

Chapter 4

CONSERVATION WITHOUT PARTICIPATION: DETRIMENTAL EFFECT OF ESCAPING PEOPLE'S PARTICIPATION IN PROTECTED AREA MANAGEMENT IN NEPAL

Sushma Bhattarai^{1,*}, Basant Pant² and Niroj Timalsina³

¹Institute of Forestry, Tribhuvan University, Pokhara, Nepal

²International Center for Integrated Mountain Development (ICIMOD),
Kathmandu, Nepal

³Nepal Science Resource Centre, Kathmandu, Nepal

ABSTRACT

Nepal has undergone several policy reforms over the years to address multi-dimensional global conservation goals. However, such reforms, in most cases, seems disregarded the participation of local people; leading to the conflicting situation between the state and the people. Relocation program, one of the government policy implemented to enhance levels of nature protection, carried out involuntarily, has often been accompanied by poverty, deprivation, and dissatisfaction among local people. Based on the desk review of conservation policies and field study from in and around Shuklaphanta Wildlife Reserve (SWR), we analyzed the effect on the local people due to changes in policies for managing protected areas (PA) over the years. The results showed that the involuntary displacement

* Corresponding author: Email address: bhattarai.sushma@gmail.com (Sushma Bhattarai).

of households from PA especially indigenous communities resulted negative social impact including restriction on people's customary rights to access natural resources and direct impact on livelihoods. This chapter suggests that such policy reforms and integrated management should be done with proper participation of people being affected, therefore, to insure sustainability of the policy implementation.

Keywords: people's participation, displacement, conservation, conflict, protected area

INTRODUCTION

Protected Areas (hereafter referred as PAs) are major area for biodiversity conservation and have specific biological, cultural, spiritual, economical and aesthetic values (Dudley and Phillips 2006). These pristine sites, often located in the remote areas, serve as safety nets for Indigenous and other people for various purposes (fuelwood for energy, fodder and grazing area for livestock, wild foods, thatch grass, non timber forest products etc.) (Lepetu et al. 2009). However, these PAs are managed with limited or no participation of local people and the relationship between PAs and local people are often conflicting (Andrade and Rhodes 2012; Wapalila 2008). The local people, using resources for generations sustainably are often viewed as a culprits (Andrade and Rhodes 2012). For nature conservation, local people are forbidden from using natural resources, and are displaced away from PAs, which badly affect their livelihood (Agrawal and Redford 2009).

Involuntary displacement is common in many countries which is generally imposed to establish or extend PAs, in the name of biodiversity conservation (Olivier and Goudineau 2004). The social impact of PAs is documented by many authors throughout the world (Lam and Paul 2013; West et al. 2006; Paudel 2006). Such displacement have major social impacts on local community, principally indigenous people (West and Brechin 1991). It is difficult to get the figure of displaced houses across the globe as it is not properly documented (Adams and Hutton 2007). Though the exact number of population relocated are often questioned, the available evidence pointed to the seriousness of population displacement issue during PA establishment and extension which can lead to interconnected problems (Agrawal and Redford 2009). Thus, the long term management of PA needs to involve concerns of

local people which can balance conservation and sustainable development (Struhsaker et al. 2005).

Although community based approaches in PA management have increasingly been implemented in many areas (Bajracharya et al. 2007) and got significant success in terms of conservation goals and community development, still there are some PAs in Nepal that are managed through top down approach without involving local people in governance process. The approach, though successful to protect wildlife and its habitat, was in the expense of property and life of the people living nearby the PAs (Lam and Paul 2013; West et al. 2006).

PROTECTED AREAS AND LOCAL PEOPLE: THE CONTEXT OF NEPAL

Nepal has been in the global forefront for nature conservation and has its commitments towards global conservation agendas. Of 118 ecosystem of Nepal, 80 are being protected under the intensive management of 20 PAs that includes 10 National Parks, 3 Wildlife Reserves, 6 Conservation Areas and 1 Hunting Reserve located over three geographic region i.e., Mountain, Hills and Terai (DNPWC 2016). Except conservation areas, all the 17 protected areas management are regulated by Department of National Parks and Wildlife Conservation (hereafter referred as DNPWC) in collaboration with Nepal Army, where people are not involved in the management decisions (DNPWC 2015). In Terai only, there are 6 protected areas including three national parks and three wildlife reserves covering an area of 3567 km² that is about 14 percent of total area of Terai in Nepal. The Shuklaphanta Wildlife Reserve (hereafter referred as SWR), our study area, is one of such PAs where the state controlled management is operational.

