

Indigenous Agricultural Practices among Mavilan Tribe in North Kerala

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ABSTRACT Mavilan, a north Kerala tribe inhabits the hilly areas of Kannur and Kasaragod districts. Traditionally, they were hunters, gatherers and shifting cultivators. They have rich knowledge in various kinds of paddy and they categorized it according to the peculiarity of seeds. The *kumeri* cultivation, crop diversity, plant protection measures, harvest and storing come under the agricultural practices of Mavilan community. In the present day, their agricultural practices have changed a lot. It is due to the regulation of forest rules, changing land use pattern and intrusion of their land by the non-tribal communities.

INTRODUCTION

The concept of indigenous knowledge has reflected in the definition of Lois Greneirs. He defined "indigenous knowledge as the unique traditional and local knowledge as existing within and development around specific conditions of women and men indigenous to a particular geographical area. Indigenous knowledge is dynamic. It is the continuous process of experimentation, innovation and adoption that enables itself to blend with science and technology as well. Indigenous knowledge plays an important role in conservation of biodiversity" (Dudhe and Shinde 2002). Indigenous knowledge refers to the traditional agriculture practices, which are carrying over from generation to generation by interaction of members of a social system.

Mavilan, a tribal community inhabit Kannur and Kasaragod districts of North Kerala. In the past, they were dependant on forest and forest produce. They had been leading a hunting, gathering and horticulture way of life until the encroachment of *Janmi* (landlord) to their habitat. According to the 2001 Census, the population of Mavilan in Kasaragod district is 25110. Out of this, 12310 are males and 12800 females. In Kannur district alone, their population is 4403, out of which 2200 are males and 2203 are females. Their major settlements are seen in Peringome, Kankole-Alapeaddappu, Alakode, Udayagiri, Sreekandapuram, Payyavoor, Eruvassery, Chengala, Puthigae, Karadukka, Kodom, Belloor, Kinnanur, Karimthalam, Badiyadukka, Balal, Kallar and Panathady panchayats.

The earlier references regarding the Mavilan are as follows, Mavilan described in Madras Census Report (1901), as small tribe shikaris (hunters) and herbalists, who follow *makkathayam* (inheritance from father to son), and speak corrupt *Tulu*. *Tulumar* (native of the *Tulu* country) and *chingattan* (lion-hearted people) were returned as sub-divisions. The name, H.A. Stuart writes, is said to be derived from Mavilan, a medicinal herb. However, the real derivation must be sought in *Tulu* or Canarese, as it seems to be a Canarese caste. These people are found only in the Chirakkal Taluk of Malabar. Their present occupation is basket making. Succession is from father to son, but among some it is also said to be in the female line (Thurston 1975). It is recorded in the Gazetteer of Malabar that the *mavilons* are divided into *Tulu mavilons* and *Eda mavilons* and sub-divided into thirty illams. They are employed as mahouts (drivers of elephants), and collect honey and other forest produce; their headmen are called *chingam* (simham, lion) and their huts *mapura* (Madhavan 1984; Singh 1993; Raju 2002)

The *Report on the socio-economic conditions of the Aboriginal Tribes of the province of Madras* gives a detailed account of the tribal people of Malabar as well as the tribal group of Madras province. Aiyappan had done his study as a part of the enquiry undertaken by the Aboriginal Tribes welfare Enquiry Committee. He argues that the *mavilons* are a North Malabar tribe omitted in the 1941 Census and he supports the view both of Thurston and Stuarts

(Ayyappan 1948). In *The Tribes of Kerala*, Luiz (1962) discusses the customs of 48 tribes in Kerala. He had tried to record the details about the origin, life style, social structure, rituals and so on.

METHOD OF STUDY

The objectives of the study are to identify and document the indigenous agriculture knowledge and practices which were prevalent among the Mavilan tribal community.

The study is based on the fieldwork carried out in the Panathady Panchayath of Kasaragod district during 2006. In this paper, an attempt has been made to study the indigenous agriculture knowledge and practices among the Mavilan community. The data were collected by the personal interviews and discussions with farmers, aged persons among the community members. The importance of traditional agricultural practices of the community has been analyzed and an attempt has also been made to study the changes that have occurred in the agriculture practices of the community. In Panathady panchayath, the Mavilan community has 350 households and their total population is nearly 2200.

