

Conservation of Forest and community rights: a study of people's Livelihood Rights in the Periphery of Kaziranga National Park, Assam, India

Biplob Gogoi¹ and Dilip Gogoi²

¹*Department of Political Science, Debraj Roy College, Golaghat 785 621, Assam, India*

²*Department of Political Science, Cotton University, Guwahati 781 001, Assam, India*

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ABSTRACT

Kaziranga National Park, the world heritage site of Assam, presents its own unilinear thread of success in the Indian forest conservation history. Known as the only abode of the Asiatic one horned Rhinoceros and a few other endangered fauna, the national park seems to be at the receiving end of a state driven pursuit of modern scientific conservation that demarcates hitherto non-existing boundaries between the park and the people in its periphery. Here the paper tries to find out the colonial roots of forest conservation in India in general and the state of Assam in particular, to establish a linkage between implementation of forest acts and administrative policies in Independent India and the diminishing status of community forest rights in the fringe villages of the national park of Kaziranga (KNP). The paper examines various aspects of infringement of livelihood rights in 20 sampled villages undertaken for the study in and around 5 protected areas of the park and tries to offer possible solutions with an inclusive approach aimed at safeguarding both livelihood rights and natural resource management in the park's periphery.

Key words: Kaziranga, Conservation, Forest acts, Policies, Livelihood, Resource management

Introduction

The linkages between communities and forests are as old as human civilization itself. In the pre modern societies, communities had learnt to live within the limits of their local environment and their cultural and spiritual identities came to be shaped by their close association with nature. Thus, community rights over forest resources originated from the interface between culture and nature itself. Community rights lied at the roots of the preservation of ecosystems in the forest areas because of which society introduced many cultural controls; in the Indian context, a there could be observed a symbiotic manifesta-

tion of examples such as self-imposed limitations on forest clearance, restriction on hunting or taboos on harvesting certain species, protection of sacred groves for religious reasons, linear ownership of nature zones and use of appropriate local technology helpful in maintenance of biodiversity.

Community rights vests the natural right to use, manage and conserve forest resources in the sense these forest dwelling communities have used forest lands for cultivation and residence since pre-modern era in sync with an indigenous knowledge system and cultural behavior of preserving the complex ecosystems handed down through generations. In protected areas of the national park of Kaziranga

(¹Associate Prof., ²Associate Prof.)

(KNP), forest resources have for long supported the livelihood of different ethno-religious communities which contextualize the need for linking realization of forest rights and conservation of forests in such areas. We took it as relevant to interrogate the status of people's livelihood rights vis a vis the park's nature conservation policy to address the emerging disputes of legitimacies that oppose each other in multiple dimensions: territory, identity, practices, representations and perceptions of heritage resources. For the purpose, we focused upon the following aims:

- To determine the ethnic, religious and socio-economic profile of the human population in the periphery of KNP, particularly in its Addition Areas.
- To investigate how far and to what extent the state driven efforts of scientific conservation have affected the status of livelihood rights in the immediate vicinity of KNP.
- To evolve and propose suggestions for evolving a sustainable model of scientific conservation without aggravating the hiatus between the park and the people.

