Original Article

Agricultural Communication In Scheduled Areas: A Study On Coffee Cultivation In The Araku Valley, Andhra Pradesh, India

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Abstract

Agricultural communication aims to influence farming and farmers significantly. The most basic definition of communication is the transfer of information from the farmers to the tribal people. By doing that, communication only informs the tribal people of the inclusion of new technology, actual change cannot occur only if the tribal people also obtain the technology and the training necessary to employ it. Schedule areas agriculture is very different from plough farming elsewhere. Generally, tribal communities have low population density, undulating topography, thickly wooded areas, and transportation problems. Most of the hill tribes use shifting farming, in their cultivation. The majority of the hill tribes use shiftfog farming and sometimes prefer alternative cultivation. Tribal people still engage in shifting agriculture due to the physical characteristics of the hills, and unless forced otherwise by physical or economic considerations, they prefer this technique to permanent agriculture. The importance of agriculture communication in schedule areas and coffee cultivation in Araku Valley Andhra Pradesh are covered in the present study.

Keywords: Agricultural communications, shift cultivation, coffee cultivation, araku valley, organic forming.

Introduction

Agricultural communication is an emerging field in journalism which includes agriculture as one part and communications in another part. Agricultural communication aims to disseminate the new trends in agriculture to the farmers. Agricultural communications, as considered here, encompasses all kinds of human communication about agriculture, food, natural resources and scheduled area's interests. Agricultural communications have evolved from a public service to a cutthroat sector where expertise in business, media, and farming is essential (Burnett & Tucker,

2001). The study authors provide a more accurate and illuminating account of agricultural communications with regards to time zones and other traditionally used means of contact. Shift cultivation, a time-honored but antiquated practise, predominates in scheduled areas. Most of the steep down side of the region's population practises shifting cultivation, an ancient kind of farming unique to the region's indigenous peoples. This kind of farming is known as "Slash and burn," after the practise of clearing forest land by cutting down trees and setting them on fire, or "Shifting cultivation," after the practise of moving from one plot to another. This kind of farming is also called as "Rotational bush fallow agriculture" because of the cyclical nature of its operation. Selecting and removing trees by slash-and-burn methods, then planting, harvesting, and fallowing a variety of crops before leaving the land fallow for a while is the primary method of shifting agriculture (N.V. Kumari,2017).

Some kind of shifting agriculture is carried out in all of the world's tropical and subtropical zones, however the methods used vary. Ten percent of the world's population relies on slash-and-burn agriculture, which is practised on an estimated 36 million square kilometres of land (Hauck, 1973). The Amazon basin, southwestern China, Africa, Korea, Vietnam, and other regions all practise some kind of shifting agriculture, which goes by a number of different names. According to available data, the most extensive use of nomadic farming is seen in Africa, followed by Latin America (Conklin, 1957).

Only in India, namely in the hilly regions of the Northeast, Southern Orissa, and the tribal belts of Andhra Pradesh, where it goes by its indigenous vernacular names, does the practise of shifting agriculture persist. Andhra Pradesh, Orissa, and the other northeastern states have a severe issue with shifting agriculture, whereas Madhya Pradesh and Bihar only have a minor one. Nearly 9.95 million hectares of land in India are used for shifting agriculture, according to a task group established by the Ministry of Agriculture. However, because of its ephemeral nature, regular monitoring is required to determine the precise overall area. One-twelfth of the tribal population engages in jhum, as reported by the Nitiaayog Commission (2001), in 233 blocks across 62 districts in 16 states. Srikakulam, Vizianagaram, Visakhapatnam, Khammam, East Godavari, and West Godavari are only few of the areas in Andhra Pradesh where shifting agriculture is widely used. In Srikakulam district and the coastal districts of Andhra Pradesh, the practise of shifting cultivation is known as Podu in the local vernacular. Remote sensing methods are being used in podu farming, a kind of shifting cultivation used along the coast of Andhra

