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« Wild life conservation and tribal livelihood in the Brahmaputra flood plain - the Case of the Mising tribe in the fringe villages of the Kaziranga National Park (Assam, North-East India) »

Every year, during the monsoon season, millions of people are affected by floods in India. In Northeast India, the Brahmaputra River regularly submerges the lowest lands of the State of Assam, where different communities depend on the natural resources of the flood plains for their livelihood. Even if they are frequently disrupted by natural hazards, different adjustment mechanisms have been established through centuries between the riverside dwellers and geophysical constraints.

Originally, living in the Himalayan State of Arunachal Pradesh, the Mising tribeⁱ has been migrating out to the Brahmaputra flood plains of Assam since the 13th century, most probably in search of fertile land (Lego 2005: 10, Mipun 1993: 36). They have defined their territory during a long process of migration and adaptation to successively new environmental constraints.ⁱⁱ Consequently, they have integrated with the diversity of socio-ethnic groups such as the Ahoms, the Nepalis, the Bangladeshis, the ex-tea tribes and others, who are gathered in the plain. Currently, Mising villages are mainly settled in upper Assam along a narrow strip of wetland situated between the Himalayan foothills and the river, on the north bank of the Brahmaputra, as well as on the opposite south bank. During their migration, some tribal clans crossed the large braided river to reach the territory of the Bokakhat Subdivision of the Golaghat district where Kaziranga National Park (KNP), classified as a UNESCO World Heritage reserveⁱⁱⁱ, is situated today.

Because they have been living for so long in the river floodplain, the members of the Mising Tribe have accumulated extensive knowledge of the abundant biodiversity and the various ecosystems present within the Brahmaputra wetlands. In order to overcome the ecological constraints of the river hydrosystem (i.e., floods and erosion), the tribal society has

developed adaptive strategies such as seasonal or permanent migration, the development of diversified agricultural system provided by land-cover mosaics and seasonal potential of climate, as well as the use of construction techniques adjusted to periodic flooding.

Since the 1950 earthquake the Brahmaputra river bed has become larger causing flooding and erosion and riverside agricultural land to decrease^{iv} (Sarma 2005). A strip of five kilometres of riverside land has been eroded in the Bokakhat area since this major event happened.^v These eroded lands were inhabited and cultivated by the Mising community. The families have accordingly shifted their villages further inland (Map 1). Meanwhile, in 1974, the Mising villages within the KNP were evicted by the forest department and have settled on the fringe of the protected area. The villagers became more vulnerable with the growth of population density on a reduced territory. They still have to adjust to new social pressures and biophysical constraints that raise unprecedented environmental concerns on their territory.

In this paper we will emphasize the importance of ecological knowledge in the appropriation of the natural resources and the impact of the National Park management on the disruption of a social and ecological system within the Mising tribe's territory and its consequences.

A Social-ecological system rooted in local ecological knowledge: Mising agricultural land use in Bokakhat

As Philippe Descola has demonstrated, the dualism between nature and culture is a social construction of modern western philosophy (Descola 2005, Latour 1997). The approach proposed by Friket Berkes *et al* (2000) concerning social-ecological systems makes it possible to explore environmental problems as a direct interaction or interplay between nature and society. This approach emphasizes that humans must be seen as a part of, not apart from, nature. Knowledge of natural resources, ecosystem dynamics and associated management practices exists among communities which, on a daily basis and over long periods of time, interact for their benefit and livelihood with ecosystems.

Development of a social-ecological system based on the Ecological Knowledge of the Brahmaputra flood plain

Over time, the territory of the Mising tribe has been repeatedly redefined by the floodplains instability, causing sporadic resettlement of its different groups. These groups choose to migrate to the Brahmaputra wetland plains, whose ecosystems provide abundant and diversified natural resources. Some of them have settled in the area of the present Kaziranga National Park in the Bokakhat subdivision.

