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MY MEETING NOTES

National Training on
'Advanced Social Science Research Approaches'
28 Nov-27 Dec 2023,
Under NAHEP-CAAST, KAU at IRRI, SARC,
Varanasi, India.

In this meeting note, Sanila, Namita, and Swathy share their reflections on their participation in the National Training on Advanced Social Science Research Approaches at the IRRI South Asia Regional Centre, India.

CONTEXT

The National Agricultural Higher Education Project - Centre of Advanced Agricultural Science and Technology (NAHEP-CAAST) offers national-level one-month training programs for student capacity development. Under this initiative, six students—four from the Department of Agricultural Extension and two from the Department of Agricultural Economics at the College of Agriculture, Vellanikkara, Kerala Agricultural University—participated in training on 'Advanced Social Science Research Approaches' at the International Rice Research Institute-South Asia Regional Centre (IRRI-SARC), Varanasi, from 28 November to 27 December 2023. This program aimed to equip participants with advanced methodologies and tools in social science research, blending theoretical sessions, practical exposure, and field visits.

TRAINING HIGHLIGHTS

Qualitative Research Methods

The training provided a comprehensive overview of qualitative research methodologies, including sampling techniques, mixed-method paradigms, and the photovoice technique. Participants received hands-on training in NVivo software for qualitative data analysis and explored the Analytical Hierarchy Process (AHP) for structured decision-making.

Led by Dr. Deep Banerjee, participants gained insights into photovoice analysis, a participatory visual research method, and its applications in exploring food environments to generate impactful academic and practical insights. The session on Thomas L. Saaty's AHP covered theoretical foundations, practical applications, and advancements like AI integration, equipping us with tools to address complex research challenges. The process can be implemented using R software or a dedicated software package developed by NAARM, Hyderabad.

Data Collection, Analysis, and Citation Tools

Dr. Prabhakaran T.R.'s sessions on Kobo Toolbox introduced the platform's capabilities in data collection and survey design. Practical exercises covered advanced functionalities like skip logic, validation protocols, multimedia integration, form sharing, and data export to Excel. These hands-on activities and assignments equipped us to effectively use Kobo Toolbox in academic and field-based research.

Further, hands-on sessions in NVivo, R Studio, and Stata enhanced our analytical capabilities. Under the guidance of Dr. Afrin Zainab Bi, we explored advanced data visualization techniques in R Studio, qualitative data handling in NVivo, and complex statistical analyses in Stata.

The Zotero session, conducted by Dr. Swatantra Kumar Dubey, provided practical skills in citation management and research organization. Participants learned to install Zotero, use its browser connector, save online references, and manually add citations. The session also covered generating formatted bibliographies in Microsoft Word and customizing citation styles, streamlining research workflows and enhancing productivity.

Monitoring and Evaluation of Projects

Mr. Sachin Sharma facilitated sessions on Monitoring and Evaluation (M&E) of projects, emphasizing systematic assessment frameworks to measure project progress and impact. Concepts like the problem tree, impact pathway, Theory of Change, and logical frameworks were explored through participatory exercises. Tools like SMART indicators, the PESTL (Political, Environmental, Social, Technological, and Legal) framework, and evaluation criteria (e.g., relevance and sustainability) provided valuable insights into designing robust evaluation methodologies for academic and field applications.

Economic Impact Analysis and Livelihood Vulnerability

Dr. Ankita Paul's session on Economic Impact Analysis (EIA) delved into methodologies for assessing environmental repercussions of developmental projects. Key topics included screening, scoping, baseline data collection, impact prediction, mitigation measures, and monitoring frameworks. Participants also explored advanced techniques like life cycle analysis, fuzzy arithmetic, and cost-benefit analysis.