Pradesh. Most of the coastline area's steep terrain is farmed using the Podu method. Roy (1990) explains that shifting agriculture is more common in hilly areas because to the favourable conditions there for rapid plant development (a mild slope of the ground, abundant rainfall, moderate temperature, and rich soil). Deforestation and other environmental harms are inevitable results of podu agriculture. For mapping and keeping tabs on regions with nomadic farming, the IRS data may be put to good use by the indigenous people who use it. In order to improve the economic and social situations of tribal people and to ensure their survival into the future, remote sensing is an invaluable instrument for keeping tabs on natural resources and associated environmental challenges. B.K.Roy,1970 in his article explains the types of cultivations in tribal areas they are shifting cultivation, horticulture, Taungiya, and Terrace cultivation etc, also explains land uses the pattern of different cultivations like shifting cultivation, terrace cultivation and permanent cultivation crop pattern and holding sizes are studied (K.Umadevi etc,2003) explains regarding the production and marketing problems faced by the growers in the agency areas and also getting a low price to their produce, lack of domestic market in the local environment and exploited by the traders to a large extent. (Suresh Reddy, 2018) observed the tribal socio-economic conditions of tribal farmers in the scheduled areas of M.P and also tries to understand the process of changes occurring in the socio-economic life of tribal households in MP regions. An essay (David Hogg ed, 2013) describes how village development committees, agro-forestry, and LEISA agronomic methods may all work together to mobilise a community. The goal of this first aid is to help this tribal agricultural group get their artisanal farming off the ground. Access to inexpensive energy and financing for this cultural shift, which we call the "Araku Way," are just a few examples of the many ways in which we're helping people all across the world. The tribal people of the Araku Valley in Andhra Pradesh, India, have benefited greatly from the work of non-governmental organisations (NGOs) in improving their economic and social situations.

The objective of the study

To find out the shifting cultivation in scheduled areas

To find out the coffee cultivation in araku valley

To find out the importance of Agricultural Communications in schedule areas

Methodology

This research relies heavily on numerical methods. Only secondary information was used for the research. Secondary data comes from both published and unpublished sources. The following are the primary data sources. One, research on the progress of indigenous communities that has been made public. Numerous state and federal government studies, as well as planning commission papers and periodicals, on tribal welfare may be found in various places.

Discussion & Analysis

Legend has it that a shepherd called Kaldi in Caffa, Ethiopia, saw his hyperactive sheep after feeding on some red berries, and there's where coffee first got its start, far before 1,000 A.D. It was under the Ottoman Empire (around 1453 A.D.) when coffee was first brought to Turkey and the first coffeehouses were established. Mysore in Karnataka is where a Sufi Saint called Baba Budan smuggled coffee into India from Mecca. Drinking coffee is a delight. It's one-of-a-kind due to its delicious flavour, pleasant scent, and revitalising qualities. The hilly regions of the southern Indian states produce the vast majority of the country's coffee. Some claim that Indian coffee is the world's best since it is shade-grown rather than sun-grown. 70% of India's coffee comes from the state of Karnataka, 20% comes from the state of Kerala, and 7% comes from the state of Tamil Nadu. to the east, where more regions have been established in Andhra Pradesh and Orissa, creating the country's traditional coffee producing zone. It wasn't until 1898 that a British government officer named N.S. Brodie brought coffee to these highland regions. Andhra Pradesh's forest service took over former British coffee estates after independence (APFD). The Girijan Co-operative Corporation (GCC) was founded in 1956 by the state government to provide Adivasis with employment opportunities. They hoped that getting them involved in coffee farming would divert them from the harmful jhum growing. In 1975, control of the plantations was transferred to the Andhra Pradesh State Forest Development Corp. (APFDC), which, together with the GCC and the Indian Coffee Board, made an effort to increase production. Demonstration plots were established, and people were given free coffee and silver oak seedlings (silver oak is useful as both a shade tree and a cash crop). The Araku valley hills of the Visakhapatnam district provide optimal climatic conditions for coffee farming, and the region's 91% tribal population takes great pleasure in this fact (Surendra,2019). Pepper, jackfruits, mangoes, and vegetables are intercropped with full shade-grown coffee in the araku valley's unique production technique (Karki SK etc,2019). , and a third area made up of the

Northeastern states of Assam, Manipur, Meghalaya, Mizoram, Tripura, Nagaland, and Arunachal Pradesh, sometimes known as the "Seven Sister States of India" (Sasubilli Paradesi Naidu, 2018). Smallholder farmers in India account for almost 98% of coffee land and 70% of coffee output. Most farms are considered to be tiny, with an area of less than 2 ha (77%). (Upendranadh, 2010). As a result, it provides a significant income for many plantation workers and small and marginal planters. Growing coffee in India is significant not only because it can be exported for money, but also because it supports so many people in rural areas and on plantations (Deepika and Jyotishi, 2013).

Cultivation Process Of Coffee

Cultivation of Coffee: Essential growth conditions required for the cultivation of coffee are as follows: 1. Climate 2. Shade 3. Topography 4. Soils 5. Economic Conditions.

Climate: Coffee is a plant that is native to the tropics, but may also be cultivated in semi-tropical regions. The coffee plant can only thrive in very specific climate conditions. The following range of temperatures and amounts of rain are optimal for growing coffee.