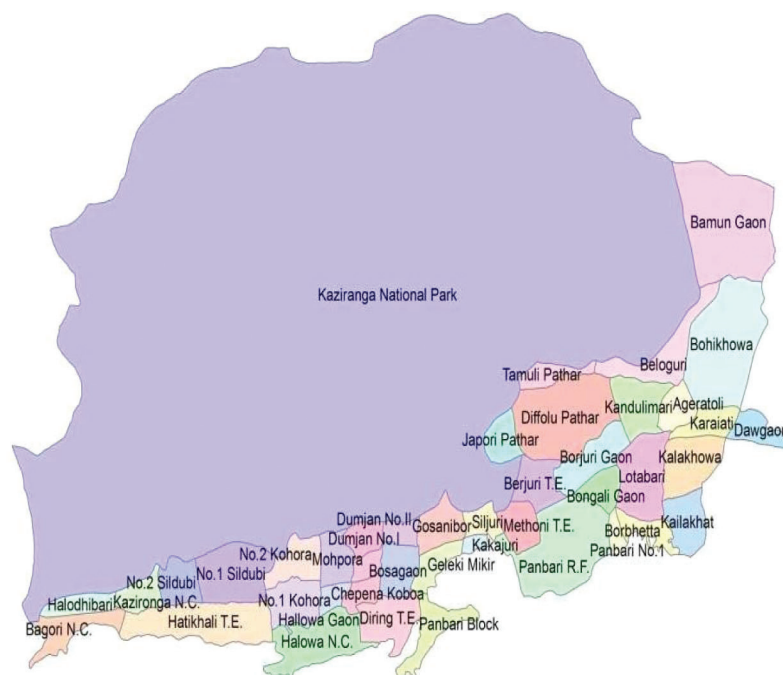
Study area: Periphery of Kaziranga

Kaziranga National Park, in the state of Assam, is one of the few protected areas of India. Inhabited by the world's largest population of one-horned rhinoceroses, the Kaziranga National Park is also termed by the UNESCO World Heritage list as "an example of a still virgin flood plain and grass eco-system" (Maan and Chaudhry 2019). The park was essentially a

game reserve during the British era which was converted into a wildlife sanctuary in 1950; it became national park in 1974 after which it under went six extensions between the period 1977 and 1999 doubling its original surface area from 434 to 884 square kilometer in a span of two decades (Strategic Report, Govt of Assam, 2019) ; it was subsequently recognized as an important area of Bird conservation by the international NGO Birdlife International and declared a Tiger Reserve under Indian national Tiger project undertaken since 2007. In a span of seven decades since its inception, Kaziranga has been subjected to the expansionary policy of nature conservation with numerous governmental attempts at re qualifying the space for the National Park and subsequent appropriation of lands as protected areas for the same. Each of these extensions or subdivisions comes with new classifications –core area, buffer area and animal corridor. These protected areas have drawn new boundaries, each of which redefines the rights and duties of the people inhabiting fringe village areas along the national park, falling in three districts namely Golaghat, Nagaon and Sonitpur and bordering KarbiAnglong district in the middle part of Assam. The selected sites for the study comprise a sample of 20 villages along the four major subdivision areas or clusters of the national park of Kaziranga, viz. Agaratoli, Kohora, Bagori and Burhapahar consisting of a local population including both indigenous and migrants who are directly or indirectly affected by the forest conservation activities of the government in the area.



Fig. 1. KNP Maps showing fringe villages, adapted from the Strategy Report: Kaziranga; Landscaping through Community Participation 2019, Transformation and Development Department, Govt. of Assam;



Materials and Methods

The target groups belong to a large geographically dispersed population; the researchers therefore made use of multistage cluster sampling, which is a probability sampling method. Database on revenue villages for 2009–2010 were obtained and villages in the immediate fringe areas of the Addition Areas (AA) along 4 major subdivisions of the Kaziranga falling in the Golaghat, Nagaon and Gohpur Districts were identified: Out of the total of 59 villages found, a total of 20 villages with a total households of 5353 were selected for study in the area; first, a sample of 4 villages in each Addition Area (AA) were selected i.e., 2 villages within 0-2 km of the protected Addition Areas and 2 villages (2-6 km) bordering the fringe area of the protected areas; then, a sample of 10 percent of total households in each selected village were selected by means of simple random sampling to collect data along with the statistical tools to be used and number of variables to be examined. Upon selection, a total of 534 sampled households were categorized on the basis of household size (small family or large family), community (Upper Caste, Backward Classes, SC, ST, Religious Minorities), occupation, land-holding status, settlement status (local or immigrant), ethnicity (tribal or non-tribal) and population density of the village in which they lived (low or high). Structured ques-

tionnaire was distributed consisting of questions on socio-demographic variables, including family size, major occupation, landholdings, livestock holdings, conservation in their livelihoods. They were asked on prohibitions on access to resources of the park in regard of fuel wood, fodder, livestock grazing, timber use as the main ingredients of resources farm income and family income. The respondents were also asked questions regarding their access to resources of protected areas and their livelihood problems, awareness and views on effects of conservation in their livelihoods. They were asked on prohibitions on access to resources of the park in regard of fuel wood, fodder, livestock grazing, timber use as the main ingredients of resources.

