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Engagement and innovation in community science

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Abstract

Community science plays a major role in conducting and implementing scientific research and innovations at the grass root level. There are two key aspects involved in community science engagement and innovation that enable the creation of new solutions to the problems. Several institutes such as MANAGE, NAARM, NIRD&PR, EEI, NIN, ICMR, and ministries helped the community through different programs. As per the IV Dean's Committee, the degree program has been changed, and new courses and awareness campaigns were introduced at the village level. Innovations are implemented at the institute level for the sake of students. Community science projects can not only gather valuable data but also foster a sense of shared ownership and excitement within the community.

Keywords: Engagement, Innovation, Community Science, MANAGE, NAARM, NIRD&PR, EEI, NIN and ICMR

Introduction

Community science is an approach that involves community members in conducting and using scientific research and technological innovation to advance their priorities and benefit from the knowledge and advancements of the science field. Engagement and Innovation are two key aspects of community science that enable communities to collaborate, co-create, and solve problems that matter to them.

Stakeholder's engagement

Stakeholders in community science are groups or individuals who have an interest or influence in the research process and outcomes. It includes community members, and institutions such as local, national, and international governments. Stakeholder engagement is the process of involving stakeholders in community science in a meaningful and respectful way. Stakeholder engagement can have various benefits such as

- Enhancing the relevance, quality, and impact of the research.
- Building trust, cooperation, and social capital among stakeholders.
- Empowering communities to address their own needs and challenges.
- Promoting ethical and participatory practices.
- Fostering innovation and learning among stakeholders.

There are many institutes that collaborate with community science, which is an approach that involves community members in conducting and using scientific research and technological innovation to advance their own priorities and benefit from the knowledge and advancements in science fields. Some examples of such institutes are:

1. **National Institute of Agricultural Extension Management (MANAGE):** The National Institute of Agricultural Extension Management was established in 1987, as the National Centre for Management of Agricultural Extension at Hyderabad, under the Ministry of Agriculture & Farmers Welfare, Government of India. The main aim of this institute is to transform the existing setup through professional guidance through diverse agriculture, awareness campaigns, facilitating the acquisition of managerial and technical skills by extension officers, Managers, Scientists, and administrators in all sectors to farmers and fishermen for practicing sustainable agriculture (Manage.gov.in). This institute provides internships, conferences, seminars, and scholarships based on the merits that they achieved.
2. **National Academy of Agricultural Research Management (NAARM):** This was established by the Indian Council of Agricultural Research (ICAR) at Hyderabad in 1976. The main aim is to address issues related to agricultural research and education

management later its role expanded to include capacity building of senior professionals of both national and international NARS in agricultural research and education management. In light of the growing demand on a national and international level to combine agribusiness and agriculture in order to enhance rural incomes, as well as the growing emphasis on the production, sharing, use, and interchange of knowledge in this crucial field(naarm.org.in). They collaborate in conducting awareness campaigns, training, etc.

3. **National institute of rural development & panchayat raj (NIRD & PR):** It is an autonomous organization under the Union Ministry of Rural Development and was established in 2008. NIRD & PR helps to build the capacities of rural development functionaries, NGOs, and other stakeholders through inter-related activities of training, research, and consultancy. They provide internships to UG students who are eligible for their research purpose (nirdpr.org.in).
4. **Ministry of women and child development:** The Indian government's Department of Women and Child Development was formerly a department within the Ministry of Human Resources Development, but it became an independent ministry on January 30, 2006. This ministry's goal is to enable women to live honorably and participate equally in development in a setting free from prejudice and abuse. In this case, it's about advancing women's social and economic empowerment by intersecting policies and initiatives, mainstreaming gender issues, raising knowledge of their rights, and assisting institutions so they can fulfill their human rights and reach their full potential (Wcd.nic.in).
5. **National institute of nutrition (NIN):** NIN was founded by Sir Robert McCarrison in the year 1918. To develop human resources, capacity building, and training in nutrition and disseminating evidence-based nutrition knowledge to the community among the population groups at different levels in the country (nin.res.in).
6. **Extension Education Institute (EEI):** EEI is a regional training institute financed by the Directorate of Extension, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India under the

Administrative control of Professor Jayashankar Telangana State Agricultural University (PJTSAU). This institute provides need-based training programs for the clientele with a well-equipped environment. They find ways to address the new issues facing the agricultural and allied sectors that are effective, dependable, and affordable (eeihyd.org).