(a) Temperature: The ideal temperature range for brewing coffee is between 20 and 27 degrees Celsius. Though it thrives in the Arabian Peninsula's average daytime temperatures of 32 degrees Celsius and above. The hot rainy season is optimal for growth, whereas the cold dry season is best for harvesting berries. Sunny, warm days are essential for harvesting.

(b) Rainfall: Coffee requires heavy precipitation, namely between 100 and 200 centimetres per year. The ideal places to grow coffee beans are on the slopes of hills, where the orographic rainfall is most plentiful.

2. Shade: Coffee plants can't tolerate direct sunshine, so they're often grown in the shadow of other, larger trees like banana palms. Shade-producing and nitrogen-fixing, the leguminous plants utilised in Brazil are a key component of the country's agricultural system.

3. Topography: Growing coffee requires steep slopes, often between 600 and 1,800 metres in altitude. Slopes work well for growing coffee since they are cooler and have good drainage. Therefore, steep slopes are ideal since water stagnation is very detrimental to coffee plants.

4. Soils: The soil is the first consideration while tending a coffee farm. It's best to work with a soil that drains well below ground. Soil with a high concentration of humus and other nitrogen-rich materials is preferable.

5. Economic Conditions:

(a) Labour: Because coffee must be hand-picked and no machine has yet been invented to do it, growing coffee requires a significant number of workers. In addition, plantations need constant attention throughout the year, from planting to transplanting to cultivating to trimming to weeding to, of course, harvesting.

(b) Capital: Growing coffee beans requires a significant investment. The first three to four years of operating a coffee plantation provide little income, but costs increase. Consequently, a substantial investment of cash is necessary for coffee growing.

(c) Transport: For a coffee farm to be prosperous, there must be a well-developed system of transportation both inside and outside the plantation. The distribution of coffee is accomplished by sea and air methods, with occasional use of land routes, with the assistance of internal rail and road transport.

(d) Markets: The demand for coffee spans oceans. There is a lot of rivalry in the industry right now, therefore keeping an international market is essential. Market changes have a similar effect on coffee output and prices.

Andhra Pradesh's indigenous farmers have embraced organic farming. Killo Dombu is a tribal farmer in the Anthriguda hamlet of Ananthagiri Mandal in the Visakhapatnam district, where he cultivates land via NABARD's 'Maa Thota' programme. Dumbriguda Mandal's Kilo Dombu, from the hamlet of Anthriguda, takes great pride in his accomplishments. His one acre garden almost entirely self-sustained, since almost every plant there is profitable. His unconventional approaches to farming are now widely emulated. Using bio-pesticides and organic farming techniques, he is cultivating forty different plant species. When it comes to farming, Dombu recommends diversification over specialisation. His plantations boast a wide variety of fruit trees and bushes, including 40 specimens of mango, Chiku, acid lime, red sanders, teak, bamboo, fishtail palm, jack, jamun, custard apple, guava, and Bahumia. Pumpkin, beans, bottle gourd, and ridge gourd are all examples of creeping vegetables. Plants like euphorbia, agave, and jatropha serve as a barrier around his property. Medicinal plants are

produced alongside inter-crops of vegetables including brinjal, green pepper, chilli, pepper, rajma, and cabbage. Other 'Maa Thota' farmers looked up to P. Viswanatham, head of Vikasa, a non-governmental organisation that promotes organic growing among tribal farmers. The 2018 Prix Epicures OR Paris best coffee pod prize went to a company whose Signature variation had already done well in the field of specialty coffees. In March 2009, this coffee received its first taste of global recognition at the international coffee tasting event, 'Gems of Araku', by Naandi. "For the farmers to benefit, we had to tap into the markets abroad that paid more". Adapted from the Cup of Excellence and Specialty Coffee Association of America's cupping protocols, international experts acknowledged its high quality. Since then, every year, an international jury of coffee cuppers participates in the Gems of Araku event. Eventually, we also want to tap the New York and Tokyo markets". Arabica Coffee got recognition in the Geographical Indications of Goods (Registration and Protection) Act, 1999 also.