RESULTS AND DISCUSSION

Slash and Burn Cultivation

Shifting cultivation, swidden agriculture or simply 'Jhum' slash and burn is an ancient form of agriculture practiced by between 200 and 500 million people around the world today (Joseph and Cornell 2006). Slash and burn, agriculture of Neolithic origin, is widely practiced today in tropical forests. It is a technique for opening up and bringing under cultivation a patch of forest land. The standing growth is first cleared by axe or machete and, after a period of drying out, the accumulated debris is burned off. Thus, the inelegant name, slash and burn (Sahlins 1974)

In Kerala, most of the tribal communities practice slash and burn cultivation. For example, Muthuvan of Idukki, Mullukuruman, Kurichyan and Wayanad Kadar of Wayanad, Marati, Malavettuvan and Male kudiya of Kasaragod and Kurumbar of Attapadi are the major communities which practice slash and burn cultivation.

Kumeri Cultivation

In the month of Dhanu,¹ *Kiragan* (headman) and a group of people collectively decide and select a *kunnu* (hill) to be cultivated. Before cutting trees, the *Kiragan* decide *pothumu-hurtham* (best moment in time of cutting trees). At that time, all of them pray to their hill god for a good harvest. *Kiragan* offers tender coconut to the god. After that, *kiragan* select a *kotta* plant (*Grewia nervosa*). It is commonly found in the hill tracks of their settlements. They clean the surrounding area of the *kotta* plant; *Kiragan* cuts coconut and pour water around it. Then he cuts small branches of the plant three times with a knife and throws the branch to the next hill. They believe that, if *kottakole* (stem of the *kotta* plant) falls in the East-West direction, cultivation would be rather good.²

Cutting of trees and vegetation might go until *Makaram* slashed vegetations are left for several days to dry. In the month of *Kumbham* (a Malayalam month between months of February to March), the boundary of the plot is covered with branches. It is done to control the fire to be spread over, it is called *beeri*. The headman sets fire in the slashed area of the valley. After some days, they remove stumps and other unwanted wooden parts from the plots. Then they till the soil with *paruvae* (an implement used for *kumeri* cultivation). On the onset of monsoon, they sow seeds of different crops like *paru* (paddy, *Orizya* spp), *muthari* (ragi, *Eleusine coracana*), *thina*, *cholam* (maize), seeds of vegetables, pulses and oil seeds were also sown. *Kiragan* takes a handful of paddy and throw it to the field on the day of sowing. Sowing is a collective activity; all members take part in the operations. Women folk scratch the top soil with *paruvae* and then it cover the seeds after sowing the grains (Suresh 2003).

Diversity of Crops

Farmers in Mavilan cultivate different varieties of paddy. Some of the elders say that here 101 varieties of paddy were cultivated earlier. Some of the varieties are *chennellu*, *kaliyan*, *kayema*, *kunhutti*, *thadichil*, *karinthadichil*, *vellutharan*, *thonmuran*, *raven*, *paliyan*, *kallae kottae*, *ponnarian*, *maleyedubban*, *okapadi*, *chathappan*, *kaipan*, *chemmolu*, *koyivalan* etc. Some of the paddy seeds can be identified from their name, like *kunhutti*, it is very small seed and

kaipan is black in colour and bitter in taste. They also cultivate ragi, *kadu* (mustard) are sown in the *mappa*,³ maize is sown in the borders of paddy field and the vegetables are cultivated in different corners of the field.

Removal of Weeds

They remove weeds three times: the first time in the month of *Edavam* (month of May to June), bushes and tubers start to grow, they are removed and it called as *kollipayiedukkal*. The second time, weeds are removed in the month of *Karkkidakam* (month of July and August) and is called *randampani*. In the month of *Chingam* (month of August and September), they remove stumps and roots of certain tubers carefully from the cultivated land which is called *kathipani*. The *ariva* (sickle) is used for removing the climbers and creepers from the field.

Plant Protection

They used certain herbal medicines for protecting crops from diseases. They identified different types of diseases, for example *neeru vembu* (a type of disease) which affect the crops through water. As the remedy for this, they use bark of *punna* tree (*Calophyllum inophyllum*), make a powder and mix with water and then apply it on the affected plants. In rainy season, during the heavy rain, *thannuppu vembu* (a plant disease related to cold) affects the paddy. *Kathir vembu* affects the corn of the paddy. In order to prevent these diseases, they prepare a medicine from *kayakkam* (a river bush) and *avanakenna* (castor oil). They mix it and get a paste. This paste is placed in different corners of the field, which spreads its smell when the wind blows.