In the area of the KNP, the Mising tribe has inherited local knowledge concerning the ecological functions of the plains and its biodiversity. This functional knowledge of the local environment encompasses a glossary of terms designed to describe, classify and interpret natural objects. It explains how each ecosystem component operates (Levy-Strauss 1962: 11-49, Métaillé and Roussel 1998).

The Brahmaputra is a braided river in a constant state of change, roaming across unrestricted floodplains, creating and destroying side channels, sand bars, backwaters, oxbow lakes, swamps and a variety of other ecosystems. As they are connected to natural drainage systems, the wetland depressions, called *beel* in Assamese, contain a large diversity of fish species. The Mising fishermen fish in those *beels*, using various tools or instruments to catch fish depending on the water level and ecosystem characteristics.

Before the massive deforestation that took place under British rule during the 19th century, the practice of slash-and-burn cultivation (*jhum*) was used in the plains in the way the Adi tribe practices it today in the hills (see Mipun 1993: 22, Smadja 2009). They cultivated rain-fed rice called *ahu* (in Assamese) from February to June. The lowest lands were used for widespread cultivation, mainly for the floating *baou* rice from June to November. The more elevated lands covered by forests made it possible for them to collect fruits, leaves, medicinal plants and wood for different domestic uses. The villagers would abandon a given plot when the river changed its course or when the soil fertility declined and moved on to more fertile lands. Until the 1950s, migratory habits associated with an itinerant form of agriculture represented an adaptive strategy to the hazards of a complex and inherently unstable floodplain's ecosystem. The Misings consider, even now, that the performance of rituals supports the good management of the territory and brings good harvests. So rituals are performed before the sowing of *ahu* rice, during the *ali aye ligang*^{vi} festival, and after harvesting. Similarly, the *Bihu* festival is celebrated all over Assam.

The usual Mising village settles temporarily on and along natural alluvial embankments above wetland depressions, surrounded by forests covering the levees. From their history as hill dwellers, they have preserved some technical knowledge such as house architecture. The platform houses built on piles, called *chang ghar* in Assamese, stand in the centre of the communitarian territory and of the family homestead (Fig.1).



Fig. 1: A Mising Chang ghar (traditional house) in the new relocated village called Borbeel Mising gaon, situated near the Kaziranga National Park. Photo: Emilie Crémin, February 2007.

Riverside ecosystems are quite different from mountain environments. However, bamboo houses are functional in the wetland, as the high platform above the ground protects the people from wild animals and annual floods. Building materials, collected directly from the natural resources surrounding the villages, are partly different from those of the hills but bamboo remains a major resource.

Ecological knowledge and local ways of life are dynamic and have been transformed over time. Ever since they have settled in the Brahmaputra floodplain, they have adopted new

natural resource exploitation techniques from interactions with Ahoms and other Assamese communities. These interactions have generated an innovative blend of techniques that gives them the capacity to manage and appropriate wetland ecosystems efficiently (Fig.2).

