Traditional practices for sustainable livelihood in Kandi belt of Jammu

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Received 26.09.10, revised 09.02.12

Present investigation was carried out with the 90 informants selected from nine villages of the Kandi belt of Kathua, Samba and Udhipur districts of Jammu division with the objectives to identify the important tree species having traditional uses in the kandi belt of Jammu region and document the traditional practices involving different tree species by the farmers of kandi belt of Jammu region in the sustainable development. Findings reveal that people of the kandi belt use Butea monosperma Lamk. Taub in Engl & Prantl leaves for making doona & pattals; Saccharum munja Roxb. (Khar-sarut) for roofing of houses, cattle sheds, dry fodder storage structures, boundary fencing of sheds, thatching for off-season/forced vegetable cultivation, broom, ropes, moodey and toys making. Acacia nilotica (L.) Willd ex Del., and Acacia modesta Wall & Roxb for making planker (Patta/Suhaga),panjali (Jungla of plough), as fencing material and for making indigenous tool (locally known as Sangi) used for fencing. Grewia optiva J.R. Drum. ex Burrett for making agricultural implements, handles of sickles, khurpi, kodal, making baskets and as fuel and fodder. Cassia fistula Linn; Brandis F. in Integrated Pest Management (IPM). Adhatoda vasica Nees for mulching, fruits ripening, roofing of kaccha houses and cattle sheds, and checks soil erosion. Dendrocalamus strictus (Roxb.) Nees for shabri, bamboo chairs, bamboo mats, etc. making.

Keywords: Kandi, Traditional, Doona, Pattal, Suhaga, Moodey, Panjali, Patta, Jungla, Sangi, Shabri, Indigenous

IPC Int.Cl. 8: A01, A61K 36/00

Jammu & Kashmir is the Northern most state of the country divided into three regions Jammu, Kashmir and Ladakh. Jammu region comprises of subtropical, intermediate and temperate areas. Maximum of area under subtropical belt is rain fed locally known as kandi belt. Most of the terrain of kandi is undulated and affected by vagaries of unpredictable weather further aggravated to prolonged dry spell. Moreover, marginal size of holding also adds to the worries of the farmers. In such conditions, something which provides sustainability, is the use of traditional knowledge-wisdom developed by the people over many generations for proper utilization of available natural resources. Rural people make traditional uses of natural growing vegetation in rainfed areas which provide sustainability to their farming system and also source of income. Apart from fuel and fodder, people make use of the tree namely Grewia optiva J.R. Drum. ex Burrett (locally known as Dhaman) for making baskets, handle of desi ploughs (daandi), handles of sickles. Butea monosperma Lamk. Taub in Engl & Prantl (Locally known as palah) leaves are used for making plates and bowls (locally known as pattal /duna). These leaf plates and bowls commonly used to serve lunch/dinner in village functions/ceremonies. These are also known as poor man’s utensils. Being evergreen in nature, palah leaves are available around the year. A local community named as Dasaalies has adopted this traditional practice from generations as a source of income. Acacia nilotica (L.) Willd ex Del. (Kikar), Acacia modesta Wall & Roxb (Ferlai) are used for making agricultural implements like planker (suhaga) and panjali. Their spiny branches are most promising material for fencing of crop fields. Their small twigs used for cleaning of teeth and strengthening the gums. Cassia fistula Linn; Brandis F. (Karangal) wildly grown tree is found suitable for the control of aphids attack. Saccharum munja Roxb. (Khar-sarut) are used for the purpose of thatching and also for roofing of traditional structures known as kullas. Similarly, a wild grown shrub known as Adhatoda vasica Nees

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(branker) is traditionally used in mulching, fruit ripening and for medicinal purposes. Its leaves are mixed with soil at the time of preparation of the field for paddy nursery. This practice is effective as Adhatoda leaves increase soil fertility, act as insecticide and make the uprooting of seedlings easier. So, keeping in view the immense use of traditional agricultural practices, the study has been conducted in Kandi belt of Kathua, Samba and Udhampur districts of Jammu region with the following specific objectives

1. To identify the important tree species having traditional uses in the kandi belt of Jammu region.
2. To document the traditional practices involving different tree species by the farmers of kandi belt of Jammu region in the sustainable development.

Methodology

Present investigation was carried out in the Kandi belt of Kathua, Samba and Udhampur districts of Jammu division. The Kandi belt comprises of the area lying between Chenab and Raavi rivers containing dry hillocks of low elevation characterized by low rainfall, barren lands and fairly dense vegetation with intermixture of shrubs and rather small sized trees which are mainly of a deciduous and thorny or spiny type. Agriculture in this belt is highly risk prone with great dependence on rains. People largely depend on the available natural resources as a source of their livelihood.

