

## Disputed Land Rights and Conservation-led Displacement: A Double Whammy on the Poor

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### Abstract

The practice of conservation through displacement has become commonplace in developing countries. However, resettlement programs remain at very low standards as government policies only focus on economic-based compensation which often excludes socially and economically marginalised groups. In this paper, based on a case study of the displaced indigenous people, the Rana Tharus, from the Shuklaphanta Wildlife Reserve in Nepal, we argue that compensation as a panacea is a myth as it does not effectively replace the loss of livelihoods. This is particularly the case when the indigenous community's customary rights to land are not legally protected. Our ethnographic data support the contention that the history of social exclusion is rooted in the land reform and settlement policies, which deprived the Rana Tharus of proper land rights. The present land compensation scheme resulted in a 'double whammy' on indigenous forest dwellers. The legal land title holders on average received less than 60% of their land. Moreover, due to the poor quality of soil in the resettlement areas the average crop yield was less than half the quantity produced before displacement. While economic indicators show widespread impoverishment with less food security, low agricultural productivity, and landlessness, social indicators suggest depletion of social capital in the resettled communities where there are less job opportunities and less social networks. Our study indicates that along with compensation, the concept of 'livelihood restoration' should also be fully implemented in any resettlement program to prevent further impoverishment.

**Keywords:** conservation-led-displacement, land compensation, indigenous groups, poverty, Nepal, Asia

### INTRODUCTION

Land use is a contentious issue in the context of conservation. The debate often involves what should take precedence in determining the use of land with more than 12% of the surface land under protected areas. According to the World Conservation Monitoring Center (WCMC), in 2008 the total number of protected areas was more than 12,000. While the trade-off between the claims of indigenous people and the

claims for non-human species are unclear (Colchester 2003; Agrawal and Redford 2009), biodiversity conservation is often perceived as an ethical necessity by conservationists. This is because they contend it is a global or national public good, and is essential for humanity's survival in the long term (Lam 2012). As a result, protecting the natural environment has made displacement and compensation-based resettlement a taken-for-granted strategy (Brandon and Wells 1992; Chatty and Colchester 2002; West, Igoe and Brockington 2006; Agrawal and Redford 2009).

However, the practice of conservation through displacement, which remains commonplace in developing countries, adversely affects people's welfare, and particularly that of socio-economically marginalised people (Agrawal and Redford 2009). A call for 'double sustainability'—the sustainability of people's livelihoods and that of biodiversity—has been advocated by a group of social scientists (Cernea and Schmidt-Soltau 2006). They question the moral justification

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for forcibly moving people from their homeland (Cernea and Schmidt-Soltau 2003), and suggest that policy makers should implement effective and ethical resettlement policies to reduce the risk of further impoverishment.

Dating back to the early 1990s, the 'Impoverishment, Risks and Reconstruction' (IRR) model was first proposed by the social scientist Michael Cernea (1997), in response to the economic loss and accumulated social difficulties caused by forced displacement. The IRR not only diagnoses and predicts risk but it also provides solutions for reconstructing the livelihoods of displaced people (Cernea 2000). For example, Cernea (2000) asserts that targeting landlessness with a 'land-based resettlement' scheme is more likely to arrest impoverishment, as he clearly points out that resettlers regaining access to productive land is essential for reconstruction (2000: 77). Other livelihood restoration strategies also include reemployment, house reconstruction, social inclusion, health care improvement, food security, accessibility to community assets and services, and lastly rebuilding the community. The major contribution of IRR is to shift the resettlement policy from a compensation basis to practical livelihood rehabilitation.