Importance of Agricultural Communication

Agricultural production is essential to the country's economy. Despite claims that agriculture is at the top of the development agenda, investment in farming and rural areas remains low. Farming is the process of raising crops, livestock, and other goods for human use. Agriculture is a major factor in the development of settled human society. One of them consists of a remote tribal community whose residents lack formal education and are cut off from mainstream culture. They are cut off from the rest of society. ITDA provides subsidies for modern agricultural equipment, teaches about horticulture, animal husbandry, minor irrigation, sericulture, and fishing, and distributes High Yield Variety seeds to tribal communities. The media play an important role in disseminating any ITDA programmes to the public. As Majunder (1987) pointed out, the Garos (a hill tribe) are now a part of the globalised contemporary world civilization. Though they achieved enormous strides in agricultural technology from their traditional practise of shifting cultivation, this was before the advent of modernism, and despite repeated efforts by different government organisations, they still refuse to adopt more complex methods of farming. Their garments, however, are now produced in extremely sophisticated textile mills, so in other ways they are thoroughly contemporary. Iron and aluminium ware utensils made with advanced technology have mostly replaced their previously used grinding and clay containers. But paderu agencies in the Araku valley embraced contemporary agricultural

practises and began turning out harvests for sale. In the Araku Valley, for instance, good communication has made all this feasible. According to Purushothaman C, Madhava Kavaskar, Y.A. Reddy, and K. Kanagasabapathi, radio and television are the best means of disseminating scientific information to the general public. The medium of communication is especially significant in a nation like India, where the literacy rate is low. Television and radio play an important role in this context because they rapidly disseminate information about contemporary agricultural technology to farmers, both literate and uneducated, in rural and remote locations. Broadcasts aimed at educating Indian farmers on how to best put new technology to use in their fields began airing on farms and in homes in 1966. (Gupta, 1996). When it comes to the development of nations in the Third World, Wilbur Schramm was one of the pioneers who saw the potential importance of communication. He thought that the media might help people out by providing more access to knowledge and more chances to learn. The same is true for tribes, since the mainstream media will be essential in the growth of tribes in federally designated areas of responsibility. Essentially any government-run initiative aimed at improving people's access to information. The first agriculturally focused farm and home broadcasts in India aired that year, with the goal of educating farmers on how to best use new technology for their fields. Since most people in India still work in agriculture, **TV** might reach them effectively. Farmers in indigenous communities may learn about new techniques and practises by watching **TV.** As such, radios and televisions play a significant part in this setting. It's teaching farmers in remote areas when and where to plant certain crops, what kind of soil they should use, and what kinds of pesticides and fertilisers to use. The tribal formers also utilise new technologies like the internet and net-based social media for a better source of communication. The tribal community also uses new technologies like remote sensing, image processing and artificial intelligence for more production, and productivity.

Conclusion

Radio, which can readily reach a huge number of people in constrained scheduling regions without the constraint of literacy, distance, or cost, plays a vital part in agricultural communication's ability to raise farmers' understanding of new agricultural technology. Farmers, crop consultants, scientists, and other members of the agribusiness community rely heavily on the objective and fact-based reporting of agricultural journalists. Programs teaching adults to

read and write are essential if tribal farmers are to be equipped with the literacy skills necessary to access agricultural information via digital means. Due of the lag in the delivery of information, some consumers nowadays choose not to get news through traditional media such as newsletters, magazines, books, radio, and television. The sharing of information in the agricultural sector is no different. As a result, technology is now able to communicate in "real time" with other producers and shapers in a variety of locations, including neighbouring states and even nations. Modern production methods should be encouraged in coastal tribal communities by creating a technologically based agricultural information system. In order to improve the economic and social well-being of indigenous people and ensure the long-term viability of their communities, remote sensing is an invaluable tool for keeping tabs on natural resources and identifying environmental issues that may be avoided with better planning. Subdivision of Paderu Plantations in the Araku Valley produce coffee with tremendous potential in both the local and global markets. It was the coffee plantations that provided direct work and money to the indigenous people in the area via the use of labor-intensive cut out plantings. Profitable business ventures may be found in coffee farming. Given that the coffee doesn't begin producing until the fourth year, the first three years provide no income. Starting in year five, revenue increases steadily each year until year fifteen, when it begins to fall gradually owing to the plant's advanced age. The Naandi Foundation's Araku Coffee has been in the works for almost a decade, evolving from a local livelihood project to a worldwide acclaimed commodity. It's also connected to how coffee made its way to this valley. Another milestone for the company, the Signature variety won the best coffee pod prize at the 2018 Prix Epicures OR Paris, a competition for high-quality coffees from across the globe. Anthriguda villager and Dumbriguda Mandal high achiever Kilo Dombu is bursting with pride. His field allotment, on which he grows cash crops, is almost completely productive. His unconventional approaches to farming are now widely emulated. Using bio-pesticides and organic farming techniques, he is cultivating forty different plant species. Dombu and the non-governmental organisation Maa Thota, which promotes organic farming among tribal farmers, have served as role models for other farmers in the protected zone. The government should put money into tribal communities' infrastructure, as well as their means of communication, transportation, healthcare, and education.

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