TO EXAMINE THE SOCIOECONOMIC STATUS OF THE LOCAL COMMUNITIES INHABITED AROUND GREAT INDIAN BUSTARD SANCTUARY AND THE ROLE OF SANCTUARIES IN THEIR LIVELIHOOD.

Amruta Kudkyal, And Suyog Baviskar And Atish Dhende And Neha Chavan

School of Earth Sciences, Solapur University, Solapur

Abstract

People living in these forest fringe villages depend upon forest for a variety of goods and services. These includes collection of edible fruits, flowers, tubers, roots and leaves for food and medicines; firewood for cooking People depend on biodiversity in their daily lives, in ways that are not always apparent or appreciated. Human health ultimately depends upon ecosystem products and services (such as availability of fresh water, food and fuel sources) which are requisite for good human health and productive livelihoods. Biodiversity loss can have significant direct human health impacts if ecosystem services are no longer adequate to meet social needs. Indirectly, changes in ecosystem services affect livelihoods, income, local migration and on occasion, may even cause political conflict. There is growing concern about the health consequences of biodiversity loss and change. Biodiversity changes affect ecosystem functioning and significant disruptions of ecosystems can result in life sustaining ecosystem goods and services. Thus, this increasing degradation of forest is hampering the basic human right to life and livelihood of the local communities, especially the indigenous community whose life is closely linked with the resources and environment amidst which they live. Great Indian Bustard Sanctuary is a wildlife sanctuary for the great Indian bustard (Ardeotis nigriceps) at Solapur, Maharashtra, India.

Keywords: ecological disturbance, resources utilization pattern, Sanctuary.

1. Introduction

Due to the rapid concretisation of the lands and urbanisation, the shelter places of the animals, birds etc. are getting diminished and these creatures are finding it very difficult to survive and some species are becoming extinct. Looking at this grave situation, the local Governments have swung into action and taken steps to declare some of the Wildlife and Bird Sanctuaries all over the country to preserve the rare species of Animals and Birds.

The Great Indian Bustard (Maldhok) is one of such rarest birds of Indian Sub continent. The Bird is found only in some parts of Gujarat, Maharashtra, Rajasthan, Karnataka, Andhra Pradesh, and Madhya Pradesh States. The respective State Governments have declared the sanctuaries for the Great Indian Bustard. The Government of Maharashtra declared Great Indian Bustard Sanctuary in 1979 with the sole objective of conserving the rarest species of Great Indian Bustard which are endangered with extinction. The sanctuary consists of the area of North Solapur, Madha, Mohol and Karmala Talukas of Solapur District covering a total area of 8496.44 sq.kms. This bird has been included in the Schedule-1 of Wildlife Act 1972 and

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accordingly due protection has been given to this bird. The headquarters of the sanctuary are Nannaj of Solapur District

Study Area

- Location North Solapur area of Solapur District
- Name of the Sanctuary The Great Indian Bustard (Maldhok) Sanctuary.
- ➤ Year of establishment- 1979
- ➤ Coordinates 18°21′00″N 75°11′38″E
- Size 849,644 hectares (3,280.49 sq mi)
- Climate Dry, mild winter. Hot summer (40 °C to 43°C)
- ≻ Temperature 13 °C to 42 °C
- ▶ Figure of bustards according to census 2009 Total 21 (13 females and 8 males)
- Major Floral Species Neem, Sissoo, Babul, Bor, Tarwad, Henkal, Dongri, Kusali etc.
- Major Faunal Species The Great Indian Bustard, Blackbuck, Wolf, Indian Fox, etc.



2. Methodology

The present study will conduct by collecting data (Primary rural appraisal technique) on socioeconomic variables, reliance on forest for fuel wood and attitude towards alternative fuel resources. Qualitative and quantitative data will be used for determine socioeconomic variables as primary data collection. Secondary data will be collected from census information for total population and recorded data from forest office, village panchayat and revenue department. The data gathered was analysed using descriptive tool and graphical representation of the data in order to elucidate various patterns. Relationship between various

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aspects of the dependence on the forest such as variability of various alternatives to forest recourses, attitude towards accepting alternative resources, landholding and income source will be exploring.

3. Result and Discussion

Data collected in household survey assessed with various social and economic parameters. The data collected during household surveys used to calculate the mean family size and male & female population in the villages. The family size varies mainly with the occupational groups, caste groups and economic status of the villages.