The notion behind establishment of the SWR was derived from conservation; where development agendas are considered, only, if they are compatible with conservation goals. Authors have argued that PAs except conservation areas in Nepal were mostly managed with little consultation with local people (Ghimire 1994; Mishra 1984). Settlements inside the core areas were displaced elsewhere, for example, Padampur village in Chitwan National Park (CNP) (Dhakal et al. 2006) and many villages including our study area Dhakka in SWR (Lam and Paul 2013). The indigenous communities were restricted on their customary rights of using natural resources of PAs.

Moreover, extension programme in SWR excluded the participation of local people being affected and involuntary displacement was done. This resulted in conflict between PA authority and displaced people. As a result the dissatisfied people encroached into previous area from where they were relocated.

The conflict between protected area and people is complex in Terai mainly due to population influx, rich biological diversity, and fertile land (Shrestha and Conway 1996; Brown 1995; Ghimire 1994). The increasing demand for natural resources by local people, damage and loss of properties and life by wildlives often created conflicts between PA and people (DNPWC 2015). The widespread park people conflict in some areas resulted in the destruction of flora and fauna, valuable habitat, including ecosystem (DNPWC 2015).

The actions taken by the state to reduce conflicts were not convincing, they were driven by the objectives of either supporting conservation or by political agendas. Government took few initiations for people's participation in conservation by amending some policies like National park and Wild Life Conservation Act 1973, Buffer Zone Regulations 1996 and Buffer Zone Guidelines 1999 (DNPWC 2015). Removal of thatch grasses on a season basis from PA in Terai, zoning regulations for some extraction in the conservation area were some of the example of such initiatives. In this chapter, we put forth the evidence of detrimental effects of not involving people in SWR management and employing involuntary displacement programme.

THEORETICAL CONTEXT

Participation has been an important instrument for conservation and development globally (Brown 2002). Participation is used as a strategy of managing forest resources in the past to fulfill consumption demand of resource dependents population in developing countries (Angelsen and Wunder 2003). Indigenous communities has built customary institutions to use participation as a tool to fight adversities, sustain social values, and enhance transparency (Ostrom 1990). Authors have said that institutionalization of participation gives 'the poor' more voice and choice in development (Cornwall 2006). This 'voice and choice' is a main instrument to motivate people for resource conservation; it helps building collective action.

Traditional practices are developed from collective actions of local communities over generations (Agrawal and Ostrom 2001). International agreements like Convention on Biological Diversity (CBD) also look for

customary use of biological resources in line with traditional cultural practices compatible with conservation; the parties to CBD also emphasize on involving local people to deal with forest degradation (United Nations 1992). Concerning to *Common Pool*¹ resources, studies on forest user groups, farmers management irrigation system, fisheries etc. show that owners have built institution and authority rules to exclude non-contributory, devise monitoring mechanisms and to use graduated sanctions against those who do not conform to the rules (Agrawal 1994). However, scientific conservation logics emerging from western conservation concepts believes which conservation is best achieved by separating humankind from nature and creating wilderness (Colchester 1994). As consequence, American model (western conservation concept) of conserving resources is followed all over world including developing countries where the socio-economic context is completely different (Adams and Hutton 2007). Such approaches are justified on the grounds that “most of the Earth has been colonized by humans only in the last several thousand years” (Butler 1992). Participation has been blamed for having, mostly, captured by elites in the society; often affected by those in the immediate social environment (Adger et al. 2006). Few people who have access to position and power use participation tool according to their need and for self-indulgence (Dasgupta and Beard 2007). Propositions have been made that per unit use of the resources by one user has per unit cost implication on other. The two character i.e., difficulty of exclusion and subtractability, cannot be managed by the local people, therefore, the state intervention is required (Hardin 1968).

