

CONSERVATION OF SACRED GROVES IN KOLLI HILLS, TAMIL NADU: STRATEGIES FOR SUSTAINABLE MANAGEMENT

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Introduction

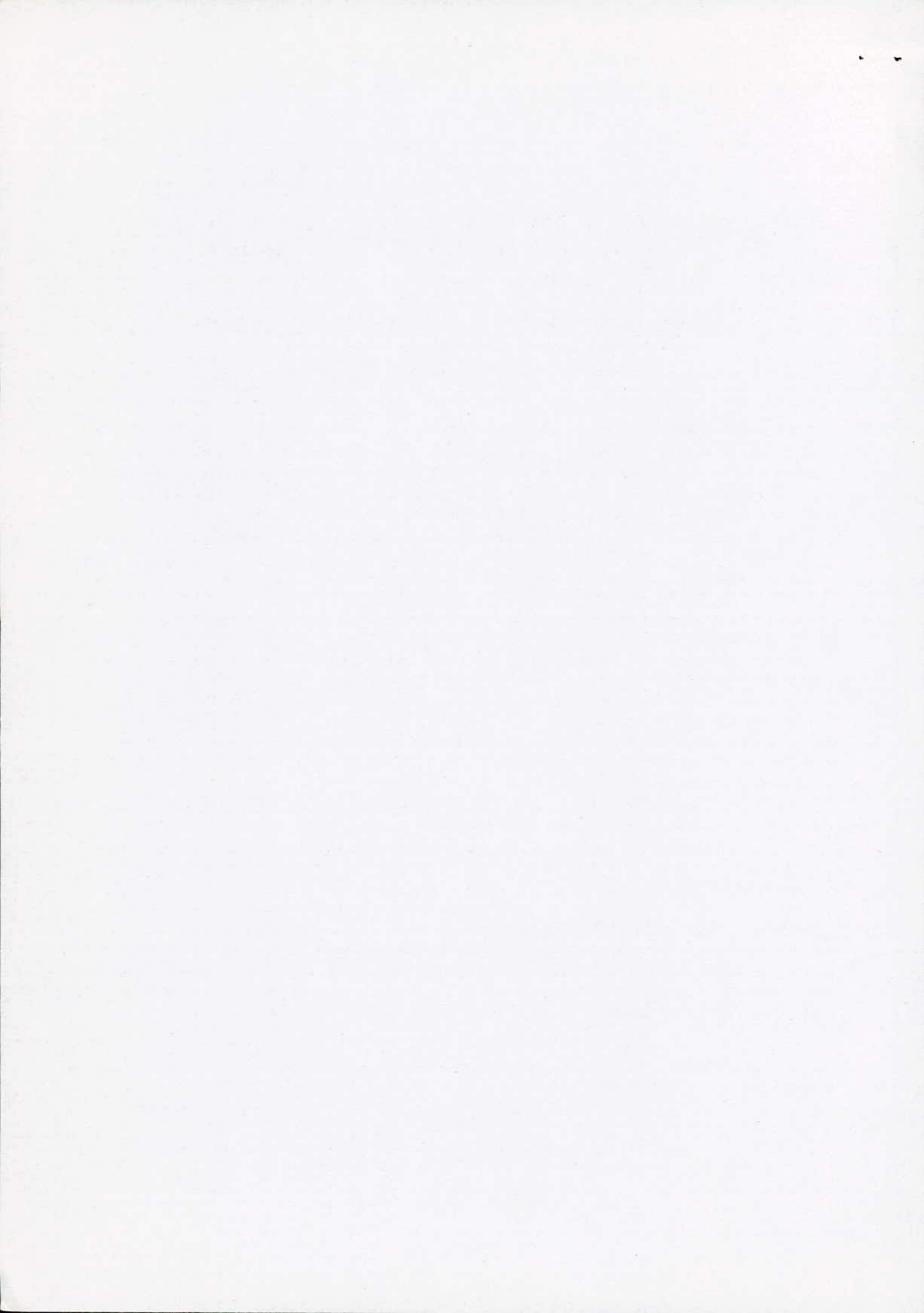
People have always lived in close association with nature and continue to depend on natural resources for major needs such as food, shelter and medicine. This association and dependence have led humans to treat plants, animals, rivers and mountains as integral part of their cultural life. Many such components of nature have become objects of reverence and veneration. In this process, human being had evolved various mechanisms for natural resource management and conservation strategies based on their belief and traditional wisdom.