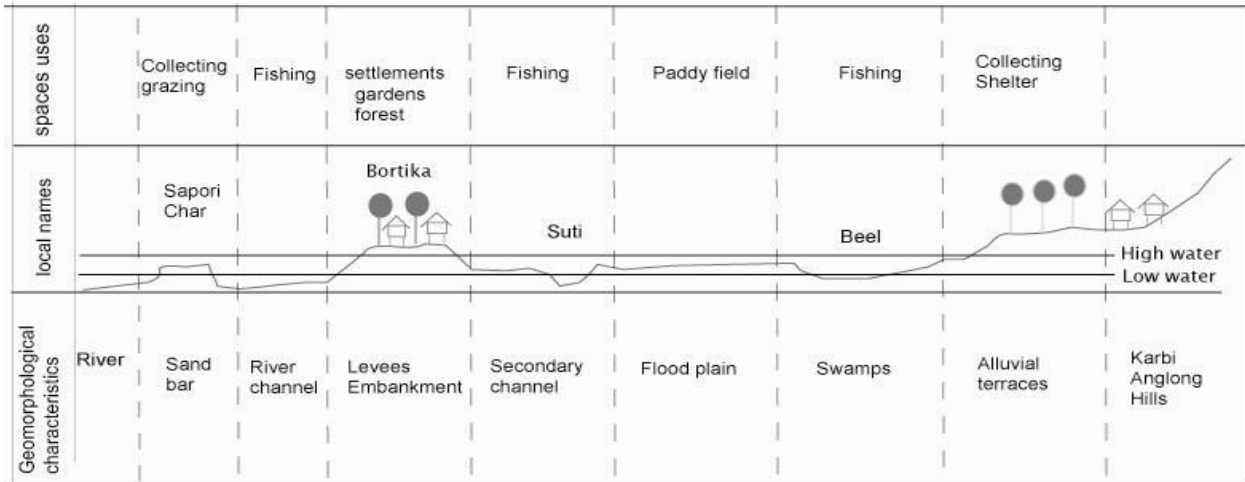


Fig. 2: Transect of the agro-ecological zones in the Brahmaputra floodplains. The traditional ecological knowledge permits the villagers to take the benefits from the mosaic of ecosystems using the low land to cultivate paddy, grassland for cattle and forests to collect products for daily needs. Emilie Crémin 2007.

Throughout history, humanity has shaped nature and nature has shaped the development of human society (Burel 2000). With the use of the natural resources, the Misings are reshaping their territorial landscape by transforming the riverside ecosystem. Evidence of such transformation can be seen through the agricultural activities (Deffontaines 1998). Thus, landscape is the spatial manifestation of the relations between humans and their environment.

Current seasonal organisation of land use

Land use is the management of natural resources by humans, which can lead to modification of ecosystems into agroecosystems such as fields, pastures, and settlements or the conservation of the so-called “wilderness” into protected areas. In Assam, the diverse ecosystems of the floodplains have been altered mainly by the massive deforestation of the colonial period and by the construction of artificial levees (or embankments) built to protect the land from flood. The agricultural practices had to be adjusted to this new land use planning inducing environmental changes. Since this period, in the low-lying wetlands, monsoon paddy cultivation alternates with wheat and mustard cultivation during the dry season. The *hali* rice^{vii} is cultivated

in the low land from June to December but this crop is risky as it is vulnerable to the hazards of floods. Since 1980s, new varieties of high-yielding rice associated with irrigation and cultivated between September and June are added. The uncultivated common lands, including alluvial forests and grasslands, mostly covering sand bars in the river bed called *char* or *sapori* in Assamese, are spaces used as grazing land where villagers can also collect small wood, grasses for roof thatching and fodder.

Whilst improving the plains ecosystem, the Misings have developed a polyculture^{viii} that permits self-sufficiency (Kutum 2005). The practice of subsistence farming on reduced areas of land with limited inputs produces enough food to meet the basic needs of a family. As the forest areas are no longer available for collection of resources specific to these ecosystems, homestead gardens have now become important substitutes for the *in situ* conservation of a wide range of unique genetic resources of food and agriculture (Subedi *et al.* 2004, Ramakrishnan 2008: 40). In their home gardens, the villagers have domesticated a wide variety of wild plants found in the wetland and forest ecosystems (Shrivastava 2005, Boissya 1997). Conservation of these plants permits the survival of many species that would otherwise disappear because of deforestation (see Haudricourt 1987). A high level of man-made agrobiodiversity^{ix} is thus concentrated around the houses in the form of medicinal plants, vegetables, ornamental flowers, construction materials, etc. Kitchen gardens are typically cultivated with a mixture of annual and perennial plants that can be harvested on a daily or seasonal basis. They provide a safety net for households when other types of food are scarce.

Thus, their ecological knowledge permits optimal land management of a small territory in a relative balance with the riverside ecosystems characteristics. Although farm activities have been shaping the community's territory and the landscape of Bokakhat for many centuries, the organisation of the territory is currently disrupted by increased biophysical constraints and administrative regulations.