Results

As indicated in figure 1, a total of 534 households were sampled; the average household size levitates around 6 family members across all ethno-religious groups and communities.

It could be observed from Table 1 that, more than 60 percent of the households in the survey have agriculture, poultry and dairy activities as their primary occupation and more than 70 percent possess land holding up to 1 acre only. Around 89 percent of the sampled households enjoy homogeneity in terms of household incomes primarily due to their proximity

to the national park.

The cohabitation of the national park and these fringe people is paramount as they are primarily dependent upon the national park for acquiring forest resources as inputs in agriculture or as feedstock for livestock (Borah et al., 2018). These bases of livelihood are more traditional than commercial and particularly, livestock rearing is integrated with cultural identity and socio-economic existence of the people. Agriculture, cattle breeding and fishing and activities also take place along the sand bar islands i.e., termed 'saponi' in local language which are occupied by the riverside population consisting of scheduled tribes and other religious minorities. The landless, mostly migrants make vehement claims over these sand bar islands as more and more of these lands

continue to be grabbed by the park authority to create space for the increasing population of elephants, rhinoceroses and tigers.

The conservation process has led to greater annexation of grasslands by the KNP authorities with time. As such, people in the vicinity are facing a shortage of grazing grasslands and scarcity of fodder for their livestock. Loss of livelihood due to non-availability of Grazing land for Livestock population is one of the major problem areas: Sixth addition of Kaziranga National Park has led to loss of traditional grazing fields inside Panpur Reserve and Char areas. The struggling inhabitants, mostly Biharis and Nepalis assert their rights as herders on these fields which they do not own but on which they have been paying pasture taxes since the 1920s

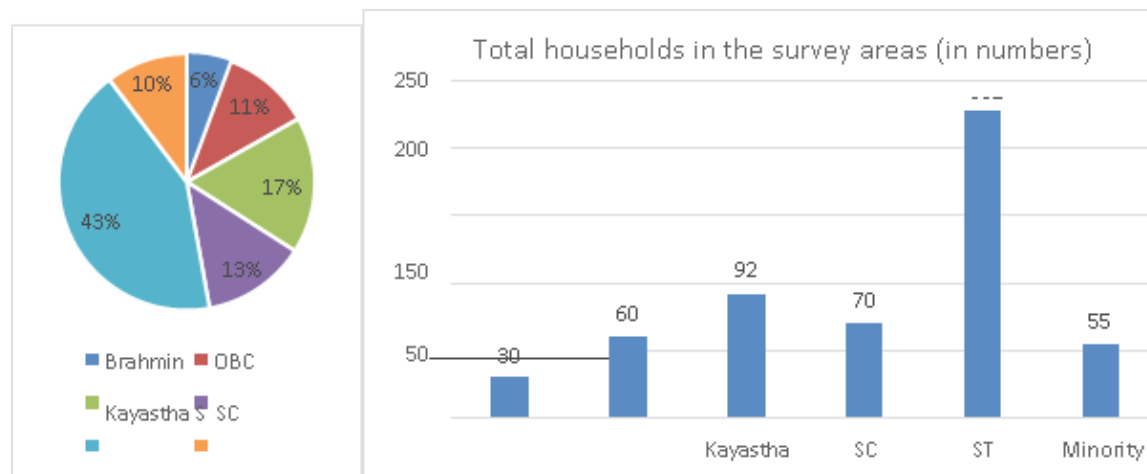


Fig. 1. Socio-Religious Profile of the households in the 20 fringe villages across the 5 nos. of micro sites or Addition Areas (AA) sampled for the study (source: field survey)