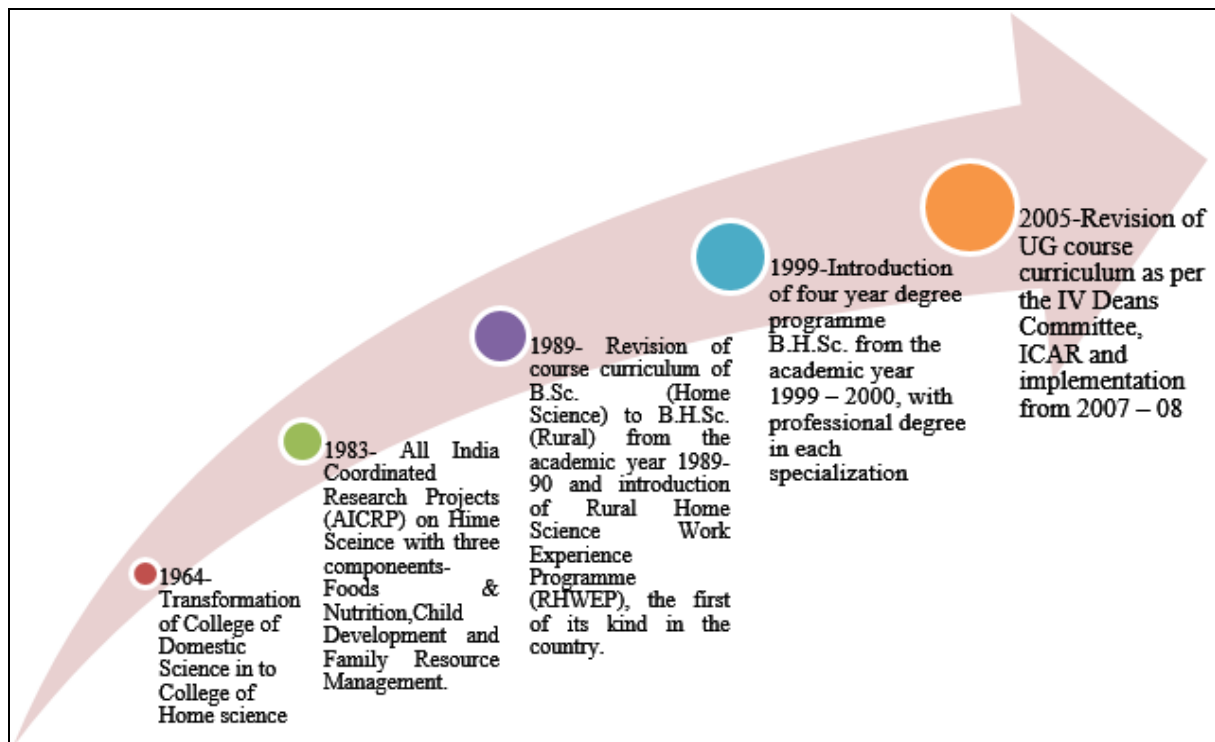
7. **Indian council of medical research (ICMR):** ICMR is the apex body in India for the formulation, coordination, and promotion of biomedical research. Nutrition is one of the trust areas that deal with low birth weight, nutrition, infection, reproductive health, fetal Antecedents of Adults Disease, micronutrients, malnutrition, food safety, environment and nutrition, food analysis, nutrition, and non-communicable diseases, nutrition problems of aging and genetically modified foods these were helpful to bring the awareness among the people those who are living in rural and urban areas.

Innovations in community science

Community science (previously well known as Home Science) discipline is an education built with scientific understanding of community concerns, humanistic & social values, technology, and skill base to improve the quality of life of people at large and vulnerable groups in particular.

The initial framework and design of Community science education was centred on urban homemakers, their families, and their communities. Community science was refocused on the rural family with a concentration on interfamily resources with the introduction of Agricultural Universities. This was because rural families are integrated, composite units that serve as both production and consumption units. As a result, the curriculum were developed and implemented in this dimension.

The 1990s and 2000s saw the rise of application-oriented education, which changed students' roles from those of job seekers to those of job suppliers in response to the community's rapidly shifting needs. This decade established the groundwork for numerous educational reforms, including as the Rural Home Science Work Experience Programme (RHWEPE) in rural areas, skill- and entrepreneurial-oriented instruction, and four-year UG programmes.



In 2007 first batch of students was admitted to receive the IV Dean's Committee-recommended UG syllabus.

2010- Initiation of Experiential Learning Programme (ELP). As per the IV Dean's Committee Combination of degree programs was changed, Diploma Courses are also introduced. Subsequently RAWE, Internships, and ELP were introduced into UG Programme.

Rural area work experience programme (RAWEP)

In India, the Randhawa Committee (1992) recommended the Rural Area Work Experience Programme (RAWEP) for imparting quality, practical and productive-oriented education for the Community Science Degree Programme. Based on these recommendations RAWEP programs were included in the curricula of the graduate Degree program.

The Whole RAWE program was carried out under the supervision of some teachers from the Department of Community Science, who stayed continuously with the students during the activities related to RAWEP to supervise and monitor the work. The activities done during the semester of RAWEP are as follows:

- Method Demonstrations
- Village surveys
- Farm visits
- Rallies
- Selection of Host Families
- Creating awareness of Acts, Policies and Programmes related to child, women, Food adulteration, Consumer Protection etc.
- Stain removal techniques

Internships

An internship is a period of work experience offered by an organization for a limited period of time. It consists of an exchange of services for experience between the intern and the organization. They are typically undertaken by students and graduates looking to gain relevant skills and experience

in a particular field. Employers benefit from these placements because they often recruit employees from their best interns, who have known capabilities, thus saving time and money in the long run. Interns may be high school students, college and university students, or postgraduate adults.

