An Ethnobotanical Trip To Ajodhya, Purulia, West Bengal, India

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Abstract-*Ethnobotany is a branch of Biological and Behavioural Biology that deals with the study of plants and environment in connection with the ethnic people of the virgin location or forested people. Man plant relationship is a prehistoric venture and culture consequently develop in a no fashion way where man verdict supreme power from nature to win the goal following survival of fittest. The overall nature in a path of whole trip including indigenous tribal men, women and their engagement have been studied well to record the ethno culture and ethnicity of Purulia district via a part of Paschim Medinipur and Bankura District respectively. The main theme is to encourage people to study more on nature and natural resources including ethnicity of undiscovered Purulia of lateritic Rarha part of lower Chotanagpur plateau.*

I. INTRODUCTION

Purulia is situated in the western part of West Bengal and lies between 22º 42´ to 23º 42´ N latitude and 85 º 49´ to 86 º 54´ E longitude. The geographical area of this district is 6259 sq. km. (19). People of India are verdict to visit everywhere in which West Bengal people are more reluctant to visit outside the home premises as natural or historical tourist. Therefore, more in a transitional way various tourists have been categorised including students who have the plea role to conserve the nature and natural resources for the educational purposes, nay for developing citizenship. So, by and large visit of some places nearby to home premises may get good information about the ethnicity of undiscovered places through an ecological expedition (tour) for the purpose of research and extension in ethno-purpose. The present study was a similar kind of study aims to foster the interest development among the people of research society to know something new for virgin part of Purulia, i.e. Ajodhya, West Bengal, India. The hill part is an extended part of Dalma hils and obviously an extended part of Eastern Ghat regions (21).

II.AREA UNDER STUDY

Study site was Ajodhya Hills and surroundings in Purulia District of West Bengal state. It was situated nearer to Jharkhand state in a side, adjoining Bankura District and Jhargram Distrct in another side with an undulated topography. Hills and hillocks, Ponds, Jheels, Springs, Dams, Conserve areas, Rice field, Agricultural sites, Horticultural sites, Nursery, Village gardens, and Roadside habitats have been taken to study the vegetation including wildlife in a sequential way. Tribes available in Puruliya district are Bedias, Bedomajhis, Bhumijis, Bhunias, Birhores, Chikbaraiks, Karmalis, Koramudis, Loharas,Mahalis, Mundas, Oraons, Paharias, sabars and sandals (14, 7). But for this study three tribes have been taken for consideration and these are Santals, Oraons and Kurmis. To study vegetation literature 21-23 were used..

III. MATERIALS AND METHODS

Whole day journeys through a vehicle have been included in the study. One fine morning we have started our journey from Midnapore town to Ajodhya to visit nature, natural resources of divine environment of hills and serine picture of villages including ethnicity of them. We accompanied a driver from District Town Midnapore of Paschim Medinipur District who has a little bit idea about the geography of Purulia. We have started our journey on 5th day of October, 2014. We passed Salboni, Chandrakona of Medinipur (West), Bishnupur of Bankura and Bankura Town and moved to left towards Purulia. We have reached at Piurulia at 9:30 am. We have taken a small breakfast at bypass road of Purulia town. After that we have started our journey to Ajodhya Pahar (hill). It is located in the South-west part of Purulia town via Sirkabad. It is a woody hill having a table land above. It is about 2133 ft high from sea level. Numerous small streams drain its water and southern slopes in to the river Subarnarekha and northern slopes in to Kangsawati (Kansai) and followed by Kumari. There are two picturesque falls by the side of the hill tracts. Santals, Oraons and Kurmis are the major inhabitants of the sites considered for study. Santals enjoy their famous festival, ‘Disam Sendre’ every year during Buddha Purnima a festival of Buddhist in India, Japan, Bhutan etc. Every facility is there which includes hotels, lodges, forest bungalows (PWD, Forest) for tourists at the centre. Even, the special case like tea plantation and horticulture have been adopted though not yet been successful till date. We have started our back journay on the same day at 4:30 from Purulia via Dam, Bamni waterfalls, Pakhi pahar,

Balarampur, Purulia, Saheb Bundh etc. On the same route we reached at Midnapore town at 9:45 p.m. by our private car. A lot of plant specimens were collected from field; photographs of vegetation, wildlife, people and culture have been recorded from field for presentation of the same in near future.