From the Kandi Belt of Kathua, Samba and Udhampur districts, 3 villages from each district were randomly selected. The selected villages include, Chandwan, Dinda Amb and Bhaiya from District Kathua, Dub Tallur, Sarna and Chilla Danga from District Samba and; Banara, Garnei and Piuni from District Udhampur. From each selected village, 10 informants were selected at random thereby constituting a sample of 90 informants. The respondents were apprised of the objectives and purpose of study and their consent was taken for the documentation of the traditional practices being studied and its publication.

Indigenous practices followed by the farmers of Kandi belt were identified through preliminary survey of the area and in consultation with elderly people of the society. The indigenous practices followed by the farmers which were identified for the present study include the traditional use of Butea monosperma Lamk. Taub in Engl & Prantl, Grewia optiva J.R. Drum. ex Burrett, Acacia nilotica (L.) Willd ex Del., Acacia modesta Wall & Roxb., Cassia fistula Linn; Brandis F., Adhatoda vasica Nees, Saccharum munja Roxb., Dendrocalamus strictus (Roxb.) Nees. The selected informants were interviewed through group discussion collectively, so as to ensure on spot folk validation and triangulation of the people. The conversation followed was documented by the researcher. After discussion followed the practical session so as to records actual working with identified indigenous practice. The final results were documented along with opinion and expressions of the respondents.

Observations

Butea monosperma Lamk. Taub in Engl & Prantl

It is a wild tree found in the forests and degraded lands of the Kandi region locally called Palah. Its leaves have religious values. As per the prevalent mythology, the leaves of Butea monosperma Lamk. Taub in Engl & Prantl are used in “havan yagya” and its bowls and plates locally known as doona & pattal are specially required during pittarshraad. On the occasion of local festival namely dharma dhihara; water filled in the pitcher and covered with the bowls of palah, filled with grain is donated. Besides, on marriage functions and other ceremonies, use of palah bowls and plates for serving lunch and dinner in rural and sub-urban areas has been a common practice since time immemorial. These are also called poor man’s utensils. In the sub-tropical belt of Jammu region, there is a particular community known as dasaalis who make doona & pattal and follows it as a profession. This practice is a source of livelihood for this community.

The leaves of palah used for making doona & pattal are brought from the nearby forest and degraded lands. The informants reported that after procuring the leaves, they are separated one by one. For making pattal, 6-8 leaves are stitched together using the pith (Kana) of Saccharum munja Roxb. (Khar-sarut). For making bowls, 3-4 leaves are stitched in the shape of the bowl. As reported by the respondents, it takes 60-70 minutes to make 100 pattals and 30-35 minutes to prepare 100 doonas (time efficiency). 100 pattals fetches Rs. 40-45 and 100 doona Rs. 25-30 in the local market. During marriages season and other ceremonies there is high demand of these materials. On an average, one
household can make 400 pattal and 600 doona during a day. Engaged in this profession one family earns Rs.300-350 per day. However, earning depends on the work efficiency and demand.

The raw material for doona and pattal, i.e. Palah leaves and pith (Kana) of Saccharum munja Roxb. (Khar-sarut) are obtained from forest areas involve no cost. Whereas, manpower involved in its preparation comes from the family. The constraints faced by the respondents in preparation and marketing of doona & pattal were also discussed. Some of the constraints are:

- Low selling price of doona & pattal.
- Deforestation leading to non-availability of leaves of palah.
- Seasonal nature of work.
- Decline in the demand of doona & pattal because of emergence of disposals made of thermocol and plastics.

Suggestions

- Market linkage of artisans should be strengthened.
- Self Help Groups (SHGs) of artisans should be formed.
- Micro credit facility should be made available for artisans.
- Forest protection measures should properly be enforced.

Saccharum munja Roxb. (Khar-sarut)

It is a shrub and locally called Khar. It has innumerable traditional applications. It is locally available in the forest area, banks of rivers and barren lands. It is used for roofing of houses (thatched roof), cattle sheds, dry fodder storage structures, boundary fencing of sheds, thatching for off-season/forced vegetable cultivation. Its particular use for seasonal roofing of the mushroom sheds acts as insulator in mushroom cultivation. It is also being used for making decorative huts at picnic spots.

The cutting of Saccharum takes place in the month of October-November. The harvested material is dumped in the shape of piles for sun-drying before putting in final use. Saccharum is used as:

- Broom making.
- Rope making for tying the piles of crops like maize, wheat etc.
- Stools and chairs locally known as moodey.

Acacia nilotica (L.) Willd ex Del. and Acacia modesta Wall & Roxb

Locally known as kikar and ferlai respectively, these tree species are abundantly available in the forest and degraded lands, on field bunds, etc. Being hardy in nature, they withstand under moisture stress conditions. Their traditional uses provide farmers sustainability to their farming system. Some important traditional agriculture tools are made from them:

- Planker (Patta/Suhaga)
- Panjali (Jungla of plough)
- Spiny twigs are used as fencing material, because, there is a problem of stray animals in severe winter when nomads migrate their animals from higher reaches to the plains of kandi as such it becomes necessary to fence the crop fields.
- Indigenous tool (locally known as Sangi) used for fencing.
- Small twigs are commonly known as dantuns used for cleaning the teeth and strengthening gums. The selling of dantuns also fetch some income to the farmers.