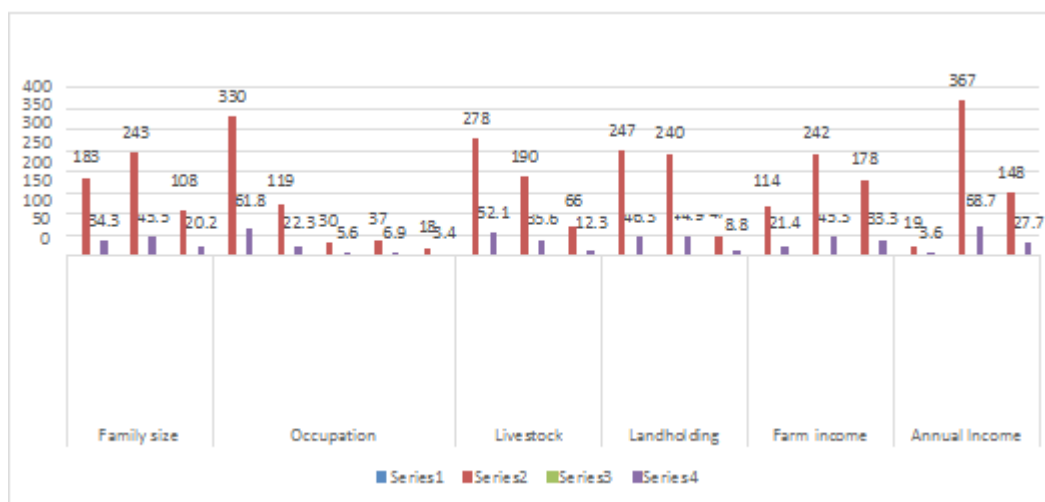


Fig. 2. Total households in numbers and percentage across the 5 micro sites sampled for the study

(Joelle Smadja, 2018).

Among the major forest resource uses among the villagers, fuel wood constitutes the primary component with timber and bamboo being used as commercially viable produce for small time engagement in the local markets. Fuel wood harvest is prohibited in the protected areas and natives enjoy access to them only in the transition zone or the Karbi Hills in the vicinity. Access to forest resources for firewood gathering is evidently crucial for the villagers and the sustained reliance of the communities on subsistence forest resources and produce obviously consti-

tutes the ground for conflict between government's efforts of conservation and age-old natural community rights.

Further, the Table 1 suggests that fishing is a major source of income for many households in the villages, particularly in the 6th addition areas. An abundance of fish harvests was observed among the villagers with minimal spatial variations in the floodplains of the Brahmaputra, and its tributary rivers which resembled a similar finding by Shrivastava and Heinen in 2007. Loss of Livelihood due to extinguishing of fishing rights inside sixth addition of

Table 1. Differences of Socio-Religious and Economic Variables among the 20 villages across the 5nos. of micro sites (AA) sampled for the study (source: field survey)

Independent Variables	AA1 (No. of Households) 157	AA2 (No. of Households) 103	AA3 (No. of Households) 105	AA4 (No. of Households) 102	AA6 (No. of Households) 67
1 Family Size					
• small(4or less)	42	36	49	31	25
• medium(4-6)	63	56	41	59	24
• large(more than 6)	52	11	15	12	18
2 Major Occupation	93	65	76	63	33
• Agriculture & Animal Husbandry	29	23	21	31	15
• Wage earner	20	—	—	—	—
• Fishermen	10	11	07	07	02
• Business	5	2	01	01	09
• Service					
3 Livestock holdings					
(a)low(0-2)	78	66	67	45	22
(b) medium(3-4)	65	21	26	49	29
(c) high(more than 4)	14	16	12	08	16
4 Land holdings (in acres)					
(a) small (0-1)	68	51	53	43	32
(b)medium(1-5)	75	41	46	53	25
(c) Large (5 +)	14	11	06	06	10
5 Farm Income					
• small(less than Indian Rs.2000)	15	22	35	32	10
• moderate(2000-10000)(c) large (10000+)	64	60	46	39	33
• moderate(2000-10000)(c) large (10000+)	78	21	24	31	24
6 Annual family income					
• low (below Indian Rs.12000)	9	4	2	4	—
• medium(Rs.12000-1 lac)	95	66	81	79	46
• high (Rs.1 lac. plus)	53	33	22	19	21

Kaziranga National Park is another problem area. Those villagers who were traditional fishermen have lost their livelihood. Extinction of fishing rights was aimed at minimizing anthropogenic influence on the vulnerable ecosystem already affected by climate change. However, the scope of collection of water in natural ponds and water bodies, termed 'beel' in local language, for fishery projects are still limited.