Authors have argued that there are no such proved evidences to show that approach of separating humankind from wilderness are successful in conserving biodiversity (Colchester 2012). However, this notion is challenged by development outlook, which acknowledged conservation as a risk to human welfare (Brown 2002). Arguments have also been placed that common pool resources are, at many places, managed by the local community through their traditional institutions, customary practices and norms (Ostrom 2002). Moreover, the studies have suggested that the PA management usually fails when the outsiders initiates or directs the involvement of local communities (Colchester 2012). Valuing above propositions, we would like to refer Ostrom’s principles of managing commons which were proposed based on her extensive research work around the world including Nepal. She proposed that

¹ Common pool resources are those resources which are characterized by subtractability (i.e., withdrawal by one user reduces the amount of the resource left for others) and joint use by a group of appropriators (Ostrom 1990).

the rules for governing natural resources should be pertinent to local needs and conditions, can be modified by the affected people and such modification are respected by external authorities (Ostrom 1990), which otherwise would have detrimental effects. It is based on the principles of including local to manage the biological resources therefore, to ensure the good resource governance.

STUDY AREA AND RESEARCH METHOD

This study draws evidences from Dekhatbhuli-1, Dhakka, a block included in core area of SWR after displacement of 146 households. Dhakka lies between 28°46'52.0"N and 80°20'37.8"E. Out of 146 households displaced from "Dhakka" block, we randomly selected and interviewed 43 households (29% of total households). Semi-structured questionnaires survey was administered to sample households, the information were then triangulated with key informant interviews with the reserve officials, local leaders and key persons of the community. We also looked at the tenure of committees formed to resolve the conflict between SWR and displaced people and how it aggravated the conflict.

We tried to explore three evidences as i) situation before displacement of people, ii) situation after displacement of people and iii) present situation. For this, Google Earth image of three time periods, i.e., 2003, 2006 and 2015 along with topographic map were used.

House unit of 2003 were marked in the Google Earth image, reflected the situation before displacement of the people. It was also verified with house unit of topographic map, published by Department of Survey (DoS), Government of Nepal in 1996. For this purpose, house unit of topographic map was projected in Modified Universal Transverse Mercator projection system (MUTM) with 81⁰ Central Meridian and datum as Everest 1830. Later on, it was transferred into World Geographic System (WGS-84) which is compatible with Google Earth. Similarly, available Google Earth image of 2007 for second situation (without people) was downloaded and presented as evidence of after displacement of households. Finally, each house units were marked in the Google Earth Image of 2015 and was verified with reference points from field for demonstrating the current scenario.

Similarly, other factors which can affect the resettlement inside the park such as population pressure and occurrence of disasters were analyzed. The population data from CBS, Google Earth image of 2006 which reflected the

situation before flood and image of 2015 reflecting situation after flood were used. Land cover data of 1993 and 2015, compiled and prepared by Presidential Chure-Tarai Madesh Conservation Development board were used for land cover change analysis of Kanchanpur district. The rate of change was calculated by using equation derived by FAO 1995 and Pokharel et al. 2015.

$$\text{Rate of change} = ((A_2/A_1)^{(1/(t_2-t_1)-1)}) \times 100$$

Where,

A_1 = Area of land cover type at time t_1 (1993)

A_2 = Area of land cover type at time t_2 (2015)

Lastly, this chapter presented how the extension of PA is aggravating the situation.

