and quantified as far as possible. A plan for monitoring and evaluating the project should be included in the project document, describing how and by whom measurement is to be carried out and on the basis of what indicators.

34. The existing UNDP guidelines for the preparation of projects attempt to cover all types of technical co-operation in one format. New guidelines for project formulation need to be prepared specifically for the different subject matter areas covered by this evaluation.

35. The process of project design would be greatly facilitated by greater involvement of national project personnel from the earliest stages. Where training is still heavily dependent on international personnel and overseas fellowships, non-national experts need more intensive briefing in the techniques of adult education and training methodology which are appropriate to the country before they take up their assignments. Better definition of assignments of international experts is needed. In cases where Governments prefer to give international experts assignments that preclude a significant effort to train national staff, this should be recognized at the outset. In projects where training is only one of several objectives, the time and resources to be devoted to training should be clearly spelled out. More attention is often needed to develop appropriate training materials.

36. The selection criteria for trainees should be explicitly stated in the project document.

37. The impact of training could be enhanced if trainees were better prepared for the task of passing on their knowledge after their training is completed. During follow-up, trainees' views would be sought on their training and its relationship to their duties; this analysis could provide a basis for evaluating and modifying future programmes. Follow-up could be organized in the form of seminars with former fellowship holders or in-service trainees.

38. Training institutions' projects also often require follow-up. Short-term consultants (in some cases the experts who assisted in establishing the institution) may need to be funded for several years after the formal termination of the project. While it is difficult to set guidelines for follow-up to short seminars and training courses, the question of follow-up should be addressed at the time of preparation of the training course to ensure that training is being effectively utilized.

39. The participation of women should be increased in training activities, both as field experts and as trainees. Greater participation would be facilitated if more trainers were women and vigorous action is needed to recruit female field experts. More women should also be included in project identification and preparation work, and vigorous action is needed to correct the under-representation of women as fellowship holders.

40. Finally, realistic time perspective must be set to achieve the institution-building objectives and to evaluate the over-all impact of agricultural training projects, taking into account the normally deferred effectiveness of agricultural training programmes and the need to allow for maturation of agricultural training institutions. In the case of some of the least endowed countries, it should be recognized that external assistance in some form may be required for an extended period.