This paper provides a case study on the indigenous Rana Tharus community in Nepal. Our study site was the Shuklaphanta Wildlife Reserve where more than 2000 households, including the indigenous Rana Tharus, were relocated out of the Shuklaphanta Wildlife Reserve in 2001. Considering the large-scale turmoil that might result from a poorly implemented policy, the Nepalese government for the very first time carried out a land-based resettlement scheme. It was designed on the principle that all displaced families should be given cultivable land, which they lost previously due to the extension of the wildlife reserve (Bhattarai 2001: 270). Although some studies documented that displaced families experience impoverished livelihood outcomes (Bhattarai 2001; Acharya 2002; Baral 2002), neither do these studies examine in detail the influences of resettlement policies on displaced communities nor do they provide convincing ethnographic evidence on the indigenous groups who are vulnerable to economic risks. In this paper, we aim to examine the effectiveness of resettlement policy (mainly land compensation) in restoring livelihoods by using an interdisciplinary approach—combining anthropology and economics. We incorporate the historical perspective and qualitative evidence to obtain a better picture of how conservation influences livelihood outcomes. Apart from agricultural land, the displaced Ranas also lost their access to common forest resources which constituted a very important part of their livelihood systems. For reasons of space, this paper does not cover this issue.

Our findings show that land-based compensation did not restore people's livelihoods because the policy failed to respond to social divisions, particularly the control and ownership of land resources, embedded in Nepalese society. Indigenous social groups are often the victims, since compensation policies

only take into account present entitlements without considering the history and cultural transformations over time. This is an important issue because human entitlements cannot be displaced and replaced with mere objects. Based on the survey outcomes and in-depth ethnographic observations, we argue that the state's land compensation scheme favoured the rich and in fact only increased social inequality by impoverishing the poor even further. Thus land-based compensation (short-term material compensation) schemes should not be thought of as a panacea that prevents impoverishment in displaced and vulnerable communities. To rehabilitate people's livelihoods, the policy should focus on social inclusion and community rebuilding as suggested in the IRR model.

Based on the Ranas Tharus experience, we argue that an essential pre-requisite for a credible resettlement policy is to have a fair compensation policy that equitably reaches different parts of society and generates social assistance. Our findings also indicate that any resettlement program should emphasise restoring people's livelihoods rather than short-term compensation based on material needs, and restoring social justice through fairer access to important livelihood assets. In particular, land is crucial for indigenous ethnic groups who are often the most socially, economically, and politically vulnerable in society. We posit that without sensitive consideration of the social divisions, compensation (economic in nature) will not be able to reconstruct the livelihoods of a displaced indigenous community. Secondly, unplanned or unfair compensation schemes will accelerate and deepen social inequalities.

Conservation practices in Nepal, like in most developing countries, have largely been influenced by Western ideas and assumptions—establishing protected areas (PAs). This Western-model PA has usually meant an increasing restriction on livelihood or economic activities, e.g., restriction of access to traditionally used resources, increased depredations on crops and livestock by wild animals, and the displacement of peoples from their traditional lands (Ghimire 1994; Hough 1988; Mehta and Kellert 1998; Skonhoft 1998). Since the 1970s, PAs have expanded dramatically in Nepal. Currently, it has 16 protected areas (including 11 buffer zones), covering almost 23% of its total surface area for conservation (DNPWC 2010), while 31% of its population still lives below the national poverty line (World Bank 2010).

Large-scale displacements continue to represent the major conservation strategy in the densely populated Terai region (Lam 2003; McLean and Straede 2003). For example, in 1973, the government of Nepal adopted strict nature preservation policies as the basis for establishing a protected area system. The relocation of people from the first national park, the Chitwan National Park, was at the expense of indigenous and local people, who then lost control over their lands, resources, and ways of life (Stevens 1997). The relocation program of the Chitwan National Park has resulted in the removal of 22,000 people since 1964 (McLean and Straede 2003). This was followed by a large resettlement program being implemented in the Shuklaphanta Wildlife Reserve (Sah 2002), and more

than 12,000 people were moved from the Koshi Tappu Wildlife Reserve (Lam 2003). In 1984, 15,000 families from 20 villages were resettled outside the extension area of the Badiya National Park (Stevens 1997). While the displacement was justified in the name of the public good, comprehensive resettlement policies focusing on livelihood reconstruction were virtually absent.

Nepal has a history of ethnic divisions where social, economic, and political exclusion have predominated (Pradhan and Shrestha 2005). Many studies have documented that since the 1950s, Nepal has experienced rapid transformation in landownership from the indigenous economically marginalised groups who had the weakest political standing to the more powerful immigrant groups (Caplan 1970; Gurnerate 2002). This situation closely corresponds to the local socio-economic context, particularly after a large number of immigrants led to disruptive social conflicts with the indigenous groups. Studies also show that protected areas often experience management conflicts, and these involve local ethnic groups who seldom receive adequate and fair compensation (McLean and Straede 2003). In this paper, we aim to assess the effectiveness of resettlement policies on livelihood restoration.