India is ranked as one of the 12-mega diversity rich countries of the world and is a signatory to the Convention on Biological Diversity (1994). In this regard, numerous efforts have been made by the Government of India to sustain and conserve biodiversity. Conservation efforts through public funds can broadly be classified into two groups: *in situ* conservation pursued through National Parks, Protected Areas, Biosphere Reserves and World Heritage Sites and *ex situ* conservation pursued through Botanical and Zoological Gardens and Gene Banks. While the above are widely recognised efforts, conservation in the public domain - Community Conservation or *in situ* conservation by rural and tribal women and men remain largely unrecognized and un-rewarded (Swaminathan 2000). Traditional communities continue to possess the traditional knowledge to use and preserve large number wild relatives of cultivated plants, birds and animals. Tribal and rural farming communities have a long cultural tradition of serving as custodians of genetic wealth. However, it has to be noted that the last remaining such tribal populations in India live in the mountains and hills. The efforts by communities in nature conservation including sacred groves are hardly addressed by mainstream conservation agencies. Sacred groves are one such traditional *insitu* community conservation systems (Prakash Rao 1996).

Sacred groves are part of a landscape, often a forested ecosystem, with well defined geographical features, delimited and protected by traditional societies for cultural and religious reasons (Ramakrishnan et al. 1998). These groves are protected through customary taboos and sanctions, with significant cultural and ecological implications; the protecting institution may be the priest, a temple trust, or the community as a whole (Gokhale 2001). Protection was reinforced by recognizing them as the focal point for varied levels of social interaction (Ramakrishnan et al. 1998) and Sacred Grove conservation is a practice of the ancient way of *insitu* conservation of biological and genetic diversity (Mithra and Pal 1994). Traditional belief and value systems supporting sustainable management of natural resources and their conservation disintegrated in the last few decades thanks to modern developments that has gradually led to control and manipulation of the natural resources in the Sacred groves. This paper examines the role of Sacred Groves in wild plants conservation, associated believe systems of Malayali tribes in Kolli Hills, Tamil Nadu. Current status of the groves and various strategies for the conservation sacred groves are discussed.

Settings

Kolli Hills is located in the extreme eastern part of Namakkal district. It falls within the following coordinates, Longitude: 78°17'05"E to 78°27'45"E and Latitude: 11°55'05"N to 11°21'10"N in S.O.I topo sheets 581/8. The total block area is 441.41sq.Kms. The altitude of the hill ranges from 180 m at the foothill to 1415 m at the plateau. The hill range stretches 29kms from north to south and 19km from east to west. Kolli Hills has an area of 28,293 ha. Human habitation is spread out into 247 hamlets and the area is divided into 14 Nadus which also parallel the jurisdiction of the 14 elected "Revenue Village" Panchayats, in accordance with the laws for local village elected bodies and governance of Tamil Nadu and the Govt. of India.



The inhabitants of Kolli Hills are known as Malayalars. The Malayali community is one of the largest tribal groups in Tamil Nadu inhabiting the hill ranges in the northwestern parts of Tamil Nadu. They constitute more than 98% of the total population (33,888) of Kolli Hills, living in 6840 households as per 1991 census of which the tribal families constitutes about 6,613. The population constitutes 17,207 of males and 16,681 of females. The density of population is 119 persons per sq.km. The people of the hills belong to two major communities, the scheduled tribes and scheduled castes. History of Malayalis shows that they are the principal inhabitants of the Talaghat hills, their chief settlements being Shervaroys, Kalrayans, Chitteris, Kollimalais and the Pachamalais. They originally belonged to the Vellala caste of cultivators and have migrated from Kancheepuram to the hills when the Muhammadan rule was dominant in South India. Prior to Malayalis, vedars or vettuvars (hunters) were the predominant group in the area (Thurston 1909). The sangam literatures as well as the myths prevailing among Malayalis refer to the succession of the migrants over vedars. The period prior to malayalis probably could have been characterized by pristine ecosystems in which the vedars were essentially hunter-gatherer group. The invasion and the settlement of Malayalis is a crucial point in the ecological history of kollihills in which the pristine ecosystem must have changed to partially altered ecosystems. Malayalis brought agriculture to kollihills, which led to periodic manipulation with partial domestication of resources. During the process of their settlement these malayali tribal people have left a patch forest near by their settlement for veneration of their god and goddesses and forefathers. These relicts of the past vegetation are known as Sami Sholai in Kolli Hills.

