

### Research in Extension: It is time to introspect



*Though the field of extension globally has moved beyond technology transfer to facilitation, learning, organising and building networks, extension research in India is still stuck in studying technology transfer, per se. Moreover, extension research has never received adequate attention from practitioners, managers and faculty in extension. Lack of adequate field-oriented research and poor professional standards in research have considerably eroded the credibility of extension research and practice. It*

*is time to introspect and take corrective measures, argues Dr R. M. Prasad.*

In research, knowledge is acquired using scientific method. Scientific method is a body of approaches and tools for investigating a phenomenon and acquiring new knowledge as well as for verifying, correcting and integrating previous knowledge. It is based on gathering observable, empirical, measurable evidence, subject to the principles of reasoning. Growth of any discipline is directly proportional to the creation of knowledge in that discipline. Research is the means for creation of knowledge. Extension research proposes specific hypotheses as explanations of social phenomena and design studies that test these predictions for accuracy (Box 1).

#### **Box 1: Types of extension research**

*Exploratory research:* Extension research has to move beyond exploratory research, which answers “What is where?” The results of exploratory research are however not usually useful for decision making by themselves. *Descriptive research* answers the question “What is what?” Extension research employs three main types of descriptive methods- observational methods, case study methods and survey methods. Here, it is to be borne in mind that descriptive methods can only describe a set of observations or the data collected, but cannot draw conclusions from that data about which way the relationship exists.

*Explanatory research* has to be employed to know the cause and effect relationship. Though extension scientists use different statistical tools to explain the cause-effect interaction, in many cases, the relationships are not properly inferred and explained, which presents only loose inferences, which may not be valid. *Experimental research* can be employed to present strong evidence for causal interpretation. One important feature that differentiates experimental research from explanatory research is that instead of simply measuring two variables, the researcher can manipulate one of them in the case of experimental research. Extraneous variables can also be controlled in experimental research. Extension, being a discipline which has drawn its contents from various other disciplines, there is much scope and space for inter-disciplinary research in extension. However, extension research hasn’t exploited this possibility fully. Though the field of extension globally has moved beyond technology transfer to facilitation, learning, organising and building networks with a wide range of other agencies, extension research in India is still stuck in studying technology transfer. For instance, most of the research in extension in India conceive extension’s role purely in terms of knowledge extended or transferred, whereas globally its role is increasingly recognised in terms of creating knowledge (Warner et al, 1998) strengthening innovation process (Sulaiman and Hall, 2002) and in participatory action research (Pretoda, 2009).

The research process has to be objective so that the scientists do not bias the interpretation of the results or change the results outright. But as extension professionals have we paid adequate attention to extension research?

Extension research in India mainly faces two major challenges, namely inadequacy of research and poor professional standards.

### **Inadequacy of research**

We have to openly admit that we are not doing adequate research in extension. For instance organisations that have resources, mandate and personnel at the national level such as the National Institute of Agricultural Extension Management (MANAGE) or the ICAR (Indian Council of Agricultural Research) Extension Division have done very little research on extension. Extension research in ICAR research centres mostly revolves around transfer of specific technologies the centres have developed. There is no All India Co-ordinated Research in Extension, where as ICAR has several such projects in other disciplines.



Extension research undertaken by Deemed Universities and State Agricultural Universities in India is largely confined to research by the post-graduate (M.Sc and PhD) students. In this context, it is to be highlighted that under NATP and NAIP scheme of ICAR, there were some innovative and field oriented research projects in extension undertaken by our extension scientists. However, compared to research output of other disciplines, contribution of extension research has been very limited.

### **Poor professional standards**

There has been a general decline in scientific rigour in most of the extension research. The following points illustrate why this is happening.

- In many cases, the problems selected for research in the field of Extension are based on convenience, easiness in conducting research and replica of studies already conducted elsewhere. Original, field-oriented and need based research for addressing the problems and the results of which could give directions for policy, etc are either lacking or are too little.
- In the case of post graduate (student) research, students often select research problems that have been studied earlier by other researchers, and pursue their research by changing the crop

or locale or sampling unit of the previously studied problem. In many cases, even the results of the study and discussion are merely copied as such from the original.

- Ideally, the “review of literature” establishes the context of the research and introduces insights into the range of techniques and tools that are relevant for the topic under study. However, in practice, the literature review quite often lacks rigour and consistency, context and breadth, clarity and brevity and effective analysis and synthesis. This results in improper ‘theoretical orientation’ which affects the results of the research.
- Selection of a pilot site and conducting a pilot test using each data gathering method will help in obtaining better results. But, it is observed that in many cases, conduct of pilot study at the field level is not done, and is shown in the report as being done (just for the sake of reporting).
- The results of the study are often analysed without considering the suitability of the test and its relevance. Many of the extension researchers are interested in getting the results analysed using many tests and preparing large number of tables. However, in many cases, the results are not properly explained or interpreted. This often happens because the researcher feels that his/her quality of research can be enhanced only by using more number of statistical tests and presenting the results using many tables.
- Discussion on the results in large number of cases is quite shallow, superficial and not supported by theories or relevant concepts. The readability of the discussion chapter in many theses/ research reports is very poor and is merely a repetition of the findings in many cases.
- The research reports are prepared by the researchers in a routine and mechanical way, and many a times, it is observed that sincere attempt is not made to make the reports meaningful to the target users. The form, content and style of the research report should be chosen to suit the level of understanding, experience and interest of the targeted users as well as to make the readers to apply the findings in their respective areas. However, this is not seen in many of the research reports prepared by the extension scientists.

Another serious problem related to extension research is the limited presence of extension research in reputed peer-reviewed international multi-disciplinary journals such as Agricultural Systems, Outlook on Agriculture or Rural Sociology as well as international extension journals such as Journal of Agricultural Education and Extension (JAE) and Journal of International Agricultural and Extension Education. Even those who are engaged in quality research in extension pay very little attention to publishing their research outputs in some of these reputed journals.

Apart from these, lack of functional integration between extension research and field extension; low attention to professional ethics and standards; absence of inter-disciplinary research projects; continued use of outdated scales and tests and lack of drive to use advanced social science research methods have all led to declining credibility of this important and vibrant discipline.



## Way Forward

- Identify new and relevant areas for extension research: Social capital, cash transfer, micro finance, convergence as a social process, management of CPRs, climate change adaptation, public private partnerships, livelihood analysis, organisational learning and agricultural innovation systems are some new areas that need adequate research.
- Extension research should cover all the following types of research and these include, *basic research* (inquiry focused on basic concepts and theories with a view to revisiting the existing concepts/theories and developing new theories), *developmental research* (contributing to the development of the discipline by way of developing innovative methodologies, good practices, effective tools of measurement etc); *adaptive research* (studying the applicability and usefulness of the new practices, tools developed, etc and testing their effectiveness); *academic research* (focusing on the process and methods of developing tests, scales and new approaches in the field of extension); *applied research* (focusing on the problems of conducting research in terms of data collection tools, measurement, experimentation, etc)
- Initiate network projects and coordinated projects for Extension research
- Earmark 10 percent of the funds of MANAGE, Extension Education Institutes (EEl)s and State Agricultural Management Extension and Training Institutes (SAMETI) for conducting research on extension.
- Organise refresher courses on research methodology for teachers, scientists and doctoral students.
- Encourage and enforce a rigorous system for screening research articles/proposals, and organising peer reviews so as to conform to professional scientific standards in research.

## References

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