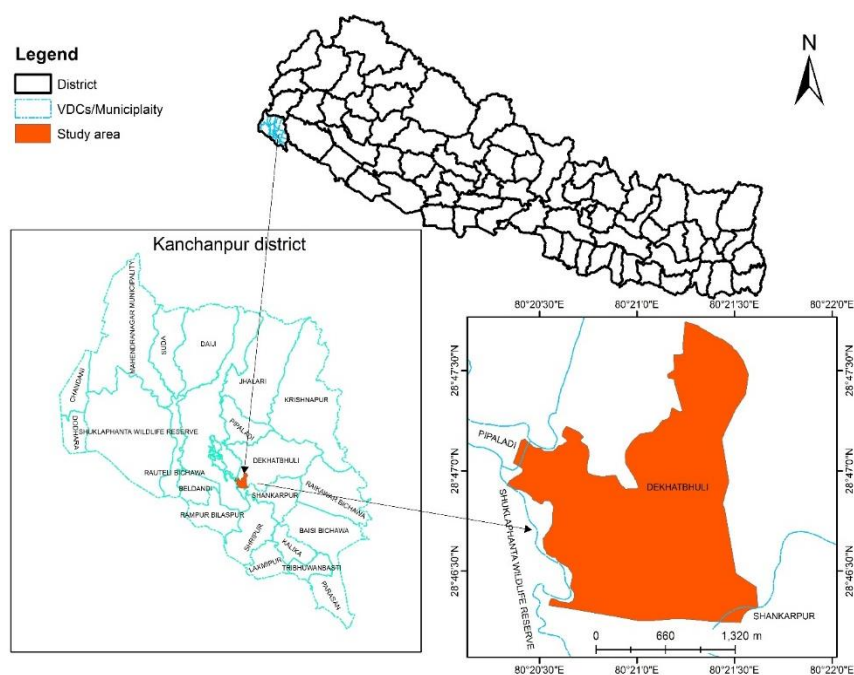


Figure 1. Map showing study location in Nepal.

RESULTS

Relocation History of Shuklaphanta Wildlife Reserve

‘Dhakka’ of Dekhatbhuli ward no 1 was home to 146 households before displacement, among which 46 households had registered land in the area, and 100 had unregistered land. The major group found in the area was Tharu (an indigenous community), Brahmins, Chettri, Dalits and other caste groups, who migrated from some hilly districts of Far West Nepal. The social institutions were already developed in Dhakka where people maintained and replicated their culture, belief, and practices. These communities were residing in Dhakka before the declaration of SWR. The digitization of the Google Earth image (2003) resulted that 151 house unit were situated within Dhakka block which also resembled with topographic layer. The settlements were concentrated along the bank of districts road connecting Belaury (a town which is about 14 KM south of Dhakka) with national highway. Another cluster of houses were seen along the cart tract which join Dhakka to Chamarkatti and then Sikhalpatti Jai villages. We found that 5800m of cart tract was established before displacement, which indicate sound development of infrastructure during that period (Figure 2).

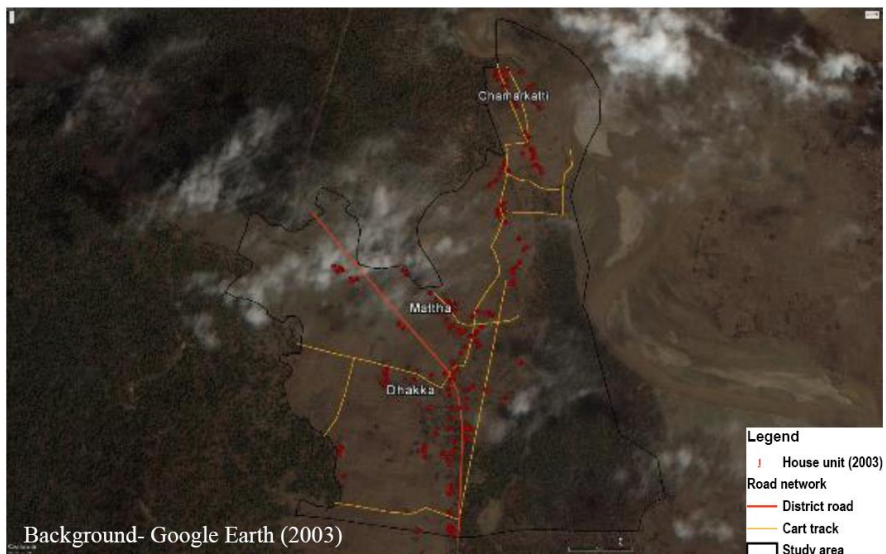


Figure 2. Scenario of Dhakka, SWR before displacement.

During the displacement, 46 households owning registered land in Dhakka were given same amount of land they had. However, 100 households settled in unregistered land were relocated without any compensation. The land provided to 46 households was, however, of poor quality in comparison to the land in Dhakka. The unused 5.8 kilometer cart tract is disappeared after the displacement of settlement from Dhakka (Figure 3).