Occupational pattern:-

Agriculture is the main occupation of the people in the villages.the villagers have occupied other income generating activities like livestock rearing, transport and small business along with agriculture, as a result the percentage of the people involved directly in agriculture was low. Labour works like working in other people's field, work in other's business, work in construction of other's house and so on. In the sampled village at nannaj, the overall percentage of the <u>labour working</u> population is <u>56%</u>, and by own <u>business</u> are occupation percentage of the people is <u>16%</u>, and by own <u>agriculture</u> works on their field is <u>26%</u> at village. A very little proportion of the people had regular government and private jobs both in the sanctuaries. Few percentage of the people who had jobs in regular government and private jobs are also engaged with agriculture, business and labour work.

Details of landholding pattern:-

All the families in the villages at nannaj had agriculture land, while the highest owned land is recorded by <u>land acquired is 76%</u> and there is <u>low land is 22%</u> can't live on their own land, they live by rent houses. Most of the agricultural land was irrigated. The highest proportion of landless families by <u>agriculture</u> <u>acquired</u> is highest in low land percent is <u>70%</u>. To grow up the crops are jowar, maize, wheat, sugarcane and harbara's are the important crops in the nannaj village, while husk and straw were regarded as a high quality fodder for the cattle. This offers the benefits in term of saving manpower and supply important nutrients to the field. Usually the byproducts of all the crops were either used as fodder or fuel. Most of the families in the sampled villages which had large landholding supply the food grains to the nearby market and generate income for their livelihood.

Expenditure pattern:-

The highest percentage of the income contributed by the agriculture sector in the village. In the villages although a significant proportion of the population was employed in agriculture yet the proportionate income from agriculture was low respectively.

Food:-

An analysis of the annual expenditure pattern of the sample villages revealed that in the sanctuaries, the highest percent expenditure (26% and 66%) was on food. Because the food expenditure of <u>66% are low rate</u> of food pattern on that village, and <u>the high rate of 26%</u> on food expenditure can follow on food pattern on that village.

Clothing:-

An analysis of the expenditure pattern of the sample village revealed that in the highest percent expenditure (58% and 22%) was on clothes, because the <u>high rate</u> on percent is <u>58%</u> can increase the population on clothes. And <u>22% not having income</u> source for their position of working.

Schooling:-

The expenditure pattern of the sample village revealed that in the village of the nannaj can educate the children's, the highest percent expenditure (46% and 44%) was on school because the <u>high rate</u> of school

expenditure percent is <u>46%</u> children's are going to school of that village and <u>low rate</u> of percent is <u>44%</u> are not their children's in their houses of village. And other schools are taken by freeship for the children's by the admission of the school to educate the children's more.

Travel:-

The village of the nannaj can supply the food grains and other goods item in the sanctuaries, the highest percent expenditure is (58% and 40%) was on traveling. Because of the <u>high rate</u> of expenditure percent is <u>58%</u> can travel to other cities for supplying the food grains to the nearby market and their expenditure are increase on high rate. The <u>low rate</u> percent is <u>40%</u> cannot go for traveling because they don't have sufficient to travel by expenditure to other villages or city.

Medical:-

An analysis of the expenditure pattern of the sample village revealed that in the highest percent expenditure (58% and 20%) was on medical. Because the <u>high rate</u> of expenditure percent is <u>58%</u> can cost for the medicine to maintain suffering for disease of the health care. And the <u>low rate</u> of percent is <u>20%</u> cannot suffer by disease or wellness, they maintain their health care.

Religious ceremony:-

An analysis of the expenditure pattern of the sample village revealed that in the highest percent expenditure (78% and 16%) was on religious. Because <u>the highest rate is 78%</u> can expenditure for religious ceremony to celebrate the religion in that village and to enjoy the religion with the family of happiness. And the <u>low rate is 16%</u> they don't have income source for religious to the expenditure by some domestic reason.

Social function:-

An analysis of the expenditure pattern of the sample village revealed that in the sanctuaries the highest percent expenditure (40% and 44%) was on social function. Because the <u>high rate</u> to expenditure is <u>40%</u> can have income source for social function by their ceremony of occasional source of their village. And the <u>low</u> <u>rate</u> to expenditure is <u>44%</u> can don't have source or they don't have a sufficient income source for their social function. The high proportion of total income was spent on miscellaneous expenditure included the amount spent on travelling, social and religious function ceremonies.