IV. RESULTS AND DISCUSSION

Purulia is a district of southwest Bengal in India. It is a part of lower tract of Chotanagpur. The landmass is undulated with varies topography. It harbours plain cultivable land as well as land mass of undulated kind. The highest peak of southwest Bengal is Gorgaburu (2805 ft.) View point, a peak which is situated in Ajodhya hill (average 2220ft.). On this district a few number of works have been done though in India a large number of workers worked (1-16). The district suffers water scarcity though authors from some studies concluded to solve the problems (17-19). The diversity of insets including butterflies is rich. A study revealed that Baghbundi hill represents 54 butterflies under 39 genera and 6 families. This represents that water and vegetation found in this region is quite good so the density and diversity of such insects are diverse (20). Medicinal and useable plants of this region are high and people use large number of plants for different purposes. A good example is Chrysopogon or Andropogon sp. (Fig. 27) which is used to prepare brooms. Medicinal plants used for different purposes are Cryptolepis buchanani (Fig 18), Hemidesmus indicus (Fig. 19), Elephantopus scaber (Fig. 20), Butea frondosa (Fig. 17), Curculigo orchioides (Fig. 22), Acanthospermum hispidum (Fig. 23), Daemia extensa (Fig. 2), Solanum xanthocarpum (Fig. 3), Nymphaea nouchali (Fig. 4, 5), Nelumbo nucifera (Fig. 6), Polygonum hydropiper (Fig. 15), Alysicarpus vaginalis (Fig. 21), Ficus semicordata (Fig. 30), Shorea robusta (Fig. 25), and Thespesia lampas (Fig. 32). Some plants are available in market and used as ready vegetables. These are Colocasia esculents (Fig. 8), Capsicum frutescens (Fig. 12), Cucurbita maxima flower (Fig. 11), Ool (Fig. 12), Bunchy bean or Jhar bean (Fig. 10), Kulekhara (Fig. 7), and Kalmi (Fig. 9).

V. CONCLUSSION

We saw foxes when we passed through Arabari Jungle in Paschim Medinipur that is dominated by dry deciduous sal (Shorea robusta) vegetation. We saw a placard entitles, " Hati Paraparer Rasta" in Bengali that broadcasts its meaning in English,' Elephant Corridor' from a jungle side to another side across the busy metallic road. We passed through many jungles. Similarly we saw many ponds, Jheels and small water bodies along the road towards Purulia. Most of the water bodies showed lily and lotus. Aquatic birds, insects, spiders, dragon flies, bees, fishes are there which make a environment eco-friendly. Good examples of these organisms were water fowls, ducks, domestic ducks, white breasted water hen, bengal Kingfishers, sandpipers, herons, cormorants, egrets, sunbirds, dove, jungle munia, bulbul, drongos, sparrows, Asian pied starling, bank myna (Fig. 13), hill and common myna, storks etc. We have collected and took close snap of plants, animals, landscapes and indigenous people in the roads and at villages. Small fishes were found in the small streams. In the village premises we saw artesian aquifers (Bhurbhuri danda in Bengali or popularly called Sita Kunda; Fig. 16). This is a type of geological layer of porous and permeable materials such as sand and gravel, lime stone or sand stone through which water flows and is stored. In Canada it is found as Artesian well at Pisquid (Prince Edward Island). So, the beauty and charm of the site is not only ethno-botanical, but a special type in which nature and natural resources are there. So, to know more, readers and researchers including students must visit Ajodhya to know more and to record more to protect the virgin land of Purulia District in near future.

VI. RECOMMENDATIONS

1. Details study of Ethnobotany is to be incorporated and seasonal study in villages and weekly markets (hats) may be made through a big project to know the fate of ethnobotany of Ajodhya hills.
2. Diversity study needs ecological parameters which may be designed in such a way that a general and special plan in general to be drawn to make a complete inventory.
3. Sketch, drawing, line drawing, figures and participatory rural appraisal (PRA) map, herbarium specimens, museum specimens, creation of medicinal plant garden may be made to know the selectivity.
4. Target group of villagers and markets may be selected to study on the basis of data questionnaires.
5. Soil, vegetation, wildlife, lively hood, safety, security, use pattern, source and sink of resources may be mapped to solve the burning problems.
6. Block level or Panchayat level monitoring is essential which may be a tagged programme for the rural people of rural villages in Ajodhya.
7. Agriculture, poultry, dairy, horticulture, forestry and lastly tourism sectors may be very active and reluctant to develop community and postpone the monitory problem on the basis of sustainable development.

FIGURES INCLUDED IN ETHNOBOTANY OF AJODHYA, PURULIA, INDIA


Fig. 1 A Pond in Bankura District,


Fig. 2 Daemia extensa


Fig. 3 Solanum xanthocarpum


Fig. 4-5 Water body a habitat for Nymphaea nouchalii, Fig. 6 Nelumbo nucifera (white flower)


Fig. 7. Hygrophila spinosa (Kulekhara), Fig. 8 Colocasia indica (Kochu), Fig. 9 Ipomoea aquatica


Fig. 10 Bean at daily market,


Fig. 11. Flowers of Cucurbita maxima


Fig. 12 Amorphophalus sp.