People resettled in “Dhakka” block in January 22, 2008 which can be observed from the image of 2015 (Figure 4). The settlement is denser and covered larger area than before. The settlement growth is also seen in forested area and recently abandoned flood plain challenging nature conservation as well as life of settlers. The analysis of 2015 image and field verification showed that 584 households were encroached in Dhakka, which is four times more than the households displaced which brought development in the area. The total cart/tracts which were vanished from the areas previously are now increased up to 14.7 kilometer. People have built the hand pumps in the block to fulfil their drinking water requirement. Tea stalls and small grocery shop are opened reflecting rapid growth of settlement and other infrastructures.



Figure 3. Scenario (without settlement) of Dhakka, SWR after displacement.

Management Activities in the Evacuated Area

After displacement of the population from the Dhakka block, three interventions were done by the park authority as: i) marking the boundary of the reserve, ii) placing reserve post and officials and iii) establishing Army base. These activities intent to support the conservation objective of the reserve. According to the interview conducted with reserve officials, other management interventions were not steered in the block. One of the displaced person during the interview raised a concern about their displacement and asked “Why the area is cleared off when PA authority leave the area without any management activities.” This reflects that government has not come up with the clear long term management plan which have come if the PA authority had respected local people’s need and their ideas for conservation of the area.



Figure 4. Current situation of Dhakka, SWR (2015).

Population Growth and Other Causal Factors

People have been migrating to plains of Kanchanpur district to increase their social position. The average annual population is increasing every year as

a result population density, since 1981, has been more than double (CBS 2014). According to the Nepal Living Standard survey reports about 85% of this population increase is contributed by the people from rural Far West hills who migrates to the rural Far West Terai (CBS 2011). Almost all the population (97.8%) uses firewood as main energy source, of which 86.7% uses firewood for their household cooking (CBS 2011). The main reason of migration was to diversify livelihood risk in the absence of insurance market (Poertner et al. 2011).

Land Use and Disaster Scenario

Land cover analysis of two decade that is 1993 and 2015 of Kanchanpur district showed that human settlement has increased at the rate 4.1% per year, indicating population pressure on the available land in the district. Although, several agencies are working with SWR for forest conservation over the last two decades, decrease in forest cover by 0.1% per year, questioned the effectiveness of past efforts on conservation. Similarly, increase in barren land and decrease in cultivated land at the rate of 0.2%, indicates the poor food security situation in the district. Peoples in such environmental condition tend to live near forest area to diversify their livelihood options, therefore, to reduce possible risks.

Flash flood is a major threat to people and their properties in Kanchanpur district of Nepal. A study conducted by HELVETAS-Nepal (2015) highlighted the flood characteristics in Doda river system comprise of debris fan and associated flash flood along Chure foot hill and bank scouring, overland flow, channel shift, channel migration and avulsion, inundation (short period as 2-3 days) and severe inundation (longer period as 3-4 moth) are major problem across the downstream (Timalsina et al. 2015). The same study concluded that Doda river system (Chure foot hill to Nepal-India boarder) has eroded more than 900 hectare during 2002-2014, reflected the extent of damaged from flood along the river corridor. Doda village which is nearby Dhakka, was flooded that washed away 65 houses and damaged more than 120 hectare of land between 2006 – 2015 (Figure 5 and 6). These floods affected people also encroached the park area.