The present status of livelihood rights is compounded by the poor implementation of the Forest Rights Act 2006. Apathy of the state government towards implementation of this is largely manifested in the attitude of the senior officials and the elected representatives to understand the historical importance of the Act and its origin. The real implementation of the Act is poor and misdirected which lies in the hands of an understaffed social welfare department. The lack of understanding of community forest rights provisions is strongly visible even amongst the upper echelons of the forest bureaucracy as usual handling of the Act implementation more or less remains in the line of any normal activity of state bureaucracy.

Discussion

There is an urgent need to avoid adhocism and bureaucratization in regard of conversion of forest villages and such settlements into Revenue Villages. Grassroot activists and civil society organization working for a long time in forest rights arena need to be integrated into the Act implementation process is critical to the success of the implementation. These groups need to be brought into the process at all levels as advisors and watchdogs.

Local variability will need to be factored out in regard of ethnicity, demography, livestock holdings, land holdings, land tenure, and immigration towards developing conservation and development proposals for fringe villages falling in the protected areas.

Governments need to adopt approaches which are conducive to the achievement of sustainable livelihoods for the people in the peripheral villages of Kaziranga and those are based on proactive policy initiatives for eco-tourism activities. Other measures may include exposure to innovative entrepreneurial activities through latest technological and institutional inputs; bringing bio-resources back in through resurrection of traditional knowledge system and community culture and service sectors evolving out

of the suggested measures and recommendations (Bandopadhyay and Dutta, 2019).

Large centralized institutions like the forest departments may seem efficacious in bringing about change in land or resource use over relatively short time horizons, but empowerment of local institutions such as Gram Sabhas or Panchayats is the key to ensure sustainable change and participation of fringe dwellers over long time horizons. The concerns of existing migrants need to be addressed to in the process so that after effects of marginalization does not lead to the severe retaliatory exploitation of natural resources and escalated conflict over land (Narayan Sharma *et al.*, 2012).

Conclusion

The conservation history in India, like in other parts of the world, so far, effectively ensured exclusion of people in decision-making processes, particularly those concerning access to natural resources throughout three broad power regimes i.e., jurisdiction of the royalty, colonial rulers, and the control of the state following Independence. This exclusionist policy brought in by the governments remained unchanged through the ages which led to increasing hiatus between forests and the people with collateral consequences for ecology, because "the survival and quality of forests in most developing countries depend on the strength of community forest organizations formed by the people traditionally involved in forest use" (Ascher 1995)

The way forward for a successful conservation strategy in the Kaziranga national park would involve the inculcation of a landscape based inclusive approach and revisiting the state-owned space of kaziranga to accommodate local customary practices of nature conservation in the area. The key ingredients of such a strategy shall include an open and exible network structure; building upon that network to mobilize masses at the grassroots; the ability to leverage local expertise and scientific research; and harnessing institutional capacity to generate credible frames of justice for rights of the marginalized communities in the fringe areas. It would be worthwhile to see as to how the government brings back the historical socio-cultural relationship with nature and constitutes ideal mechanisms for safeguarding livelihood rights and resource management in the protected areas of the periphery.

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Sampled revenue villages along with total households in the fringe areas of 5 protected areas of Kaziranga, i.e. 1st, 2nd, 3rd, 4th and 6th. Addition areas: Hatikhali TE (877), Kaziranga NC(29), Halodhibari (84), No.1 Sildubi (594); Kakojuri (142), Methoni TE (391), Panbari NC (379), Mohpora (104); Bongali Gaon (314), Borjuri Gaon (306) Koilakhata (241) Borbhetta (191); Geleki Mikir (361), Bosagaon (321), Panbari Block (25), Halowa NC(310); Agoratoli (32) Bohikhowa (505), Tamulipathar (99) Bamungaon (48). The 5th Addition Area was found to be insignificant in sample size for the study and hence was not taken up for the purpose.

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