Defining the territory of KNP's fringe villages

Administrative and land tenure constraints

During the history of the Upper-Assam, dominated by the Chutia and the Kachari Kingdoms from the 11th to the 16th century, annexed by the Ahom Kingdom between the 16th and 19th centuries, then administered by the British Empire from 1838 until India's independence in 1947, the territorial regulations and land tenure have been successively modified (Gaits 2006; Karna 2004; Jacquesson 1999). These regulations have defined the status and the shape of the territory all over Assam (Shrivastava, 2005).

Currently, there are 27 registered villages (revenue villages) inhabited by a majority Misings in the Bokakhat subdivision land use plan of 1958 (Crémin 2007). This process of administrative integration has restricted the communities' migratory habit and has imposed their permanent settlement in the territorial limits defined by the land tenure within the Bokakhat subdivision. In their own spatial representations, the territorial boundaries have been traditionally mobile, their spatial organisation changing from one season to the next, adjusting to the natural hazards. This mobility of the territorial boundaries is, however, not recognised in the government's land use plan. The last few generations of this community are being sedentary but the river regularly erodes the river banks on which the plots of land allocated to the Mising villagers are situated. These villages are washed away every year and the people are thereby compelled to find new lands to build new houses and to satisfy their daily needs. Some of the families are resettled inland, other families choose to stay on the river bank but they have no land rights and settle illegally in the fringe area of the KNP on the Forest Department land.

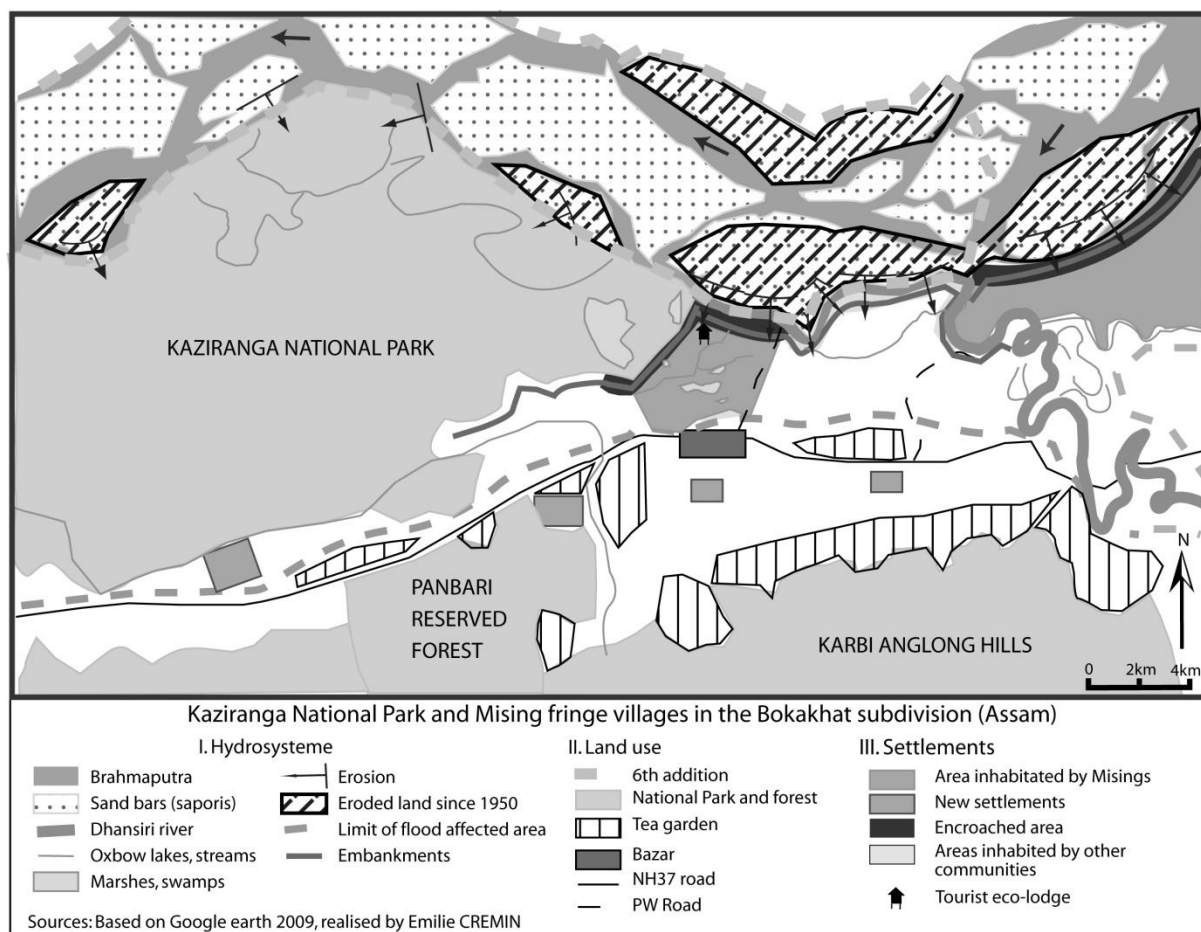
Kaziranga National Park fringe villages and the Wildlife Conservation policy