Sacred Groves in Kolli Hills

These *Sami Sholai* (Sacred Forests) are found in the midst of varying agro ecosystems, forest boundaries on hilltops and slopes distributed across the geographical area of Kolli Hills. Grove sizes ranges from one hectare to five hectare. During the field survey, around two hundred and forty sacred groves have been recorded. Of these, according to the people, eighty percentage of the groves had a lush forest cover earlier and now becoming just merely a sacred place. Due to the changing social conditions size and structure of the groves are being altered. Fore father, Mother goddesses and Peruman workships are most prevalent in groves of Kolli Hills. Many of the groves are managed by individual family, traditional panchayat in Patta land as well as in Poromboke land as common property. Some of them are found in the territory of reserve forest. Sacred groves of Kolli hills harbors several rare and endangered species of Eastern Ghats. Rare species like *Myrstica dactyloides Gaertner*, *Persea macrantha (Nees) Kostern*, *Philicium decipens*, *Canarium strictum Roxb*, *Alseodaphne semecarpifolia Nees*, *Ammora rohituka (Roxb.) Wight & Arn*, *Agalaya eloignoides var courtalensis*, *Elaeocarpus serratusL*, *Lannea coromandalica*, *Michelia champaca L*, *Toona ciliata M.Roemer* found in the sacred groves. These relict forest patches have conserved by the Malayali Tribal community through community control mechanism by evolving several taboos and restrictions (Box 1).

Box 1: Taboos, Belief Systems Associated with the Sacred Groves in Kolli Hills

1. People should enter in to the grove only after having bath.
2. People should not enter in to the groves with footwear.
3. People should slaughter Goats, Chickens 32 feet away from the main deity.
4. Women should not enter in to the grove for 5 days during their menstrual period.
5. Girls attained puberty should not enter in to the grove for 90 days.
6. Women should enter in to the grove 108 days after delivering the child.
7. Women should not enter in to the groves after 5th month of pregnancy.
8. People who have attended death ceremony should not enter in to the grove for next 21 days.
9. Felling of trees in side the groves are prohibited.

These relict wild patches are the repository of several medicinal plants and source of non-timber forest produce for the community. They serve as source of perennial source water for near by agricultural systems. These groves are the place for community gathering during festivals. Although several taboos and believe system of the people protected these remnant forests, groves are facing threats now. The survival of the existing sacred forest patches has becoming questionable due to various factors (Box2).

Box 2: Threats to the sacred groves in Kolli Hills

- o Encroachment due to Commercial agricultural crops like Tapioca.
- o Invasion of Alien weeds such as *Lantana camera*, *Parthenium hysterophorus*, replaces the native plants.
- o Removal and clearances of weeds along with wild saplings during festival time.
- o Dilution of beliefs systems in to Superstition due to education and increasing economic status
- o Introducing economically important plants such as *Coffea arabica*, *Elettaria cordanomum*.
- o *Piper nigrum*, *Ananas sativas* in certain groves.
- o Natural falling of old lofty trees vs poor regeneration of wild saplings.
- o Mass workship and interest towards constructing a temple in place of a deity.
- o Declining interest in protecting plants and erosion of Knowledge among younger generation.

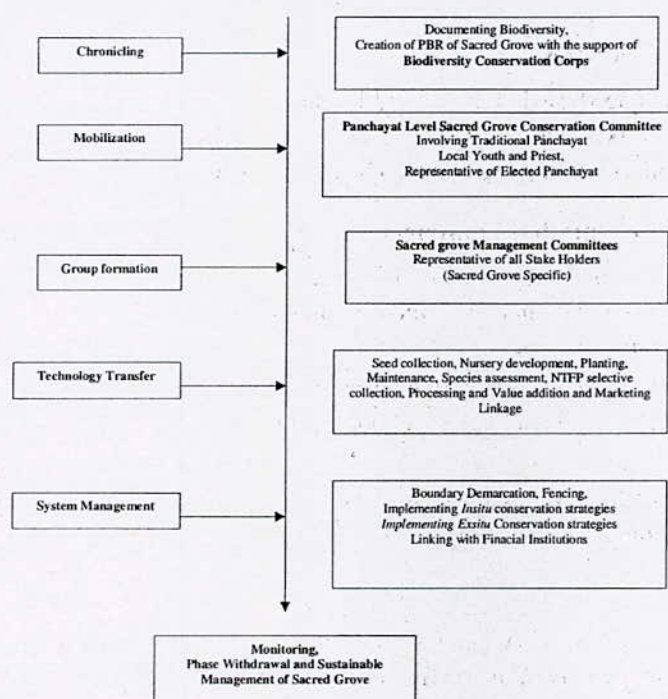


There are various stake holder are interacting with the sacred groves directly or indirectly for various reasons (Table 1). These actors are the responsible for the existence and changes in the status of the sacred groves in Kolli Hills. The current trend shows that a Participatory conservation approach is essential for Conservation and Sustainable Management of Sacred Groves.