4. Conclusion

Data collected in household survey assessed with various social and economic parameters. The data collected during household surveys used to calculate the mean family size and male & female population in the villages. The family size varies mainly with the occupational groups, caste groups and economic status of the villages. Agriculture is the main occupation of the people in the villages. the villagers have occupied other income generating activities like livestock rearing, transport and small business along with agriculture, as a result the percentage of the people involved directly in agriculture was low. The highest percentage of the income contributed by the agriculture sector in the village. The village of the nannaj can supply the food grains and other goods item in the sanctuaries. The relationship between local communities with The Great Indian Bustard will improve and the conflict between forest recourses, attitude towards accepting alternative resources will become developed, with respect to resources utilization pattern that can generate the better live hood options for the local communities. The result of this study will be very helpful in mitigating pressure on forest by providing alternatives to the forest recourses and by economic upliftment of the local communities. A possible way to reduce biotic pressure of the Sanctuary requires conservation education through training programmes, capacity building and outreach with respect to sustainable harvesting of natural resources. To reduce the pressure of the local people on the forests for their daily fuel wood, fodder and leaf-litter biomass needs plantation of suitable species preferred by local people on wastelands, agro

forestry setups and land outside forest boundary set-ups are recommended. Initiatives can also be taken to employ local people into forest protection related jobs as they are more aware with ground realities.

5. References

- 1. Atrayee Banerjee and Chowdhury Madhurima Forest degradation and livelihood of local communities in India: A human rights approach ISSN 2006-9782 ©2013 Academic Journals
- Dr Stanley M. Makindi Local communities, biodiversity conservation and ecotourism: a case study of the Kimana Community Wildlife Sanctuary, Kenya African Journal of Hospitality, Tourism and Leisure SPECIAL EDITION Vol. 5 (3) - (2016) ISSN: 2223-814X
- Dutta, S. Rahmani, A.R. and Jhala ,Y.V. (2010). Running out of time? The Great Indian Bustard Ardeotis nigriceps - Status, viability and conservation strategies. Eur J Wildl Res (2011) 57: 615. doi:10.1007/s10344-010-0472-z
- Hussein M, (2016). Conserving the Prince of the Grasslands, Ela Journal of Forestry and Wildlife 5(2):173-174, ISSN 2319-4361.
- Nautiyal, S. 1998. Ecosystem function of buffer zone villages of Nanda Devi Biosphere reserve India. Ph.D. Thesis. H.N.B. Garhwal University Shrinagar. 232pp.
- Nautiyal, S., Maikhuri, R.K., Rao, K.S., Semwal, R.L. 1998. Conservation through cultivation: A case study of medicinal plants in buffer zone villages of NDBR. In: Research for mountain Development in India. Ajanta Publication, Nainital, pp.129-135.
- 7. Omondi, P. Wildlife–Human Conflicts in Kenya: Integrating Wildlife Conservation with Human Needs in the Masai Mara Region. PhD Thesis, Mc Gill University: Montreal, Canada; 1995, pp. 150–262.
- 8. Rahmani, A.R. 1989. The Great Indian Bustard. Final report in the study of ecology of certain endangered species of wildlife and their habitats. Bombay Natural History Society, Mumbai.
- 9. Rao, K.S., Nautiyal, S., Maikhuri, R.K., Saxena, K.G. 2002. Management conflict in Nanda Devi Biosphere reserve India. Mountain Research and Development. 20(4): 320-323.
- 10.Rao, K.S., Nautiyal, S., Maikhuri, R.K., Saxena, K.G. 2003. Local peoples' knowledge, aptitude and perceptions of planning and management issues in Nanda Devi Biosphere Reserve, India. Environmental Management, 31(2): 168-181.
- 11.S. Misra, R.K.Maikhuri and U.M. Chandrashekara Assessment of anthropogenic pressure, traditional rights and natural resource management issues: a case study of Kedarnath Wildlife Sanctuary, India
- 12.S. Misra1, R.K.Maikhuri 1 and U.M. Chandrashekara Assessment of anthropogenic pressure, traditional rights and natural resource management issues: a case study of Kedarnath Wildlife Sanctuary, India
- 13.Satyanarayana Behara, Preetika Bhanderi, A Socio-Ecological Assessment Aiming at Improved Forest Resource Management and Sustainable Ecotourism AMBIO A Journal of the Human Environment · February 2012 DOI: 10.1007/s13280-012-0248-7.