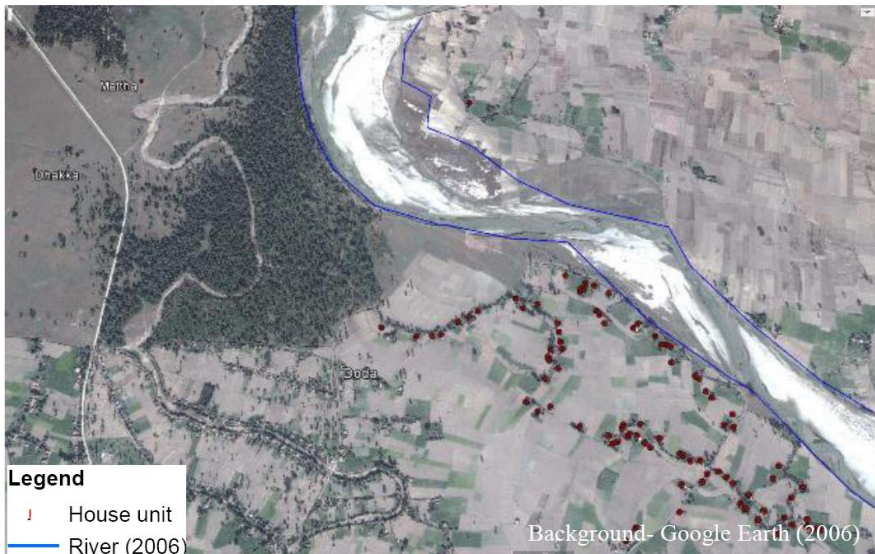


Figure 5. Doda River near Doda village in SWR (2006).

Status of Participation by the Displaced People

Of the total 146 displaced people from Dhakka Block, we interviewed 43 people if they have participated in various types of events, and training organized by the reserve; these include skill and institutional development training such as income generation, agriculture based training, office management, leadership development, gender related, adult literacy etc. However, almost all the respondent replied that they have not got any sorts of training from the reserve management while they were residing inside the reserve. Only 2.3% of the respondent replied that they had taken training related with skill development.

Impact on Livelihood and Resources Assets of Livelihood

We looked at the three aspects of livelihood i.e., physical, financial and social that serves as important livelihood assets of an individual. The indicators of assets are landholding, food sufficiency, Livestock Unit (LSU), education, and the area of land they possess before and after relocation.

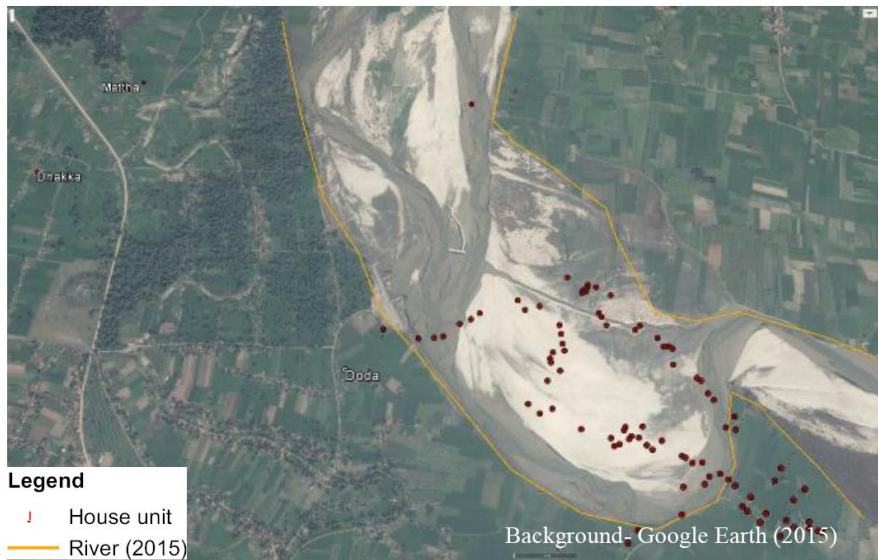


Figure 6. Doda River near Doda village (2015).

The average annual income of the respondent before relocation was NPR 49,429 (1 USD= 73 NPR in 2003) and after relocation was NPR 50,301 (1 USD= 67 NPR in 2007) indicating insignificant increase in the income. The physical capital of the relocated people is not significantly increased in new area except irrigation facility. Of the total 43 respondents surveyed, the percentage having permanent households (at least wooden), have increased from 93 (before relocation) to 95.3 (after relocation). Similarly, water supply situation has also improved; the percentage respondent having access to drinking water supply in their homestead has increased from 97.7 (before displacement) to 100 (after displacement). However, the water supply for irrigation has improved significantly in new place; the respondent replying that the access to irrigation facility has increased from 11.6 to 72.1.

Of the total 43 respondents, the area of land they possessed has reduced from 2.60 hectare to 2.22 hectare per household however land was of lower quality in the new area; bringing significant effect on the food sufficiency. 93% replied that they used to have enough food throughout the year, however, this has reduced to 58.1% after relocation. Similarly, the livestock holding has also reduced from 13.66 LSU to 3.71 LSU. Furthermore, the respondents replied that they were not involved in any kind of decision making in PA management and neither received any kind of trainings when they were staying inside the PA.