The Kaziranga Reserved Forest was created under the British rule in 1908 but the villagers could collect some forest products until the foundation of the Kaziranga National Park in 1974. From this time, conservation policy has increased the separation between the wildlife protected area and the local people. Until its creation, the KNP was a temporarily inhabited space and a part of the territory of the Bokakhat Mising community. Since that time, the villagers have been excluded from the protected area.

Physical constraints and pressures on natural resources caused by demographic pressure have compelled the Forest Department to implement a number of measures to improve the protection against the encroachment of local villagers (Gokhale 2005). One of these territorial planning measures concerns the extension of the protected area by integrating the sand bars created after land erosion in a 6th addition^x (Mishra 2005, Smadja 2009, Dieulot and Vassor 2008). Having been evicted from the successive additions of the protected area, the Misings are directly affected by these conservation policies. The extension of the KNP area reduces land potentially exploitable by them while regulations regarding access into the park area interfere directly with the collection of non-cultivated (wild) products.

The number of protected species (rhinoceroses, elephants, buffalos, and dears) is constantly rising. With the increasing density of wild animals, some of them escape from the protected area and graze on the cultivated land but the villagers do not receive compensation for damage caused by wild animals. The park has recently implemented the construction of an electric fence to delimit the border between the wild and the domesticated animals. The extension measures have been decided upon by the authorities without any consultation with the communities and the arrangements to prevent the depredation by wild animals are still insufficient to protect cultivated lands. This situation creates tensions between the villagers and the Forest Department.

The governmental measures applied in the Bokakhat Subdivision are contradictory. The Forest Department tries to protect the area by excluding the local people. At the same time, the territorial authorities of the Bokakhat Subdivision try to help the villagers by helping them to intensify their agricultural productions (mainly paddy and mustard) but this may damage the Brahmaputra floodplains by an overexploitation of its natural resources. Meanwhile, an action plan involving co-management or participatory management is non-existent in the KNP conservation strategy.



Map 1: Map of the Kaziranga National Park and Mising fringe village in the Bokakhat subdivision. Source: Google Earth 2008, realised by Emilie Crémin 2008.

Pressure on populations and natural resources

The demographic pressure adds itself to geophysical and administrative constraints on a territory. The demographic growth in Assam has increased the population density in the Brahmaputra floodplains from an average of 286 inhabitants per km² in 1991 to 340^{xi} inhabitants per km² in 2001. This growth limits access to sufficient agricultural land and increases the pressure on the natural resources. The lands are continually being exploited and the production of crops intensified, which leads to over-exploitation and to degradation of biodiversity, soil fertility and reduction of harvest. In Assam, population density is also increasing due to the migration of people from Bangladesh^{xii} and Bihar. Facing an annual environmental devastation in the Gangetic plains, thousands of families are annually searching for lands where they could settle. These families subsist essentially on paddy cultivation, fishing and cattle grazing. They

encroaches the Forest Department land and compete for access to the limited natural resources with other dwellers of the floodplains and they also get involved in conflicts with the territorial authorities.