Most of the crops have the power to resist disease; but rarely insects attack the paddy. They used different types of herbal pesticides for destroying *nilapputhu* (soil worm). It is a kind of mixture, leaves of *mathalanaranga* (a kind of citrus plant), betel leaves (*Piper* spp.) and some other herbal plants. They apply medicine for *kathir vizhecha* (falling of corn), it derived from castor oil and *nannari* (*Hemidesmus indicus*) leaves. Another medicine prepared by using leaves of *perumthurumba*, *anayadi* (*Eliphantopus scaber*) and *vathamkolli* are crushed and mix with horse gram. This mixture is placed in different parts of the paddy field. It is placed in

the blowing direction of the wind. This technique was used to protect crops from microorganisms. For destroying *chazhi* (an insect), they use *peerakka* (a wild fruit). It is squashed and mixed with water until it becomes a paste. This is applied on the corn of the paddy in the early morning.

Protecting crops from wild animals is another major task. Wild animals, rats, sambar, bandicoots, rabbits etc. cause severe damage to crops. In the paddy field, they fix either reed or plantain leaves or sheaths to frighten the wild animals and this is called *marlu*. Mavilan people made traps for catching boars, rabbits, deers, rats and other wild animals. During the period of cultivation, they made temporary huts for watching crops at night, on the slope of the hill. Every day the headman checked every part of the agriculture field and each hut. At night time, they beat their *thudi* (a musical instrument) and sing songs for frighten the wild animals.

Harvest

Moorcha (harvest) begins in the month of *Kanni* (in the month of September to October). Before starting the harvest, they make a *kalam* (yard) in order to thresh the paddy. Two *kundam* (poles) are fixed in the threshing floor and bulls are tied on the poles to thresh the paddy. They begin harvest with cutting three *kathirs* (ear of corn), from these *kathirs* the *Kiragan* takes one with *polivalli* (*Lygodium pinnatifidum*), which is covered in *punna* leaf (*Calophyllum inophyllum*) and it is tied on the *kundam*. The other two corns are kept in the corner of the yard. Both men and women take part in the harvest. The reaped *katta* (the sheaf of corn) is brought to the yard, for threshing.

Storing Method

Paddy, ragi, *thina*, *thora* (*pulse* spp), and other grains are dried properly and kept in bundles called *mooda*. The *mooda* is made up of using straw. The sowing seeds are also kept in the *mooda* and it is hung above the hearth. Vegetable seeds are sown after being immersed in the cow dung, and pasted on the mud wall. Sometimes, they mix the seeds with ash, and paste them on the walls. The ash or cow dung protects the seeds from the attack of microorganisms.

CONCLUSIONS

Mavilan are the early inhabitants of the Kannur and Kasaragod district of North Kerala. Majority of them lived in the high land areas of these districts. In the past they had lived as food gatherers and hunters and later they became shifting cultivators. During early twentieth century, the system of agriculture serfdom existed in these areas. The landlord had possessed the ownership of land. They used the tribal people for their agriculture purpose. The landlord had given little freedom to engage *Kumeri* cultivation. At the same time, the landlord exploited their manpower for clearing forestland without knowing them. In that way the forest was transformed for pepper cultivation, coconut gardens and the farming of the other crops.

The tribal people, especially Mavilan, followed a traditional way of agricultural techniques. Their agriculture cycle starts from December and ends in November and they follow this practice depending on the seasons. They have very rich knowledge regarding the crops and its farming. Diversity of crops is another peculiarity of this kind of practice. They never used chemical fertilizers or pesticides. They used only organic fertilisers and pesticides for the protection of the crops. For storing seeds also they had their own indigenous methods.

Nowadays, Mavilan community is alienated from their own farming methods. There are various reasons for that: one of the major reasons is the non-availability of land. The tribal people depended on the landowners for *kumeri* cultivation. During 1950s, non-tribal people from southern part of Kerala migrated to their habitat and later they took over the forest land. The settlers have changed the land for mono crops and cash crop cultivations. They introduced new kinds of fertilizers and pesticides in that area. This has highly affected the indigenous agriculture. Government forest regulation policies also prevented them from *kumeri* cultivation. This indigenous community was forced to stop their agriculture practices and follow the mono crop cultivation. Presently, among the Mavilan

community, few are marginal farmers and majority of them work as agriculture labourers or wage labourers.

NOTES

- 1 It is a Malayalam month, starts from December to January. Their agriculture cycle is based on the Malayalam months and it begins from Dhanu and ends with *Vrichikam*. Other Malayalam Months are *Makaram, Kumbham, Meenam, Medam, Midhunam, Edavam, Karkkidakkam, Chingam, Kanni, Thulam and Vrichikam*.
- 2 Kallalan from the Nellikkunnu settlement and Muruna from the Mottenkochi settlement give the information relating the *pothumuzhurtham* practices.
- 3 Cutting bushes and branches are deposited in a corner of the paddy field.

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