Table1: Multiple stake holder interaction with the Sacred groves in Kolli Hills

Direct	Indirect
1. Local people (Men and Women)	6. Pilgrim tourists
2. Village Governing Body (Local Panchayat)	7. Revenue Department
3. Priest (Pusari)	8. Occasionally the Forest Department
4. Traditional Healers (Nattu Vaidyars)	9. Elected Panchayat
5. NTFP gatherers	10. Hindu Religious Board
	11. Markets
	12. Non Governmental Organization
	13. Scientific Community

Strategies for Sustainable Management of Sacred groves in Kolli Hills



A Suggested Approach for Conservation

I. Strategies for chronicling biodiversity in sacred groves

Local level grove specific sacred groves Biodiversity conservation corps should be formed and they should be trained to document the biodiversity of the sacred groves in People Biodiversity Register.

II. Strategies for Mobilization and Group formation

With the support of the respective panchayat, Panchayat level Sacred Groves Conservation committee should be formed. Besides, grove specific sacred grove Management committee should be formed involving representatives of all the stakeholders.

III. Strategies and Action for *In situ* Conservation and capacity building to manage wild plant diversity in Sacred Groves

Technical support to local communities is essential for the sustainable management of sacred groves. Local youths should be trained for Wild plants Species assessment, seed collection or propagation, Nursery development, Gap filling/ Planting, Weed Management, Maintenance of Sacred grove, Selective collection and marketing of NTFPs.

IV. Strategies and action for *Ex-situ* conservation

Operational procedures for multiplication of native wild plants of sacred groves and planting through sexual propagation, vegetative propagation and micro-propagation need to be developed.

Local communities should be enabled to raise nurseries of Rare; Endangered and Relict species of sacred groves and the Forest Department could purchase them as a buy back arrangement and shall be used in the restoration of degraded lands.

V. Strategies for sustainable livelihoods and sustainable use

Two of the major material dependence that leads to the degradation of sacred groves are: a) Demand for fuel wood and b) Demand for fodder.

If sacred groves need to be protected, village communities should be provided with alternatives for fulfilling fuel and fodder to asset less households that are currently depending on sacred groves.

Information on NTFP from sacred groves and possibilities of their value addition and marketing linkage might also help. Local communities should be linked for financial backup with the banking sector for enterprises developed around sacred groves.

Identification of people's priorities

Alternative needs of people should be identified in the light of protection and management of sacred groves. This may be basic amenities like roads, drinking water facilities and so on. These developmental programmes should be linked with the conservation programme. The state should respond to such a process.

VI. Strategies and action for data base management on wild plant diversity

Developing people Biodiversity Register for the sacred groves in a panchayat would help in possibly receiving rewards and recognition from the National Biodiversity Fund under Biodiversity Act 2002 and National Gene fund under PPVFR Act 2000 in course of time.

Compilation pooling all available information on sacred groves into a database or a network of databases could help various stakeholders including Panchayats, schools and colleges access information and recognize the stakeholders for their conservation effort.

Important sacred groves harboring unique species or vegetation type on fairly big in size could possibly be declared as Local Heritage Sites by Panchayats. These could get benefits from the Biodiversity Act 2002

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References

- GOKHALE, Y. 2001. Management of Kans in the Western Ghats of Karnataka. In K. N. Ganeshaiah, R. U. Shaanker and K. S. Bawa (Eds.) *Tropical Ecosystems: Structure, Diversity and Human Welfare*. Proceedings of the International Conference Tropical Ecosystems. Oxford-IBH, New Delhi. pp. 570-577.
- MITRA, A. and PAL, S. 1994. The Sprit of the Sanctuary. *Down to Earth*. pp 21-36, Jan. 31.
- PRAKASH RAO. Sacred Groves and Conservation. *WWF India Quarterly*, April-June 1996, pp 4 -10.
- RAMAKRISHNAN, P.S., SAXENA, K.G. and CHANDRASHEKARA, U.M. (eds.) 1998 *Conserving the Sacred For Biodiversity Management*. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
- SWAMINATHAN.M.S. 2000 *Government-Indudtry-Cilvilsociety: Partnerships in integral gene management*, *Ambio* Vol. No 2, pp 115-121.
- THURSTON, EDGAR 1909. *Castes and Tribes of South India Vol IV*. Madras

