

## QUALITY MANAGEMENT IN AGRICULTURAL RESEARCH IN THE KERALA AGRICULTURAL UNIVERSITY: PROBLEMS AND PROSPECTS

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**Abstract:** The study was conducted with the objective of analyzing the problems related to quality management in agricultural research in the Kerala Agricultural University. The respondents of the study included 55 agricultural scientists who were the principal investigators of the externally aided projects completed after 1995 in the central zone of the university. The results showed that inadequate and insufficient mechanism for planning and determining research priorities and cumbersome and time consuming procedures for committing and using research funds were perceived as the most important problems related to quality management in agricultural research in the Kerala Agricultural University.

**Key words:** Agricultural research, problems, quality management.

### INTRODUCTION

Research is one of the prime responsibilities of an agricultural university. Despite a sizeable proportion of our country's financial outlay for agriculture is going for research endeavours, little attention is given to standardize a quality management system in agricultural research. There is a growing feeling that in order to accelerate the rate of progress in Indian agriculture, we will have to get a breakthrough in the efforts to improve the quality of agricultural research. Moreover, it is accepted that success in research depends to a very large extent on the abilities and motivation of the individual scientist as well as the opportunities afforded to him for carrying out his work within a favourable environment. Keeping this in view, an analysis of the problems related to quality management in agricultural research in the Kerala Agricultural University is attempted in the present study.

### MATERIALS AND METHODS

Based on discussions with agricultural scientists in the university, the major problems, which may influence the quality of agricultural research in the Kerala Agricultural University, were identified. These problems were listed and subjected to relevancy rating by the scientists handling research projects in the central zone of the university. Finally 55 scientists formed the respondents of the study. The response to each problem was obtained in a 3-point continuum: 'more relevant', 'relevant' and 'less relevant' with weights 3, 2 and 1 respectively. Relevancy coefficients for each problem was worked out by dividing the total score obtained for each problem with the total possible score. Based on these

values the problems were ranked. The problems along with their relevancy coefficients are presented in Table 1.

### RESULTS AND DISCUSSION

Table 1 reveals that the respondents perceived "inadequate and insufficient mechanism for planning and determining research priorities" and "cumbersome and time consuming procedures for committing and using research funds" as the most important problems related to quality management in agricultural research in the Kerala Agricultural University. Planning and determining research priorities is a vital step in the research policy formulation of any research organization. Hence it is imperative that the University has a sound and scientific mechanism to determine the research priorities. As a first step, the vision and mission for the university are to be defined. Once the vision is in place, the mission has to be set in motion by translating it into appropriate policies and procedures. Operationalization of the agreed goals, roles and functions in terms of specific research projects and matching of the same with available manpower resources and opportunities is the next step. Finally, adoption of a strategy for executing this plan down to its finest detail has to be done. Currently, scientists appear to be agreed that such a fluent mechanism for goal-oriented progress in research is conspicuously lacking in the university. Lack of an effective tool to assess the research productivity and an inadequate mechanism for monitoring and evaluation of research work emerged as the next important problems related to quality management in agricultural research in the Kerala Agricultural University. In most of the technology systems

Table 1. Problems related to quality management in agricultural research in KAU (n = 55)

Sl. No.	Problems	Relevancy coefficient	Rank
1	Inadequate opportunities for exposure to modern scientific fields	0.79	IV
2	Insufficient training of research personnel to improve their professional competence	0.79	IV
3	Inadequate and insufficient mechanism for planning and determining research priorities	0.84	I
4	Cumbersome and time consuming procedures for committing and using research funds	0.84	I
5	Lack of an integrated and multi-disciplinary approach in project selection and implementation	0.80	III
6	Inadequate infrastructure to carry out the research works	0.77	V
7	Manpower constraints	0.77	V
8	Lack of proper guidance and support from experts for implementing the research projects	0.65	VII
9	Too much non-research assignments for research scientists, such as administrative work	0.79	IV
10	Inadequate and defective mechanism for monitoring and periodical evaluation of research work	0.82	II
11	Lack of an effective tool to assess the research productivity	0.82	II
12	Inadequate reward systems to attract and motivate the researches	0.80	III
13	No consideration of the researcher's aptitude in assigning the research projects	0.68	VI
14	Bureaucratic and political interference in various research activities	0.59	VIII

the number of research publications are used as an indicator of scientific productivity. But use of publications as a major index of scientific productivity has been strongly criticized in that the efficiency of any research set up must be determined by the extent to which the technology can be applied for development rather than its worth for publication. However, an objective and critical evaluation of any research activity is difficult since the process of evaluating research is seldom standardized. It would be a formidable task to combine the various components of scientific productivity into a single meaningful measure. Satapathy and Choudhary (1990) concluded that the parameters for measurement of scientific productivity among farm scientists consisted of the following factors in the order of descending importance; production of specific technology, acceptance of the technology by the farmers, publication of results in local newspapers, inclusion of the findings in the package of practices, publication of research papers of state/national/international level, feedback for details by the users, guiding of Ph.D and M.Sc. scholars, presentation of scientific papers, reference of research work by other scientists, number of projects completed, recognition of research work by way of reward/award and writ-

ing of technical books. The management should reach a consensus on these parameters, which can be used as an effective tool for assessing the research productivity.

Monitoring and evaluation of research work may be adopted as a strategy to ensure quality of agricultural research in the Kerala Agricultural University. A monitoring cell can be established for this purpose.

"Lack of an integrated and multidisciplinary approach in project selection and implementation" and "inadequate reward systems to attract and motivate the researches" were rated as the next two important problems related to quality management in agricultural research. The need for interdisciplinary co-operation on complex, problem oriented projects is widely advocated. The university should reorient its research policy in this direction, which would help to evolve a system approach in agricultural research. The reward systems currently in vogue are not generally compatible with the goals of the technology systems. In the present reward system, which is based mainly on the number of scientific articles published, practical pamphlets and bulletins aimed at technology transfer to farmers

are given little attention while assessment. Moreover, no specific mechanism exists to encourage researchers to produce this type of information. Researchers gain little or no peer recognition for working effectively with transfer of technology. As Eponou (1993) reported, management should design new systems that reward technology generation and transfer, rather than scientific publication.

Regarding the other problems related to quality management in agricultural research, the imaginative and competent research administration in the Kerala Agricultural University would have to be geared into action in the following measures.

(1) Continuous professional improvement of the available scientific talent in the university

through providing opportunities for exposure to modern scientific fields and also providing adequate training for the research personnel.

(2) Make available of adequate manpower and infrastructure to carry out the research works in time.

(3) The research personnel should be exempted from non-research tasks like administrative work so that they can concentrate more on the actual research work

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