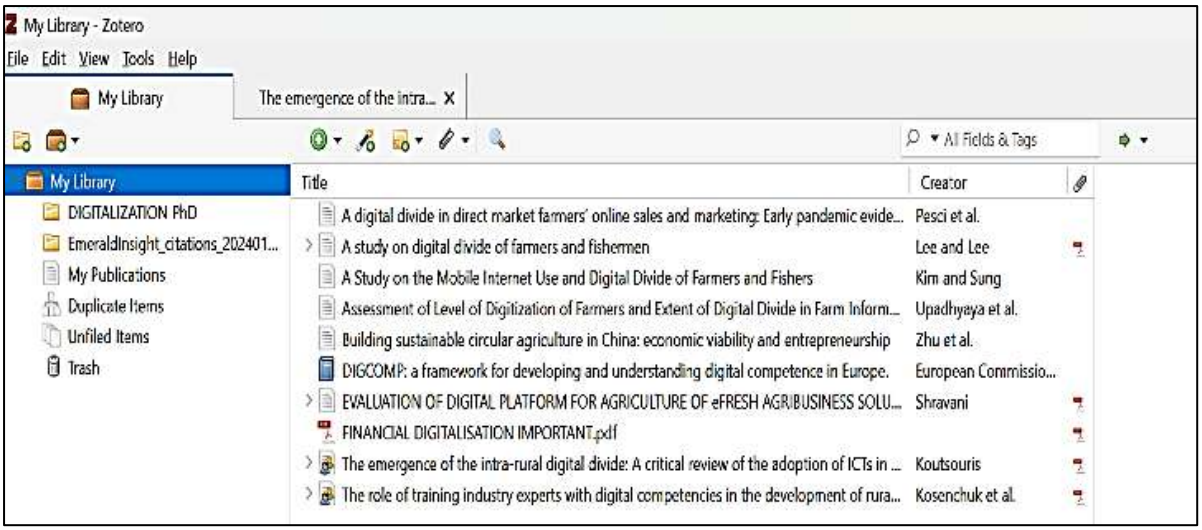
The session also addressed livelihood vulnerability, focusing on risk quantification techniques and the development of Livelihood Vulnerability Indices (LVI) using multifaceted approaches. This multidimensional perspective underscored the relevance of EIA in balancing development with environmental stewardship.

Artificial Intelligence and Machine Learning

Dr. Afrin Zainab Bi's session on Artificial Intelligence (AI) and Machine Learning (ML) examined their transformative impact across industries, particularly in agriculture. Topics included AI's evolution from symbolic logic to advanced deep learning, quantum computing, and edge computing. The session highlighted ML's potential in diagnostics, personalized treatments, and recommendation systems. This foundational knowledge encouraged interdisciplinary thinking and innovative applications in research.

Exposure Visits

The training program included insightful tours of IRRI's advanced facilities, such as the GIS and Remote Sensing Lab for precision agriculture, the Centre of Excellence in Rice Value Addition (CERVA), and the speed breeding facility for accelerated variety development. A photovoice session and campus tour further enriched our understanding of IRRI's innovative research infrastructure.



OUR IMPRESSIONS

The training was a transformative learning experience, blending academic insights with practical applications. Key takeaways included proficiency in software such as R, Stata, NVivo, Kobo Toolbox, and Zotero for statistical analysis, data management, citation, and qualitative research. Participants gained knowledge of methodologies like AHP, MCDM, and EIA, along with the applications of AI and ML in agriculture and interdisciplinary research. The program also strengthened collaborative research skills through team activities, interactive sessions, group assignments, and problem-solving exercises. However, there is scope for improvement, particularly in providing a more detailed and structured schedule to enhance clarity and ensure a smooth progression. Aligning all sessions strictly with the core theme would help maintain focus and relevance. Additionally, essential research topics should be allocated more time for in-depth explanation rather than being rushed due to time constraints. Overall, the program was informative and interactive, significantly enhancing participants' knowledge and research skills. It was a valuable experience that will undoubtedly contribute to future academic and research endeavours.

ACKNOWLEDGEMENTS

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