Grewia optiva J.R. Drum. ex Burrett

Locally known as Dhaman, it is a wild grown tree in kandi belt. It has many traditional uses like:

- For making agricultural implements like main part of desi plough known as dandi. Farmers were of the view that dandi made of Dhaman tree is more durable.
- Handles of sickles, khurpi, kodal.
- Tender twigs are most promising material for making baskets.
- Fuel and fodder- there is scarcity of fodder in severe winter months as well as in hot summer as such, green leaves are most suited green fodder for the animals.

Cassia fistula Linn; Brandis F.

A wild tree locally known as Karangal and serves as ‘blessing in disguise’. It bears yellow flowers commonly used for decorative purposes. Farmers were of the view that they prefer to sow mustard crop
in those fields which have *Cassia fistula* Linn; Brandis F plantation on their bunds because this tree is used for controlling attack of aphid in the mustard. Mustard crops sown in *kandi* area during end of October or start of November, bears flowering in February-March which coincides with the flowering of *Cassia fistula* Linn; Brandis F. It is very common that there is attack of aphid in mustard crop and as per the habit of aphid, it is very much attractant to yellow color. Its plantations on the bunds with profuse flowering diverts the attack of aphids to itself instead of the mustard crop thereby saving the prime crop. This traditional practice is being practiced by the farmers since time immemorial. Such a practice after getting scientific validation can be known as one of Integrated Pest Management (IPM) techniques.

**Adhatoda vasica** Nees

Locally known as *branker*, it is a wild shrub widely found in the *kandi* belt of Jammu region. Some of its common uses are as:

- **Mulching:** Leaves of *Adhatoda vasica* Nees are used for the purpose of mulching. Due to pungency, they repel the birds and also protect the seedlings from severe showering and scorching sun. These leaves are also allowed to decompose in the field resulting in enhancement of organic matter.
- **Farmers use** *Adhatoda vasica* Nees leaves in ripening of mango fruits. The leaves provide heat to the fruit (wrapped in them) which facilitates the process of fruit ripening.
- **Roofing of** *kaccha* houses and cattle sheds is also done with this shrub, locally known as *Laadi*.
- **Adhatoda vasica** Nees plantation serves as a check of soil erosion. The terrain of *kandi* is almost undulated resulting in colossal soil erosion. The farmers plant *Adhatoda vasica* Nees across the slope which protects the soil from erosion.
- **Bee keepers shift** their apiaries to *kandi* areas from onset of winter. *Adhatoda vasica* Nees bears flowering from the month of February. Flowers being a rich source of nectar facilitates bee keeping.

**Dendrocalamus strictus** (Roxb.) Nees

It is a wild grown tree also planted on the uncultivated area of subtropical *kandi* belt. People of the area make its innumerable traditional uses. Some of people’s livelihood is based on it. They make baskets of bamboo, bamboo case locally known as *shabri*, bamboo chairs, bamboo mats, etc. There is a particular community in Jammu region who has adopted this profession from generations. They earn their livelihood from this traditional venture since time immemorial.

**Conclusion**

Indigenous technological knowledge is an accumulated experience, wisdom, and know-how which is unique to a culture, society or community that provides valuable insight to sustainable farming process. It can be concluded form above findings that farmers of the *kandi* belt of Jammu region have accumulated knowledge with regards to the use of available wild vegetation as a source of livelihood and sustainability. It has been found that the tree species under study were being utilized for agriculture and domestic purposes. The documented practices can be widely popularized in the other areas where there is abundance of these tree species. Indigenous technological knowledge is region specific however, it can be applicable to similar agro-climatic conditions because most of the indigenous technologies have got scientific rationale. It is imperative to re-examine and then gradually re-introduce effective traditional technologies for sustainable agricultural development. The ecological sound designs or elements of indigenous practices which have been losing importance in high technology system must be saved and synthesized appropriately to attain sustainable agricultural development. The need of the hour is to cerate awareness among the people to appreciate indigenous knowledge system and its role with required improvements in resource utilization and management. Moreover, sharing of this accumulated knowledge with the farmers will help in restoring the pride in their traditional innovative potential.

**Acknowledgement**

The authors are highly grateful to the people of the villages Chandwan, Dingа Amb and Bhaiya from District Kathua, Dub Tallur, Sarna and Chilla Danga from District Samba and; Banara, Garnei and Piuni from District Udhampur for cooperation and providing the requisite information both theoretical as well as practical for the preparation of the present document. Special thanks to the elderly people
namely Mohmmad Shaffi, Rattan Singh, Thouru Ram, Hans Raj, Ram Dass of the villages surveyed for their company during the course of investigation.

References