As a matter of fact, the combination of geophysical, administrative and demographical constraints adversely affects the territory and obliges the Misings to modify their way of life. The anterior social-ecological systems of the floodplains dwellers are disrupted and become more vulnerable to changes, whereas they used to have an adaptive strategy to cope with natural hazards. The social-ecological system is hardly able to adjust to higher pressure on natural resources because of scarcity of land and administrative restrictions. This environmental concern is ultimately increasing the impoverishment of the riverine communities.

Mitigating the consequences of environmental change

In a situation of trouble, the Misings of the fringe villages of the KNP try to find some new adaptive strategies to cope with natural hazards and administrative constraints. The villagers ask for resettlement on legal land but this process frequently takes many years and many households stay landless. So they shift their villages and settle on lands away from floods such as embankments or alluvial terraces. Affected by erosion, they relocate their villages on sites situated outside the limits defined by the land use plan. Whereas there is no legal right of the displaced villagers, the villagers settling on the public land are called “encroachers”. They are mainly settling on the embankments to protect themselves from floods even if they are liable to administrative eviction. From those embankments they have access to the sand bars on which the cattle can graze and from which they can extract natural resources, as they did previously. But, since 1999 this area has been included in the KNP and the access to this land is controlled by the forest guards.

Government-led flood, erosion and poverty alleviation initiatives

Since the 1980s, public authorities have been implementing different projects in order to spur the development of the floodplains territories. Embankments are built to fight the devastating effects of floods and erosion. However, they are changing the hydro-geomorphologic structure of the alluvial floodplains by separating the swamps from the hydrographical network

and actually impeding the process of wetlands draining. The embankments have not been successful in protecting the land from the floods as breaches frequently occur and large areas of land are consequently damaged by sudden flooding. Technological improvements are not sufficient to control the vagaries of the powerful river. Nevertheless, we observe an unexpected process in the cultivated area close to the KNP: the streams connected with the watershed of the park permit the regulation of the floods within the fringe villages (Dieulot and Vassor 2008).

To solve the problem of “encroachment”, authorities have relocated and resettled four villages affected by erosion further inland. These new villages are integrated into already existing land use plans. They are often rebuilt near tea gardens, on parcels of land which are not suitable for the agricultural techniques used by the community and where the access to natural resources is limited. So, those Misings who have been resettled inland by the local authorities commute many kilometres every day to reach the lands and the swamps where they can extract the resources which are necessary to follow their traditional practices. While adapting to a new natural environment and the Assamese society, some Misings have changed their practice. As thousands of villagers have lost their lands and are consequently unemployed, they are starting new economic activities. Villagers living below the poverty line receive some help from the Public Distribution System^{xiii} (PDS) and from rural development programmes.

The Indian government is promoting the modernization of agricultural practices to increase productivity by introducing new varieties of high-yielding rice, of inputs (pesticides and fertilizers) and irrigation systems using motor pumps (see Landy 2006). These new techniques applied by them in Bokakhat are leading to overexploitation of ecosystems. The pesticides dissolved in the water might have already altered the composition of the flora and fauna in the marshy lands.

Modernization has transformed agricultural technologies. It has also made them dependent on the state and the market economy. The creation of Self Help Groups (SHG) respects the social organisation of the villages. However, the villagers frequently return to their traditional practices after they have used the subsidies. Only a few projects are economically sustainable.

