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Understanding Agricultural Anthropology

[1]Lakshmi Muralikrishna, [2]Guntukogula Pattabhi Sandeep and [3]Deinichwa Dkhar

[1,2&3]Research Scholars, Department of Agricultural Extension, University of Agricultural Sciences, GKVK, Bengaluru, Karnataka, India

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Abstract

Agricultural anthropology, a discipline is the intersection of anthropology and agricultural sciences, that delves into the multifaceted relationship between human societies and agricultural practices. It systematically examines the impact of cultural, social, and environmental factors on farming communities globally. Anthropologists categorize farmers into distinct groups based on their modes of subsistence, classifying them as foragers, horticulturists, pastoralists, or intensive agriculturists and it reflects a specific approach to securing sustenance, shedding light on historical and cultural diversity in agricultural practices. Through comprehensive studies, agricultural anthropology not only classifies farmers but also investigates the evolution of farming systems over time. It examines the adaptive strategies and how communities have historically navigated changes in agronomic and animal husbandry practices, offering valuable insights for addressing contemporary challenges in agriculture, understanding of sustainable practices and the preservation of agricultural heritage. To realize its full potential, the integration of agricultural anthropology into mainstream agricultural sciences requires support from governmental and educational institutions.

Introduction

The term "agricultural anthropology" was coined by Robert Rhoades (1942-2010) during his time as a Rockefeller Postdoctoral Fellow at the International Potato Center in Lima, Peru, in the late 1970s and early 1980s. This concept challenged the existing top-down approaches in the Consultative Group on International Agricultural Research (CGIAR) system, which were predominantly shaped by agronomists and biologists. Rhoades, along with biologist Robert Booth, introduced the 'farmer back to farmer' model in 1982, emphasizing a participatory approach that placed farmers at the center of research. This method spread across the CGIAR system, thus facilitating the diffusion of appropriate technologies to farmers worldwide (Sarker, 2017).

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Agricultural anthropology, as defined by Rhoades and Booth in 1984, is the comprehensive study of the human element in agricultural activities. It goes beyond technical aspects, considering the interactions of environment, technology, and culture in local and global food systems. Unlike narrower agricultural disciplines, it recognizes agriculture as a multifaceted human creation, encompassing socio-cultural and ideological components within the natural environment. This historical exploration aims to shed light on the roots and evolution.

Farmer Classifications in Anthropological Studies

Anthropologists have undertaken the intricate task of categorizing farmers into distinct groups based on their modes of subsistence. This classification reflects the diverse ways in which human societies have historically engaged with their environments to secure sustenance. The first category, foragers, encompasses hunter-gatherer societies characterized by a reliance on hunting, fishing, and gathering wild plants for their livelihood. Horticulturists, the second category, represent primitive agriculturists who engage in simple, non-mechanized cultivation practices to grow crops. The third group, pastoralists, revolves around livestock rearing and herding as a primary means of subsistence. Lastly, intensive agriculturists constitute the fourth category, involving sophisticated and resource-intensive farming methods.

The classification of farmers into these four categories not only sheds light on the historical and cultural diversity of subsistence practices but also underscores the intricate dynamics between humans and their environments. Foragers exemplify a harmonious coexistence with nature, relying on its bounty in a sustainable manner. Horticulturists embody a transitional stage, engaging in rudimentary agricultural practices to meet their needs. Pastoralists showcase a symbiotic relationship with livestock, emphasizing mobility and adaptation to diverse landscapes. In contrast, intensive agriculturists demonstrate a departure from traditional methods, employing advanced techniques and technology to maximize agricultural output.

Fieldwork Methods in Agricultural Anthropology

In anthropology, various fieldwork methods are employed during research, facilitating the collection of valuable data. Here is a condensed exploration of key methods:

1. **Observational Methods:** This non-invasive method involves minimal integration into the studied society. Anthropologists gather data through open-ended interviews, fostering a

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dialectic for information exchange. Objectivity may be sacrificed for community-based activism and social change.

- **Participant Observation:** Anthropologists establish an intimate relationship with the culture by actively participating in social events, taking notes, partaking in rituals, and more. This immersive method aims to foster a profound understanding through firsthand experience.
- **Non-Participant Observation:** In contrast, this method involves entering a community with limited interaction, akin to being a 'fly on the wall.' Researchers observe subjects' interactions and behaviors, collecting detailed data such as body language and speech styles. Combining both participant and non-participant methods offers a more comprehensive and unbiased perspective.

