

Study of Farm Forestry system with special reference to rural areas of East Nimar Region of M.P. India

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Abstract

Farm forestry is a name used to grow woody perennials with herbaceous crops. Farm forestry is an ancient land use practice with multidisciplinary objects. The observations show the status and involvement of farmers in caring, conservation and management of farm forestry system. The survey indicate that scientific knowledge for management of farm forestry system is quite poor and needs assistance from the government and other non-government organizations.

Key words: Farm forestry, Biodiversity.

In many areas the tradition of growing trees on the farmland exists. It is a kind use system where woody perennials like trees, shrubs and bamboos are growing combined with herbaceous crops. Farm forestry is a collective name used for this. Farm forestry is a name for an ancient land use practice, where inland is used for agriculture, forestry and animal husbandry. The main objective of farm forestry is to optimize the production and economic return percent unit area, especially in rural communities. Farm forestry focuses on the wide range of trees grown on farms and other rural areas. Many of these trees are multipurpose providing a range of benefits². The present study is made to see the status and involvement in activities performed by farmers and rural people in caring conservation and management of farm forestry system as

it is beneficial in its economic, ecological and social aspects.

To study the farm forestry system in the field, five sites were selected in nearby rural areas of village Bhandariya, Badgaon Mali, Jaswadi, Borgaon Bujurg and Rehmanpur. One field in each site has been taken for survey.

Survey was made with perennial trees and shrubs in the fields of all the sites. These trees were categorized in different groups according to their economic importance.

In order to judge the knowledge of farmers and other rural peoples, a simple rating scale was used. The various items in the knowledge scale were rated on the basis of yes or no rating.

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Table 1. Knowledge of Farmers regarding Farm Forestry

S. No.	Knowledge area	Rating Percent	
		Yes	No
1	Meaning of Farm Forestry	10	90
2	Identification of plants	100	-
3	Uses of particular trees	100	-
4	Methods of cultivation	78	22
5	Methods of harvesting	80	20
6	Methods of proper management for growth	20	80
7	Methods of conservation	70	30
8	Importance of trees	100	-

Table 2. Plant species of farm forestry at different sites

S. No.	Plants species	Sites				
		1	2	3	4	5
1	Fuel Plants					
	(a) <i>Acacia nilotica</i> (L.)Del.	+	+	+	+	+
	(b) <i>Azadirchta indica</i> A.Juss.	+	+	+	+	+
2	Timber Plant					
	(a) <i>Dalbergia sissoo</i> Roxb.	+	+	+	+	+
	(b) <i>Tectona grandis</i> L.f.	+	+	+	+	+
3	Fruit plants					
	(a) <i>Aegle marmelos</i> Corr.	+	-	-	-	-
	(b) <i>Annona squamosa</i> L.	-	-	+	-	+
	(c) <i>Emblica officinalis</i> Gaertn.	-	-	-	+	+
	(d) <i>Madhuca indica</i> J.F.Gmel.	+	+	-	-	-
	(e) <i>Mangifera indica</i> L.	+	+	+	-	+
	(f) <i>Moringa oleifera</i> Lam.	-	-	-	+	-
	(g) <i>Syzygium cumini</i> (L.)Skeels	+	+	+	-	+
	(h) <i>Tamarindus indica</i> L.	+	-	-	-	-
	(i) <i>Zizyphus sp.</i>	+	+	-	+	-
4	Fodder plants					
	(a) <i>Hardwickia binata</i> Roxb.	-	-	+	-	-
5	Other Plants					
	(a) <i>Butea monosperma</i> (Lam.) Kuntze	+	+	+	-	+
	(b) <i>Bombax ceiba</i> L.	-	-	+	+	+
	(c) <i>Dendrocalamus strictus</i> (Roxb.)Nees	+	+	-	-	-

*Site 1- Bhandariya village, site 2- Bargaon mali. Site 3- Jaswadi, site 4- Bargaon bujurg, site 5- Rehmanpur.

+ → present and - →not present

Farm forestry is a combination of agriculture and other land use technologies, which results in increase in productivity, sustainability, equity and to achieve other social goals. The peoples are engaged in all the agricultural activities and acting as workers as well as supervisors.

In knowledge based survey it is noted that people were efficient in use of the products. Farmers were engaged in development and care of trees of the field. But at the same time many of them were not having adequate knowledge of cultivation, harvesting and proper uses.

There is a great variety is seen in the flora of the agro-forestry system in all sites. With their applied aspects various trees were used for nutrition, fodder trees for live stock, timber and energy tree for shelter and fuel work, medicinal trees to care diseases and trees for minor products.

Combining trees with food crops on

cropland forms yield many benefits as reduction of pressure on forest, efficient recycling of nutrients by deep rooted trees on the site, reduction of surface run-off, nutrient leaching and soil erosion, increase in soil nutrients and also improvement of microclimate¹.

At some field in the area, shelter belts of *Tectona* and *Eucalyptus* trees are also seen in a planned pattern, which also act as wind breaks. Encouragement of commercial and non- commercial farm forestry system in the fields leads to improve the environment. It is a need for the integration of traditional knowledge and formal science to conserve biodiversity and for sustainable development of our valuable resources.

References:

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2. Krishna Murthy R. (2011) *Agrobios* 6(X): 40-41.