Coming out of territorial claims in the Mising territory

The territory is a space used, appropriated and bearing the identity of a society. It is an arrangement of material and symbolic resources that can structure the daily life style of a group (Debarbieux 2002). Territorial boundary limitations are created by the implementation of the cadastral plan and revenue village rules (see Brunet 2005). These two aspects of the territory - identity and administration – often contradict each other in the provision of land for the various parties involved. Mising people's occupation and use of land are traditionally ruled by indigenous jurisdictions which are different from those determined by the central government. To Mising villagers, territory is inevitably linked to natural resources. It extends to all the spaces occupied by them in Upper Assam. Solutions proposed by public authorities have failed to take into account the cultural and socio-ecological particularities of the Mising tribe. Therefore the group continues to find its own solutions to the environmental constraints.

While the Naga, Bodo and the Karbi tribes have claimed their territorial autonomy (self rule) since 1947, the Misings have started to assert their constitutional rights from the 1980s (Racine 1996). In a regional context, already restructured by tribal autonomous territories (e.g. the Bodo, Karbi, *adivasi*'s), the main organisations of the Mising Tribe^{xiv} are asking for the application of constitutional rights through the Mising Autonomous Council created in 1995 (Pegu, 1998). The territorial claims of the MAC are based on the request for the application of the rights indicated in the 6th schedule of the 1950 Indian Constitution that already has a provision for the administration of Tribal Areas in the states of Assam, Meghalaya, Tripura and Mizoram. These claims are influenced by regional and international dynamics which recognise the rights of indigenous peoples^{xv}. By this way, Mising villagers may acquire more control over the restructuring process of their territory in Assam. The claim for an autonomous territory represents a strategy to improve some of the social and environmental concerns. Nevertheless, the autonomous council needs to integrate the community at the grassroots level as it has remained until now guided by the community's elites nominated by the state government. The Mising tribe's organisations wait for the elections which should be declared by the State of Assam. Electoral system may empower the population which would get involved in the debate and would participate to the construction of a common territorial development project.

The 27 villages of the Bokakhat subdivision^{xvi}, the “Dhansiri-Diboï constituency”, are included as the satellite area of the expected Mising autonomous council. The community hopes to get involved in the management of the additional areas under KNP. The judgment on the “6th additional area” case is still pending in the Gauhati High Court (Smadja 2009).

Conclusion

The Misings are dependent on the natural resources of the floodplains for their livelihood. The local ecological knowledge has permitted them to manage an ecosystem which is rich in biodiversity. This interaction between the Misings and the Brahmaputra floodplains environment has formed a social-ecological system that is different from such systems elsewhere.

However, the evolution of geophysical and administrative constraints, as well as additional pressures due to demographic growth and intensification of farming on reduced land, are leading to the ecosystem’s transformation in the fringe villages of the KNP. Since the creation of KNP, access to the park is prohibited and the 6th addition area includes the eroded land of Mising villages, transformed in sand bars, on which the conflict is based. Co-management is still not considered in the territorial management projects. Therefore the villagers are excluded from the protected areas and have become vulnerable to the recent dynamics.

The National Forest Policy 1988 recognises that the "lives of tribes living with and near the forests revolve around forests" and enjoined that "the rights and concessions enjoyed by them should be fully protected. The domestic requirements of fuel wood, fodder, minor forest produce and construction timber should be the first charge of forest produce". The policy further recognizes the symbiotic relationship between tribal peoples and forests. The international community has recognized the close and traditional interdependence of many indigenous and local communities with their environment, notably in the preamble to the Convention on Biological Diversity in 1992. There is also a broad recognition that traditional knowledge can serve conservation and sustainable use of biological diversity, two fundamental objectives of the Convention (Métailié and Roussel 1998). In December 2006, the Indian Parliament passed the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act. This historic legislation marks for the first time in India's history that a law has been passed recognising the rights of forest communities.^{xvii} It aims at giving them “responsibility and authority for sustainable use, conservation of biodiversity and maintenance of ecological balance

[...] strengthening the conservation regime [...] while ensuring food security” (Forest Right Act notified on 1st January 2008).