Fig. 13. Bank Myna , Fig. 14 Khapra shed used for making hut, Fig. 15 Polygonum hydropiper



Fig. 16 Sita kunda, Fig. 17 Palash (*Butea frondos*), and Fig. 18 A climber (Cryptolepis buchanani)



Fig. 19 Hemidesmus indicus, Fig. 20 Elephantopus scaber, Fig. 21 Alysicarpus vaginalis



Fig. 22 Curculigo orchioides, ig. 23 Fig. Acanthospermum hispidum, 24 Wetland for waterfowl



Fig. 25 Making wedge from Sal, Fig. 26 Plough, Basket, Fig. 27 Andropogon for Broom



Fig. 28 Upper Dam, Turga; Fig. 29 Domesticated Jungle fowl, Fig. 30 Ficus semicordata


Fig. 31 Author near Hill at Upper Dam; Fig. 32 Thespesia lampas flowers (Family Malvaceae)

Fig. 33 A panoramic view of lower Dam near Bareria, Baghmundi, Purulia, West Bengal, India

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REFERENCES

[1] Jain, S.K. and Jain, V. 2015. Evolution of Ethnobotany in India during last sixty years: A brief overview, Ethnobotany, 27: 1-7.

[2] Jain, A and jain, S. K. 2016. Indian Ethnobotany: Bibliography of 21st Century (2001-2015), Sci. Publ., Jodhpur, India

[3] Jain, S. K and Kapoor, S. L. 2007. Divine Botany-Universal and useful but under explored traditions, Indian. J. Trad. Knowl., 6(3): 534-539.

[4] Jain, S. . 2005. Dynamism in Ethnobotany, Ethnobotany, 17: 20-23.
[5] Jain, S.K. 2010. Ethnobotany in India: Some thoughts on Future work, Ethnobotany, 22: 1-4
[6] Jain, V and Jain, S. 2016b. Compendium of Indian Folk medicine and ethnobotany, (1991-2015), Deep. Pub., New Delhi.
[7] Basu, R. 2015. Traditional usage of plants for cordage by the tribe in Puruliya district, West Bengal, Ethnobotany, 27: 21-25
[8] Singh, C. B; Pan, T. and Pandit, N. 2015. Ethnobotanical pants used as antidiabetic by Santhals and Paharia tribes of Santhal Parganas, Jharkhand, Ethnobotany, 27: 69-72.
[9] Kumar, S. 2007. NTFP and tribal life in Chotanagpur, Jharkhad, India, pp.253-265, In: Advances in Ethnobotany (ed. Das and Pandey), Dehradun.
[10] Kumar, S. 2014. Ethnobotanical studies in India, Deep Publication, New Delhi.
[11] Singh, H; Nath, M and Jain, S. K. 2015. A Bibliographic Overview on ethnobotanical work in North-east India-II, Ethnobotany, 27: 95-98.
[12] Ekka, M. K, Tiwari, P and Prasad, H. 2016. Traditional use of medicinal plants practiced by the Oran tribe of Jashpur District, CG, India, Research Journal of recent Sciences, 5(ISC-2015): 36-38.
[13] Katirl, A; Barkaoul, M; Msanda, F and Boubaker, H. 2017. Ethnobotanical survey of medicinal plants used fot the treatment of diabetes in the Tizi n' Test Region (Taroudant Province, Morocco), Journal of Pharmacognosy and Natural Products, 3(1): 1-10
[14] Sannigrahi, N. 2014. Traditional Knowledge of medicinal plants & self-help Group: a key to sustainable development, Journal of Medicinal Plant studies, 2(3): 14-24.
[15] Sur, P R, Sen, R and Halder, A C and Bandyopadhyay, S. 1992b. Ethnobotany in Ajodhya hills region of the Purulia district, Wet Bengal, India, J. Econ. Taxon. Bot. (Addl. Ser 1992b;), 10: 333-337.
[16] Raha, S and Mallick, H. 2015. Ethnobotanical usages of Hydrophytes of Purulia District, West Bengal, Journal of Environment and Sociobiology, 12(1): 71-75.
[17] Halder, S and Saha, P. 2015. Identifying the causes of water scarcity in Purulia, West Bengal, India, IOSR-JESTFT, 9(8): 41-51
[18] Biswas, S. 2014. Forests on Ayodhya Hills in Purulia District, Palki, 5th October, 2014. http:/www.calcuttans.com
[19] Bhaya, S and Chakraborty, A. 2016. Application of Geoinformatics in pattern analysis of seditious activity n Purulia District of West Bengal in relation to its geographical & Socioeconomic Background, Int. J. of Sc. & Res.Pub, 6(9): 541-546
[20] Samanta, S; Das, D and Mandal, S. 2017. Butterfly fauna of Baghmundi, Purulia, West Bengal, India: A Preliminary checklist, Journal of Threatened Taxa, 9(5): 10198-10207
[21] Anonymous, 2017. Wikipedia-Town Bagmundi, 4:46pm., 28.05.2017
[22] E-FLORA. 2015. Published on the internet. http://www.eflora.org. (Accessed 01 June, 2015) Missouri Botanical Garden, St. Louis, Mo & Harvard University Herbarium, Cambridge, MA).
[23] Gamble, J. S & C. E. C. Fisher. 1921. Flora of the Presidency of the Madras (Reprint). Vol-II, Bishen Singh Mahendra Pal Singh, Dehra Dun, India, pp. 573-1346.