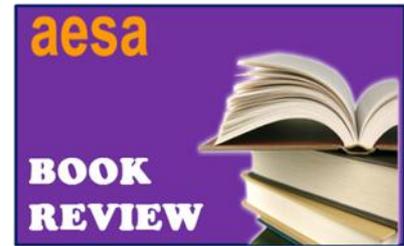


## Agricultural Extension in South Asia

### MANUAL ON GOOD PRACTICES IN EXTENSION RESEARCH AND EVALUATION

AESA, ICAR-NAARM, CRISP, ICAR-CTCRI and MANAGE (2017)  
255 Pages



Quality research is sine qua non to the growth and development of any profession including extension. In India, the credibility of extension research is at stake mainly due to poor quality research. One needs to follow sound methodology, which is a prerequisite for quality research. Unfortunately, with limited books and resources in Extension Research, teachers and students are constrained to learn and employ advanced techniques and methods. “The manual on good practices in extension research and evaluation” published recently by AESA will fulfil the long term demand for a good book and help build the capacity of extension professionals by sharpening their skills in research methodology.



The manual comprises 26 modules written by 13 eminent scholars. Every module is self standing and presented with objectives, brief introduction followed by discussion, key points for easy recollection and important references. The manual has a nice introduction that highlights the importance of quality research and the steps one should follow to conduct quality research. Classification of different research designs used in extension studies, and various methods and techniques employed in quantitative, qualitative and mixed designs are presented in the second module.

The next module deals with the most important construct conceptualisation process with a brief description on the role of theory in extension research, classification of variables and different types of hypotheses with suitable examples. At the end, there are useful tips for writing good research objectives. Majority of the extension researchers select a research topic based on past studies, students’ theses, field experience, etc., and this approach has a serious limitation of stereotype output, which lacks field application. Thematic analysis is developed as a tool for construct conceptualisation and the same is described in 10 simple steps with an example, “What are the factors which influence computer utilization behaviour of SMSs in the KVK?” This analytical tool, which has several advantages, is being widely used in management science, and extension professionals can take advantage of.

The most problematic aspects in sampling, data preparation and SPSS package are presented in a very easy and simple manner that’s comprehensible by any student. The manual presents methods to control or mitigate general biases and errors committed by investigators while collecting data. The pervasive question that’s gaining momentum these days is How to use the “Online data collection”? This method is given in module 10. The researchers usually face the problem of missing data and quite often than not realise several problems after subjecting the

data for analysis. This is mainly due to the negligence on the part of researcher to check, clean and prepare the data before analysing it. These issues are addressed in three modules on data exploration and preparation.

The module on Statistical designs provides a comprehensive idea on various statistical tools available for data analysis and the necessary guidelines to choose an appropriate tool for the research. Data interpretation, drawing inferences and conclusions, and important aspects in research are described in module 15. Focus Group Discussion, a qualitative method to collect data is contained in module 16. The steps to be adopted to conduct Focus Group Discussion and the methods to analyse such data are presented in this module. The advantages in employing Case study approach to study social phenomenon and the methodology to conduct it are well expressed in this manual. The ethical considerations while collecting data from various respondents (human subjects) are new to many Indian researchers, but it's worth following them. This sensible aspect is introduced in module 18.

In India, several studies were conducted on the extent of adoption of agricultural technologies and factors, which influence it by using Logit model. This module describes the limitation of Logit model and introduces more advanced and appropriate models (multinomial logit and ordinal logit) to identify the factors, which influence the adoption of agricultural technologies. These models have to be applied to improve the quality of adoption studies.

Scale construction is an important area where the investigators have scope to improve their skills to measure the socio psychological phenomenon qualitatively. This topic is spread across four modules, which provide detailed procedures to develop scales. Most of the extension researchers follow the Likert's summated rating technique to develop scales especially to study attitudes. The development of summated scale through a modified approach, which uses exploratory factor analysis for identification of initial factors, is delineated nicely. A structural equation model for developing summated rating scales is also introduced to the readers. These approaches if adopted properly by the researchers can certainly bring in qualitative changes in scale construction.

Few other weak areas in extension research are programme planning, monitoring and evaluation. Many extension professionals especially the field functionaries plan and implement several extension programmes but they do not know the methods to evaluate them and assess their impact. This manual gives detailed procedures for evaluating extension programmes by using Log Frame Analysis and Bennett's hierarchy, which take into account inputs, outputs and outcomes of extension programmes. This module is followed by advanced methods to assess the socio-economic impact of agricultural technologies. These two modules help the researchers to evaluate extension programmes and assess the socio-economic impact of technologies, which are absolutely necessary to provide the evidence to donors and policy makers.

Conducting good quality research and publishing its results in high rated journals is very important for the professional development of the researchers. Unfortunately, extension professionals are not prolific in publishing their research output in peer reviewed journals. The module on publishing extension research, guides the readers in preparing good manuscripts for publication. It also contains some common reasons for rejection of articles.

A brief idea on the need for multidisciplinary approach in extension and some of the themes that necessitate its use are explained in the last module. At the end, the editors indicated some of their interventions that are being implemented involving various extension organisations with a penchant quest to improve the quality of extension research.

The manual is very comprehensive with good examples and illustrations that are extremely useful to any social scientist or student who is interested in quality research. The teachers and the students of social sciences, especially in extension, are very weak in research methodology resulting in producing poor quality students as well as poor quality research. As the saying goes, “A second grade teacher can produce a third grade student.” Many Indian students are finding it difficult to follow the books on research methodology, especially those written by foreign authors. I am sure that this manual will fill this gap and benefit the teachers and students. I wish that this book must be there in the libraries of all the extension departments. The design of the manual with beautiful pictures makes its reading interesting.

As there will be always a scope for improvement and this manual is no exception to this. For instance, the module on reliability and validity of the instruments need more elaboration. The editors may do well by referring two books published by Sage Publications (i) The survey kit: Volumes 1–10 (2nd edition), Edited by Arlene Fink (2003) and (ii) Research methodology –A step by step guide for beginners by Ranjit Kumar (2012) in their next edition.

I congratulate all the authors for their useful contributions to this manual and especially Dr P Sethuraman Sivakumar who contributed significantly to the different modules in this manual. I hope the extension professionals will derive the benefit of this manual, which is available online in electronic form for free download.

**Dr SVN Rao**



*Dr S V N Rao retired as Professor and Head, Department of Veterinary and Animal Husbandry Extension Education, Rajiv Gandhi Institute of Veterinary Education and Research, Puducherry ([svnrao1953@gmail.com](mailto:svnrao1953@gmail.com))*

**AESA Secretariat: Centre for Research on Innovation and Science Policy (CRISP),  
Road No 10, Banjara Hills, Hyderabad 500034, India  
[www.aesa-gfras.net](http://www.aesa-gfras.net)      Email: [aesanetwork@gmail.com](mailto:aesanetwork@gmail.com)**