The recent recognition of the rights of indigenous people could influence the authorities of the Bokakhat subdivision and the KNP officers to take into account the objectives set by the Convention on Biological Diversity: “Conservation of biodiversity, sustainable use of resources and equitable share of its advantages”, in order to allow the association between biodiversity conservation and sustainable social development. Ecosystems are complex adaptive systems, and their governance requires flexibility and capacity to respond to environmental feedback (Levin 1998, Berkes *et. al.* 2000, Dietz *et. al.* 2003). Accordingly, societies depending on natural resources need to be flexible and constantly develop knowledge and understanding in order to cope with changes and uncertainty in complex adaptive systems.

The Misings try and find new strategies in order to recover a territory which is under the combined pressures of administrative restrictions and biophysical hazards. Territorial claims are rising as a reaction to this situation. As the Assam government and the local administration do not propose specific answers to their concerns, they claim the application of a territorial autonomy. With territorial autonomy, the tribe also expects to get more facility to rebuild the traditional land use. The tribe’s territory is currently under construction. The creation of a Mising autonomous council will probably restructure the Upper-Assam territory during the coming decades. With autonomy, they wish to get a better control of their territory. If decisions guide the management of natural resources to a new management mode, then a new social-ecological system tends to be put in place (Smadja 2009).

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ⁱ As defined by the Indian constitution, the Mising group is classified as a “Scheduled Tribe”.

ⁱⁱ The environmental constraints include social and natural processes.

ⁱⁱⁱ Natural criteria ix and x of the World Heritage List.

^{iv} The 1950 earthquake (8.7 on the Richter scale) strongly modified the hydrology of the Brahmaputra flood plains. The Himalayan Mountain slopes have subsequently liberated sediments which were deposited in the plains, raising the level of the river bed. When combined with aquifer saturation as a consequence of high monsoon rainfall (about 2584 mm average a year) this situation causes regular floods and land erosion which entails severe damage to homesteads (Sarma 2005).

^v When comparing the 1958 land use plan of the Bokakhat Subdivision with satellite pictures of 2005 and 2007 (Google earth 2005, ONUSAT 2007).

^{vi} The *Ali Aye Ligang* is celebrated in the month of *Falgun* (February) of the lunar calendar to celebrate the ancestors and to insure good paddy cultivation.

^{vii} The *hali* rice is cultivated in the Brahmaputra floodplain since the Ahom rule (13th century).

^{viii} Polyculture is an agricultural system using multiple crops in the same space, including arboriculture and avoiding large stands of single crops, or monoculture.

^{ix} Agrobiodiversity or agricultural biodiversity, "encompasses the variety and variability of animals, plants and micro-organisms which are necessary to sustain key functions of the agroecosystem, its structure and processes for, and in support of, food production and food security", see Caillon 2005: p.20.

^x The sixth addition is the largest with 376 sq km of riverine stretches of the Brahmaputra River and was added in 1999. However, it is yet to be materialised fully due to litigation.

^{xi} <http://www.assamgov.org/ecosurvey/Population.htm> (June 2008)

^{xii} The migration of families from Bangladesh to Assam is an important issue since 1971.

^{xiii} cf. Frédéric Landy 2006.

^{xiv} The '*Mising Agom Kebang*' (Mising language society), the '*Takam Mising Porin Kebang*' (All mising student union), the '*Mising Mimag Kebang*' (Mising Action Committee) and other groups.

^{xv} Convention OIT 169, Convention on the biological diversity (CDB), Rio Declaration on the environment and the development of 1992 and Indigenous People Rights Declaration adopted the 30 June 2006 at Geneva and validated by the ONU in September 2007, support the indigenous people claims and in India, the “Scheduled Tribes and Other Traditional Forest Dwellers Act” recognise the forest rights.

^{xvi} 60 per cent of those 27 villages are inhabited by Misings.

^{xvii} <http://forestrightsact.com/>