The relocation programme also broke the informal institution and connections. All respondents replied that they have lost the kinship mechanisms they developed inside the reserve which has resulted breaking of social safety nets.

Altogether 90.7% of the respondents replied that they were not allowed to take part in planning process and other decision making process when they were inside the vicinity of the reserve. Similarly, 18.6% of the respondents have taken part in decision making process about relocation; of which 97.7% were the people with strong political ties. 86% responded that they were not satisfied with relocation carried out in the reserve.

From the analysis of different assets of livelihood, this chapter found that livelihood of the displaced people is negatively affected, mainly in food security and social assets. Majority of displaced households didn't receive any land as they lack land registration certificate, thus these households resettled again inside the park hoping to get their land back.

The Limitations of Policy Instruments

The protected areas in Nepal were established with the objective of protecting wildlife and their habitats like most other PAs in the world. The conflict between the reserve and the people started with its first relocation programme carried out during the establishment of the reserve in 1976. The two villages namely Hariya and Singhpur of Rauteli Bichawa Village Development Committee (VDC) were relocated; the relocation programme come to an end in 2002 with the relocation of people from Dhakka Block. To address the conflicting claims of relocated people, the government formed its first SWR Land Conflict Resolving Committee in 1981 (Table 1). The first committee was formed in 1981 and the last committee was formed in 2012. Altogether 27 committees were formed during 31 years and 9 months, average tenure of each committee was 1.18 years, with minimum tenure of 23 days to maximum of 5 years and three months. Majority of these committees were formed after the adoption of parliamentary democracy in 1990. The committees were formed to fulfill political interest and to increase vote banks. The consequences was not standing on the decisions made by previous committees as a result, many people have registered their name as the relocated people in the hope to get land or compensation from the government but none of the committees could complete their work. This has increased the

dissatisfaction among the people. As a result 584 households encroached the Dhakka Block.

Table 1. Tenure of the SWR Land Conflict Resolving Committee

Committees	From	To	No. of Days
1	1/16/1981	8/17/1981	214
2	1/16/1982	6/18/1984	885
3	1/6/1986	6/6/1986	152
4	6/8/1986	6/12/1905	1924
5	NA ²	NA	NA
6	7/20/1992	12/10/1992	144
7	4/23/1993	4/10/1994	353
8	5/19/1994	12/11/1994	207
9	4/17/1995	6/16/1995	61
10	6/23/1995	7/15/1995	23
11	4/15/1996	7/15/1996	92
12	NA	NA	NA
13	6/9/1997	1/13/1998	219
14	5/9/1998	NA	NA
15	10/9/1998	4/13/1999	186
16	3/19/1999	9/21/1999	186
17	2/4/2000	NA	NA
18	7/21/2000	NA	NA
19	3/24/2002	1/14/2003	296
20	3/15/2004	5/15/2004	61
21	8/28/2006	7/14/2007	320
22	8/20/2007	7/15/2008	330
23	1/15/2009	7/17/2009	183
24	10/24/2009	7/14/2010	263
25	7/17/2011	11/13/2011	119
26	11/14/2011	1/13/2013	426
27	4/13/2012	10/16/2012	186

DISCUSSION

Achieving global conservation agenda through national interventions has been an important milestone in Nepal. However, the approach of displacing people from PA for biodiversity conservation was not coherent with the local

²NA: The exact date of the start of the tenure of the committee is not available.

conservation and development needs. The strategy adopted by government to displace people for conservation has been increasingly questioned by several authors as this brings social inequalities, and break down peoples social safety nets (Agrawal and Redford 2009). We found that relocated people have lost their important livelihood assets due to relocation programme, the finding is supported by another study conducted by Lam and Paul (2013). Displacement of local communities from their lands without participation and agreement in SWR has brought the detrimental effects to the biodiversity conservation, as a result the people encroached the displaced areas that challenged the command and control management system as also concluded by other authors (Andrade and Rhodes 2012; Fu et al. 2004). It is important to note that the local people were not involved during the preparation of relocation plans as a result the management authority failed to achieve peoples acceptance of the conservation plans adopted for the reserve as has been practiced in other conservation approach in the world (McLean and Stræde 2003). People thought that displacement from SWR as a rejection of rights to resources (Brown 2002). Authors have presented that the locally developed conservation plans and process are comprehensive, sustainable and have higher acceptance rather than the plans imposed by external authorities (Ostrom et al. 1999).