Internships are used to determine if the interns still have an interest in that field after the real-life experience. In addition, an internship can be used to create a professional network that can assist with letters of recommendation and or lead to future employment opportunities. The benefits of bringing an intern into full-time employment is that they are already familiar with the company, and their position, and they typically need little to no training. Internships provide current college students the ability to participate in a field of choice to receive hands-on learning about a particular time work following graduation.

Objectives

- To experience an environment that stimulates and enhances effective learning and communication skills.
- To induct hands-on experience for students in professional fields through their experiences by developing their knowledge and skills.
- To cultivate capabilities, appropriate to the job scenario.
- To develop the attitudes, values, and critical thinking skills that the students need in order to take critical action in appropriate situations, including beyond the classroom environment, when necessary.
- To expose the students to professional role mode that will provide the students with support in the early stages of the internship.
- To assist the student's development of values skills such as teamwork, communication, and attention in detail.

Experiential learning programme (ELP)

ELP is for building skills in project development and execution, decision-making, individual and team coordination, approach to problem-solving, accounting, quality control, marketing and resolving conflicts, etc. The program has an end-to-end approach. Carefully calibrated activities move participants to explore and discover their own potential and, in the process, provide analytical skills and business acumen. Both activities and facilitation play a critical role in enhancing team performance.

ELP thus provides the students an excellent opportunity to develop analytical and entrepreneurial skills, and knowledge through meaningful hands-on experience, and confidence in their ability to design and execute project work.

ELP is one of the components under the Student READY Programme that will be undertaken during the VII/ VIII semester. Experiential Learning is an opportunity for students to develop high-quality professional competence, skill development, and confidence to start their enterprise. This is a step towards “Earn while Learn”. Experiential Learning aims towards practical work experience in real-life situations among undergraduate students and therefore it helps students become “Job providers rather than job seekers”.

All India Coordinated Research Project (AICRP)

Promoting community science is greatly aided by the All India Coordinated Research Projects (AICRP), particularly when it comes to agriculture and related fields. To perform scientific studies, scientists and researchers collaborate with members of the public or the community in what is known as community science. The following are some ways that AICRP advances community science:

1. Engagement with farmers and communities
2. Participatory approach
3. Technology transfer to communities
4. Capacity building
5. Community-based monitoring and evaluation
6. Enhancing sustainable practices
7. Knowledge sharing and communication through various channels to target audience.

Krishi Vigyan Kendra (farm science center)

In Krishi Vigyan Kendra (KVK), a community science scientist is essential to bridging the knowledge gap between the farming community and scientific research. KVKs are agricultural extension centers with the mission of educating farmers about new and innovative agricultural technologies. The Community Science Scientist, sometimes referred to as the Subject Matter Specialist (SMS) in specific situations, carries out several tasks to guarantee that scientific knowledge is effectively communicated and applied at the local level.

Key roles played by KVK

- Conduct on-farm trials and demonstrations to showcase the benefits of adopting specific technologies.
- Conduct farm visits to assess problems, diagnose issues, and offer solutions based on scientific principles.
- Organize training programs, workshops, and field days for farmers to enhance their knowledge and skills.

- Identify and promote innovative and sustainable agricultural technologies that can benefit the community.

Community science scientists play a vital role in enhancing farmers' lives, advancing sustainable agriculture, and guaranteeing the effective use of scientific information at the local level.

Research associates (RA)

To assist the center's research and extension efforts, a Research Associate (RA) at a Krishi Vigyan Kendra (KVK) is essential. The Indian Council of Agricultural Research (ICAR) developed KVKs as agricultural extension units to provide support for the implementation of agricultural research at the community level.

Roles and responsibilities of RA

- Research planning and execution
- Technology assessment
- Conducting trainings and demonstrations
- Capacity building programs
- Community engagement
- Documentation and reporting

At KVKs, research associates are crucial in renovating scientific understanding into useful solutions for farmers. Their efforts help to advance effective and sustainable farming methods, which eventually improve farmers' livelihoods and advance rural development.

Conclusion

Community science plays a crucial role in bringing scientific research and innovations at the grass root level. By combining effective community engagement strategies with innovative technologies and educational initiatives, community science projects can not only gather valuable data but also foster a sense of shared ownership and excitement within the community.

References

1. About the Ministry | Ministry of Women & Child Development | IN | ronvb (wcd.nic.in)
2. Extension Education Institute, Hyderabad – Professor Jayashankar Telangana State Agricultural University (eeihyd.org)
3. <https://chshyd.in/colhistory.html>
4. <https://www.manage.gov.in/>
5. ICAR-National Academy of Agricultural Research Management | NAARM, Hyderabad, Capacity building, Agribusiness, Agriculture, Management
6. National Institute of Nutrition, India (nin.res.in)
7. Thrust Areas of Research | Indian Council of Medical Research | Government of India (icmr.nic.in).