The plan of the paper is as follows. We briefly describe the establishment of the Shuklaphanta Wildlife Reserve and provide an overview of the resettlement program. We then discuss the survey methodology and empirical findings respectively. Finally, we integrate the qualitative, quantitative, and historical evidence to look at why the compensation (mainly land compensation) fails to reconstruct people's livelihoods.

## A BRIEF HISTORY OF THE SHUKLAPHANTA WILDLIFE RESERVE

### Creation and expansion of the wildlife reserve

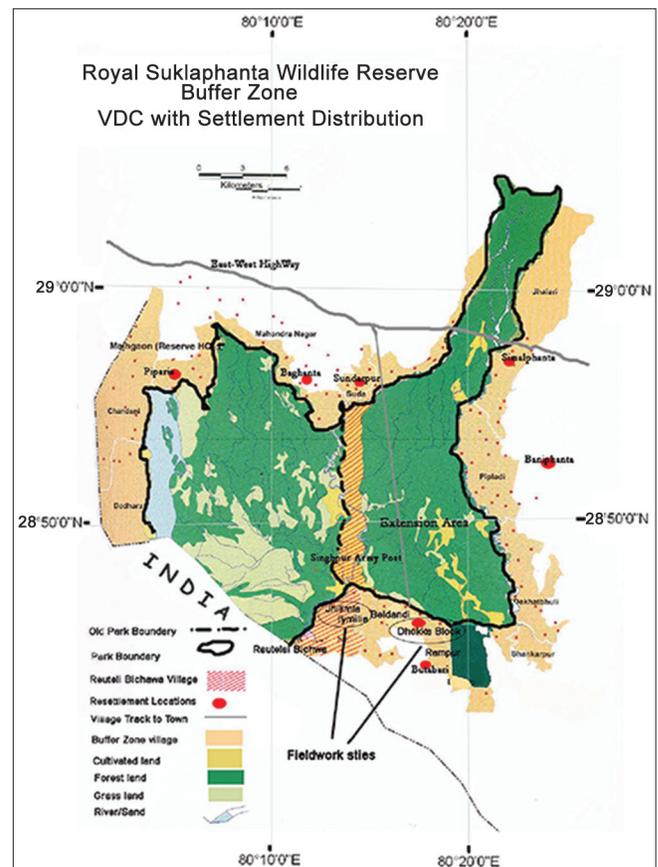
During the 1960s, influenced by the growing global conservation ideology and the King's special interest in establishing protected areas in Nepal, Shuklaphanta was first designated in 1969 as the Royal Sikar Reserve (closed to public shooting) in the western district of Nepal, Kanchanpur. Later in 1976, it was officially declared the Shuklaphanta Wildlife Reserve with a total area 155 sq. km as a response to the shrinkage of the forest area in Kanchanpur district. This had been caused by the rising population and demands on agricultural land and forest resources. The designation of the Shuklaphanta wildlife reserve is a typical fence-to-fence management model, which is part of the International Union for the Conservation of Nature and National Resources (IUCN) protected area categories, in which all settlements and human activities such as cultivation, fishing, and hunting are outlawed.

Although Shuklaphanta is relatively small in size<sup>1</sup>, it is ecologically important for many reasons. Shuklaphanta is home to the world's largest population of Swamp deer (2000 at last count), and its extensive grassland and swamp along with the tropical and sub-tropical forests has supported some endangered

species of tigers, elephants, and rhinoceroses. Moreover, a total of 349 bird species including six globally threatened species has been recorded in Shuklaphanta (Upadhyaya and Yonzon 2003). However, the ongoing development of new settlements adjoining Shuklaphanta and illegal settlements in the whole district have hindered preservation efforts. Activities such as logging, grazing, and poaching have seriously damaged the natural environment and wildlife habitats. Since the Shuklaphanta area was relatively small for wildlife protection, an extension of the Shuklaphanta Wildlife Reserve was mandated in 1981 to strengthen conservation of the remaining flora and fauna in the area (Bhattarai 2001). It was proposed to extend the reserve by 155 sq. km (Figure 1). This time, a total of 17 existing blocks of five VDCs inside the proposed extension area were affected.