2. **Ethnographic Method:** Cultural data is treated as directly observable material, including behaviors, performances, and ideas. Researchers employ participant observation and key informant interviewing to understand symbols within a coherent system, paying attention to cultural context and meanings assigned by practitioners.
3. **Comparative Method:** This method allows systematic comparison of information from multiple sources, testing hypotheses on cultural practices, co-evolution, and kinship terms. Cultures are studied in relation to one another to explore cross-cultural trends. Despite its historical use, the comparative method remains a primary research approach for anthropologists globally.
4. **Reflexivity:** Reflexivity is the researcher's awareness of their impact on research, rooted in the "Thomas Theorem." Cultural anthropologists, engaged in reflexive fieldwork, must constantly acknowledge their influence, considering ethical and political contexts.
5. **Intersubjectivity:** It emphasizes knowledge emerging from people's relationships and perceptions. Five key principles define it, including shared worldviews and the synthesis of perspectives through empathy. Anthropologists must view their work through the lens of intersubjectivity, building relationships and understanding perceptions through experience.
6. **Participatory Action Research:** This method hinges on community commitment to change and unfolds in five steps: education, collective investigation, interpretation, action, and transformation. Conducted ideally by community members, this research allows for a deeper understanding of issues and fosters self-determination and empowerment. Its

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dynamic nature facilitates constant reevaluation and adaptation, promoting healthy community development without external contributions.

Present focus of Agricultural Anthropology

In the field of agricultural anthropology, current emphasis is placed on several key areas, including agrobiodiversity conservation, sustainable agricultural practices, and the study of farmers' technology adoption behavior. One significant aspect of this focus is agrobiodiversity conservation, representing a longstanding and ongoing research interest within the field. Anthropologists delve into understanding the intricate dynamics of preserving agrobiodiversity, recognizing its critical role in sustainable agriculture and its broader impact on ecosystems.

Within the domain of sustainable agriculture in anthropology, attention is directed toward three principal areas: conservation agriculture, cultural memory banking, and homestead gardening. Conservation agriculture involves methods that ensure the preservation of both the environment and traditional farming practices. Cultural memory banking centers on preserving the agricultural heritage of communities, while homestead gardening addresses sustainable cultivation practices at the household level.

Conservation agriculture, as stated by the Food and Agriculture Organization of the United Nations, aims to achieve profitable and sustainable crop production while preserving the environment. Often referred to as "agricultural environmental management," conservation agriculture is supported by programs like the U.S. Farm Bill.

Cultural memory banking, a concept coined by anthropologist Virginia Nazarea, involves integrating cultural information related to seeds stored in seed banks, going beyond merely conserving genetic material. Seed banks traditionally focused on preserving genetic diversity but often overlooked the traditional knowledge tied to crop usage within communities. Cultural memory banking expands the scope to encompass agricultural practices, stories, songs, recipes, and other cultural aspects linked to specific crop varieties.

Globally Important Agricultural Heritage Systems (GIAHS) represent landscapes combining agricultural biodiversity, resilient ecosystems, and valuable cultural heritage. These systems, found in specific locations worldwide, sustainably provide essential goods and services, ensuring food and livelihood security for millions of small-scale farmers. Examples like the rice-fish culture in Zhejiang Province, China, showcase the enduring cultural,

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ecological, and agricultural diversity upheld by these unique agricultural systems (Nazarea, 2006).

For instance, the Gumla tribe in Jharkhand predominantly relies on rice and leafy vegetables, though the extreme (90%) prevalence of anemia and low body-mass index remains a concern. To address this, initiatives like Poshan Vari by PRADAN aim to revive traditional kitchen gardens in available spaces near houses or through mutual consent for homestead lands. Covering over 600 households in 47 villages, this initiative, started in 2016, seeks to enhance the diet and nutritional status of residents, especially those without homestead lands. This approach underscores the significance of homestead farming in improving dietary diversity and nutritional outcomes in communities (Chatterjee *et. al.*, 2016).

Conclusion

In conclusion, agricultural anthropology stands as a compelling example where human evolution wield substantial influence, shaping agronomic and animal husbandry practices globally. The dynamic nature of these practices, driven by evolutionary and migratory factors, has far-reaching effects on the balance and character of farming communities. Agricultural anthropology serves as a lens to understand how farmers worldwide navigate and adapt to these changes, deriving valuable knowledge and solutions for contemporary challenges. Moreover, it plays a crucial role in preserving the rich agricultural heritage and fundamental beliefs of farming communities.

In the future of agriculture, integrating agricultural anthropology as a significant sub-discipline emerges as a key imperative and promises enhanced knowledge dissemination and application at the grassroots level, fostering a meaningful connection between agricultural research with societal and environmental contexts. The overarching goal is to pave way for sustainable agriculture, aligning human activities with ecological balance. The synergy between agricultural anthropology and conventional agricultural sciences holds the potential to usher in a more holistic, adaptive, and sustainable approach to farming practices worldwide.

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