



E-ISSN: 2278-4136

P-ISSN: 2349-8234

[www.phytojournal.com](http://www.phytojournal.com)

JPP 2020; 9(1): 2272-2274

Received: 22-11-2019

Accepted: 24-12-2019

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## Common constraints faced by the nilgiris tribal women while adopting indigenous practices

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**Abstract**

The knowledge thus generated over the years is time tested and has the attribute of eco-friendliness. Such knowledge is called the 'indigenous technical knowledge (ITK)' or 'local knowledge' or 'traditional knowledge'. Nilgiris district of Tamil Nadu was purposively selected because it is one of the districts in Tamil Nadu in which more percentage of tribal population has been reported. Kotagiri and Udhagamandalam blocks were purposively selected because these two blocks have relatively more percentage of the selected tribal communities. Multistage Random sampling method was adopted in selection of the respondents. Ex post facto research design was adopted. The total sample size is 180. An overwhelming majority (92.78%) of the tribal farmers expressed poor soil fertility as a major constraint for the adoption of indigenous technologies. The major problems faced by the tribal farmers in the adoption of indigenous technologies were uneven topography of land (87.22%), and less yield and income (85.56%).

**Keywords:** Indigenous technical knowledge, tribal communities, Nilgiris district

**Introduction**

India lives in villages. The main occupation is agriculture, because 70.00 per cent of the population is involved in this occupation. Several experiments by the farmers, on trial and error basis have been taking place in the field of agriculture and allied fields over thousands of years. They made a wise use of available natural resources and devised many technologies to increase the quality and quantity of the output of various enterprises, they had undertaken. The knowledge thus generated over the years is time tested and has the attribute of eco-friendliness. Such knowledge is called the 'indigenous technical knowledge (ITK)' or 'local knowledge' or 'traditional knowledge'. This knowledge is based on experience, often tested over centuries of use, adapted to local culture and environment and is dynamic and changing. The Nilgiris is the moderately populated district of Tamil Nadu that has a rich tribal presence. The tribal people differ in their social organisations and marital customs, rites and rituals, foods and other customs from the people of the rest of the state. Most of the tribal people practice their indigenous technologies in agriculture. Though they are benefited out of it they also face numerous constraints which are detailed in the article.

**Materials and Methods**

Nilgiris district of Tamil Nadu was purposively selected because it is one of the districts in Tamil Nadu in which more percentage of tribal population has been reported. Kotagiri and Udhagamandalam blocks were purposively selected because these two blocks have relatively more percentage of the selected tribal communities viz., todas, irulas and kotas. Of these, three villages from Kotagiri block and three revenue villages from Udhagamandalam block were further selected considering the maximum number of identified tribal habitations viz., to das, irulas and kotas. Totally 180 respondents were considered for assessing their level of awareness and adoption of the rational ITKs in horticultural crops, animal husbandry and environmental conservation. Multistage Random sampling method was adopted in selection of the respondents. Ex post facto research design was adopted. The total sample size is 180.

**Results and Discussion**

The results are briefly tabulated and explained in detail below

Common Constraints Experienced by the Tribal Farmers in the Adoption of Indigenous

**Technologies**

The constraints faced by the tribal farmers while practicing ITKs were gathered in the adoption of indigenous technologies. The results have been presented below

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### Common constraints faced by the tribal farmers in adopting the ITKs

The following were the constraints encountered by the tribal farmers. The results have been displayed in Table 1.

**Table 1:** Distribution of tribal respondents according to the common constraints faced in adoption of ITKs practices (n = 180)\*

S. No.	Constraints	No	percentage
1	Poor soil fertility	167	92.78
2	Small and fragmented land holding	115	63.89
3	Uneven topography	157	87.22
4	Non suitability to location	136	75.56
5	Illiteracy	153	85.00
6	Non availability of irrigation water	145	80.56
7	More time requirement	130	72.22
8	High religious belief	139	77.22
9	Lack of interest	134	74.44
10	Less recognition from others	132	73.33
11	Less yield and income	154	85.56
12	Lack of adequate skill	142	78.89
13	Nonexistence of the technologies in the location	125	69.44
14	Poor establishment of crops	138	76.67
15	Availability of modern technologies	115	63.89
16	Lack of knowledge in ITK practices	100	55.56
17	Lack of principle knowledge	97	53.89

It is observed from the Table 1, that the tribal farmers expressed 17 common constraints as a result of their experience and exposures while adopting the ITKs.

Among the problems faced, an overwhelming majority (92.78%) of the tribal farmers expressed poor soil fertility as a major constraint for the adoption of indigenous technologies. The major problems faced by the tribal farmers in the adoption of indigenous technologies were uneven topography of land (87.22%), and less yield and income (85.56%). Most of the tribal farmers expressed their illiteracy (85.00%) and non-availability of irrigation water as their common major constraints (80.56%). More than three-fourth (78.89%) percentage of the tribal farmers encountered the problems with lack of skill and higher religious belief (77.22%). Almost a similar percentage of the tribal farmers (76.67%) expressed poor establishment of crops and non-suitability of the ITKs to their location (75.56%) as the major constraint to adopt the ITKs. Nearly three-fourth (74.44%) of the tribal farmers had lack of recognition from others (73.33%).

A vast majority of the tribal farmers (72.22%) encountered a common problem of more time requirement while adopting ITKs. Generally over a period of time farmers follow ITKs with a good blend of modern technologies to maintain sustainability of the local ecosystem. Non-existence of the technologies in the location (69.44%), small and fragmented land holding (63.89%), Availability of modern technologies (63.89%), lack of knowledge in ITK practices (55.56%) and lack of principle knowledge (53.89%) were the other major constraints put forth by the tribal respondents.

#### Suggestions for tribal respondents to enhance their standard of living

- Regular trails and demonstrations on indigenous farming techniques should be arranged periodically to encourage the farmers to take up valid indigenous farming practices
- Blending indigenous traditional knowledge with modern practices
- Crop loans may be advanced to the farmers to encourage them to take up indigenous technologies in farming

- Extension workers should encourage farmers to adopt the indigenous traditional practices.
- Local KVKs and agri based NGOs should look at the local rational traditional knowledge with due consideration and be ready for its proper assessment and promotion.
- Training programmers should be organized by different institutions to include tested and remunerative / promising traditional indigenous practices that are most appropriate and suited to the local conditions.
- The promotion of Indigenous Technological Knowledge (ITK) should ensure that local communities are involved, local resources are judiciously used, ecological cycles are established and resources are shared in an equitable manner leading to the overall wellbeing of the agricultural community.
- Because of the land tenancy system, people from the plains have occupied the lands of the tribal farmers and they are cultivating crops with inorganic fertilizers, pesticides and fungicides. Government should intervene and address this issue

#### Conclusion

The local extension authorities should make an analytical assessment of these specific constraints and must provide appropriate solution through modern extension approaches. As ITKs are their tradition bound practices appropriate intervention by the local extension authorities could help to promote their adoption in a great extent. Proper recognition may be given to the framers following rational ITKs regularly.

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