CHAPTER 3

SCOPE, OBJECTIVES AND HYPOTHESIS

As indicated at the end of the first chapter, the present study focuses its attention on the 'Role of Library in Enhancing Agricultural Research and Education'.

Generally speaking, the role of library in any research and teaching endeavour is very significant. It is such an obvious matter that it does not need any proof or evidence. However, in the light of what was stated in the last paragraph of the previous chapter (the highlighted portion), it would be wrong to take the role of libraries for granted, and ignore it.

Library is an important link in the process of communication between the author and the readers. Libraries are no longer just places where books are housed. If the library has to work effectively, it is necessary that it should understand both providers and consumers of information. The task becomes complex because of the following three reasons:

1. The much talked about information explosion;
2. Information being available in other than the mere book medium. Journal articles, microfilms, fisches and the other audio-video materials and magnetic medium such as CD-ROM, Floppy Disks have invaded the library scenario; and

3. The need and thrust on inter-disciplinary research being the order of the day.

In the light of these factors, it is necessary to review the role of library in agricultural research and education. This is the context and the overall objective of the study. What exactly is done by the libraries in enhancing the agricultural research and education? What does one mean by enhancing? Is it in terms of quality or quantity or in terms of time? Answers to a host of such questions comprises the statements of scope of the study in unambiguous terms.

3.1 Scope of the Study

The study probes into the information requirements of the teachers and researchers in agricultural sciences. If the library has to play its role in research and education properly, the staff of the library should know the requirements and the information seeking behaviour of the clientele. Also, it is necessary for the clientele or users to know the capabilities of
the library and its staff. This is done by conducting need-based orientation courses from time-to-time and by maintaining cordial relationship with the user community. Either way, the ball lies in the librarians' court. They have to initiate the action towards promoting the use of their library. They have to reach-out to their users. In other words, the role of libraries can be quantified by relating the capabilities of librarians to their users' needs. This exercise is done by clearly stating the functional connotations of some of the terms in the title. The following are some such explanations in this study.

Role of Libraries: This means what libraries have or do, to enhance research and education in agricultural sciences. Thus, focus will be on the activities that directly or indirectly relate to research and education. Although the word 'library' appearing in the title is singular, it is representative of all agricultural libraries in India. Therefore, it is used throughout the text sometimes as 'Libraries' and sometimes as just 'Library'.

Enhance: The word enhance has two connotations viz., increase and improve. Speaking in
In terms of research and education, the meaning of 'increase' and 'improve' have to be made clear.

Improving research or the quality of research can be achieved by

a. Avoiding duplication;
b. Accelerating the process of research; and
c. Providing all the necessary information and assistance from the stage of formulation of the problem to the final production of the report.

These are the areas where improving the quality of research is within the realm of libraries.

Quality of Education is improved by

a. Providing up-to-date information on pure and inter-disciplinary subjects, leading to allround growth of students;
b. Providing audio-visual teaching-aids, leads to the deeper understanding of
subjects being taught; and

c. Providing adequate number of text books and other reference materials, so that the students catch-up with what is being taught in the class rooms.

The library can be of immense value in these areas to improve the quality of education. The other connotation of the word enhance, viz., 'increase', is not directly relevant in this context. However, when quality of education improves and the research projects of high quality are completed on time, more and more people are taken to research.

Agricultural Education is considered to be encompassing all the education programmes leading to graduation and post-graduation in the jurisdiction of an agricultural university. It also includes many extension programmes where the scientists explain the newer methods to the farmers.
All activities of research stations, writing of papers for conferences or publication and working towards Ph.D. programmes are considered as research. However, preparation of any project work or field work or writing a dissertation as a partial fulfilment of graduation or post-graduation is not considered as research for the purpose of this study. These activities are part of educational programme. On the other hand, guiding for Ph.D. is considered a research activity.

Disciplines such as Agriculture, Agricultural Engineering, Forestry, Horticulture, Dairy Science, Poultry Science, Veterinary Science and Home Science are included under the purview of agricultural sciences. Besides subjects such as Botany, Zoology, Chemistry etc are also included as Basic Sciences. The experts in all these sciences are collectively referred as farm scientists in the course of this study.
In the light of all these functional definitions, the subject of the present study, 'Role of Libraries in Enhancing Agricultural Research and Education' would simply mean to enquire how exactly do libraries improve the quality of agricultural education and research in the jurisdiction of an agricultural university.

In any systematic and scientific study it is necessary to formulate specific objectives. The next step in the study is to formulate or state the objectives.

3.2 Objectives

1. To arrive at a profile of a typical farm scientist involved in teaching and/or research.

2. To know the extent to which the farm scientists depend on the university library in relation to the other resource centres.

3. To know what type of documents are preferred by the farm scientists.

4. To understand the purpose for which the farm scientists use the library.

5. To know the effect of various factors that influence the information need.
6. To know the various perceptions of the farm scientists regarding the library, its stock, services and staff.

7. To know the strengths and weaknesses of the library as a result of objectives 1-6.

8. To deduce means and methods of improving the library's performance based on objective 7.

These objectives help the investigator to conduct the study towards a specific goal. The next step in the scientific research is to formulate a hypothesis.

3.3 Hypothesis

Hypothesis is an important ingredient of scientific research. Funk and Wagnalls' *New Standard Dictionary* defines hypothesis as:

1. "...a statement of fact or of theory which, without itself having been proved, is taken for granted as a premise from which to test or discover an assured conclusion...."

2. "... a tentative conjecture assigning provisionally a cause for known facts, to be used as a basis for their arrangement and classification, and as a starting-point for experiment and investigation which, by the discovery
of new facts, may uphold or disprove the conjecture, and
aid in reaching the true theory...."

3. "... a comprehensive tentative explanation of certain
phenomena which is meant to include all other facts of
the same class, and which is assumed as true till there
has been opportunity to bring all the related facts into
comparison; if the hypothesis explains all the facts,
it is regarded as verified, till then it is regarded as
a working hypothesis...."

All these definitions suggest that hypothesis is a statement
expressing a relationship. "The ideal relationship to be
expressed as an hypothesis is one which is universal, invariant
1 and causal". This, in the light of above definitions means,
that hypothesis should be universal statement which should not
change with time, which should have a cause and effect
relationship in it. This, in short means, it is an expression
of relationship in terms of dependent and independent variables,
which encompass all the objectives.

Further, there is a dichotomy. "In inductive statistics,
hypotheses are of two sorts; the research hypothesis and the

1. Herbert Goldhor, Introduction to Scientific Research in Librarianship,
(1972), p. 57.
null hypothesis. While both are used in research, null hypothesis needs more statistical rigour to accept or reject it. On the other hand, the research hypothesis is proved more by logical discussions. The null hypothesis is stated in negative terms to see that it is rejected. However, a "...research hypothesis consists of a guess or hunch about something expressed as a declarative sentence."

All the objectives of the present study stated are based on one major question, viz., do farm scientists really make good use of the library service? Perhaps, the answer is an emphatic "No". But, in research nothing can be accepted without evidence. The available data should be subjected to rigorous analysis. Therefore, it was decided to work on the research hypothesis, "The farm scientists do not use library to its full capacity because they do not know its potentials".

This hypothesis will be proved or disproved. The next step should be to decide and describe the method adopted to collect data and the sample selected. But, since the entire focus is on user and use of the library, it is necessary to acquire some understanding about marketing of library services before deciding

3. Ibid.
the exact method of research. Therefore, the next chapter gives
the outline of marketing of library services.