We analyzed that the problem of SWR raised with lack of local participation and has taken multi-dimensional shape with weak management governance. The problem has aggravated and became complex with population growth, flood and its own extension. However, the state authority assumes that the problem is straight forward and takes the management interventions unilaterally. The quality land required for increasing population growth is shrinking in the district with the increase in the water induced disaster and also with increase in protected areas.

The people, in search of their safety nets, moved into the protected areas where these displaced peoples find their safety nets. Sunderlin et al. (2005) found that peoples dependency on forest resources increases with increasing population growth and with scarcity of arable lands. We found that the people have encroached the area not just they are not happy with the relocation, it is because of the approach taken by government to govern the reserve management, time taken by the government to address the peoples need timely, and not recognizing local people's right to resources, and not involving them in the extension programme development process right from the beginning. In addition, frequent changes in government's management have delayed solution of problems. The situation has not become worse like current

situation if the government has made relocation programme comprehensive and if the local people were involved.

Here we are not questioning the government's objective of addressing the global conservation agenda through its protected area management. We are, in fact, analyzing that the approach taken by government was not suitable to the local context. The government approach in protected area management is undoubtedly changing, for example in case of Annapurna Conservation Area, where the local people are provided the rights to manage their own resources. The management decisions should be developed based on comprehensive and participatory planning, where local people's voices are heard and their choices are taken care of.

Nobody can control the migration of the people as these are guided by the need of the people to live with secured livelihood condition. However, asset in our hand is comprehensive conservation and development planning. We can involve local people, ask them the ways to protect wildlife and other natural resources.

CONCLUSION

Nepal has created milestone in conservation and participatory management of natural resources in the world. The participatory model in forest management has showed positive results in forest conservation, capacity building and governance, however, PA is often blamed for inadequate participation of local people and stakeholders. The establishment and extension of PA in Nepal is driven by the political agenda of achieving global conservation goals. Moreover, the categorization of PA is led by international conservation criteria, which often doesn't suit social, cultural and political context of different local areas. In Nepal, majority of PAs were declared with insufficient consultation with local people. This led to the conflict between PA and people. The involuntary displacement of households from SWR especially indigenous communities resulted negative social impact including restriction on people's customary rights to access natural resources and direct impact on livelihoods. It is important to note that the pressure of local people on the PA is attributed by multiple factors such as population growth, frequency of disaster (flood), government policy and local and national politics. The conflict between PA and people can affect the PA ecosystem that can degrade wildlife habitat for which the conservation is aimed at. To avoid this, an integrated planning and management of PA that includes the planning of all

affecting factors is necessary. Yet, assurances of local participation particularly those who are affected is essential.

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Chapter 5

**CONTESTED FORESTS: INSIGHTS FROM THE
BILIGIRI RANGASWAMY TEMPLE WILDLIFE
SANCTUARY (INDIA) REGARDING THE
UTILISATION OF FOREST RESOURCES**

Elisabeth Anne-Sophie Mayrhuber^{*†}

Centre for Public Health, Medical University of Vienna
Department of Development Studies, University of Vienna,
Vienna, Austria

ABSTRACT

A considerable part of India's geographical area consists of forestlands, which provide essential ecosystem services. Such resource settings are often non-exclusive and characterised by complex tenure situations, provoking conflicting assertions over access to and use of the natural environment. This chapter examines the complex local circumstances within the boundaries of the Biligiri Rangaswamy Temple (BRT) Wildlife Sanctuary, in Southern India, which was declared a Tiger Reserve in 2011. The conditions under which utilisation of the forest occurs and the facilitation of the continuous interaction with the ecosystem is analysed. Particular focus is given to institutions and

^{*} Corresponding Author: Email address: elisabeth.mayrhuber@gmail.com.

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