### The land-based resettlement program

Considering the large-scale turmoil that would have resulted from a poorly implemented policy, the royal directives emphasised three principles: 1) all displaced families should be given land which they lost due to the extension of the Shuklaphanta wildlife reserve; 2) all compensation land should be cultivable; and 3) the social and cultural composition of displaced villagers should be maintained in the resettled areas (Bhattarai 2001: 270).



Source: Modified from DNPWC (2003)

**Figure 1**  
*Location of the Shuklaphanta Wildlife Reserve and fieldwork sites*

Figure 1 shows that seven places adjoining the Shuklaphanta Wildlife Reserve were designed for resettling affected families and one major consideration in allotting land was decided on the basis of land registration record. The state decided to provide a similar landholding size to affected families who had official land documents or some sort of record in survey field books. The remainder were identified as illegal occupations which could only receive 5–10 Kattas (0.035ha) of land. According to Bhattarai (2001), there was no appeal mechanism for these families against the decision of the state.

The wildlife reserve resettlement programme, which took nearly twenty years (since 1981) was completed in May 2002. As pointed out by Bhattarai (2001) this delay had serious implications for local livelihoods and the preservation of the forest. Rapid encroachment on the resettlement sites in the context of a corrupt bureaucracy and dramatic changes in the political environment after the 1990 People's Movement<sup>2</sup> only worsened the resettlement commission outcomes. Over a period of 20 years, the 18 commissions were unable to satisfactorily resolve the resettlement programme because it became virtually unenforceable.

It took almost 6 years to gather information on household composition and land distribution. During the 4<sup>th</sup> and 5<sup>th</sup> commissions, surveys were carried out but they failed to properly document each household's name and gender composition. Moreover, the surveys did not distinguish between landowners who were the original inhabitants or encroachers, which caused further difficulties in land allocation resulting in *ad hoc* distribution. At the same time, the delays encouraged encroachers to resettle in new areas that were already occupied and this created less incentive for the affected families to resettle. Also, many affected families often supported by political parties created resistance to resettling, and this resulted in further delays. Above all, the number of affected households increased three-fold in 11 years, from 1199 in 1987 (4<sup>th</sup> commission) to 3397 in 1998 (15<sup>th</sup> commission), which put further pressure on the forest areas. Finally, a total of 2108 ha of forest land was cleared to resettle 2249 households in seven locations. These households were categorised into four groups: (1) households with a proper landownership title (926); (2) households with registered land but without ownership title (100); (3) households confirmed as encroachers (954); and (4) households under investigation (169). The remaining households received no compensation; they were identified as settling in the Shuklaphanta after the announcement of the extension program (Pandey and Yonzon 2003).

In October 2001, the wildlife reserve authority decided to enforce the extension programme with the help of the army. This action was undertaken by the wildlife reserve management under the authority of the state. The remaining households inside the extension area were forced to evacuate as the army deployed elephants to destroy their houses. The evacuation was completed in May 2002 (Pandey and Yonzon 2003). However, the disputes continued even after the displacement was completed. As documented by Bhattarai (2001: 319), the major objective of the project was to remove local communities

from the reserve with little effort made to restore people's livelihoods properly. Instead of paying NPR 2000 to the affected families to relocate (as mentioned by Bhattarai), the authority should have implemented better support mechanisms to cushion them from the transition and the post-displacement trauma. As a result there was a steady deterioration in people's livelihoods, with increasing poverty and rising social strife in local communities.

### FIELDWORK ON THE RANAS

The fieldwork was motivated by the lack of evidence<sup>3</sup> concerning the socio-economic impacts of conservation on marginalised social groups. We adopted a multiple research methodology including household survey, focus group discussions, participant observation, and in-depth participant interviews. While the household survey was designed to capture a broader picture of the socio-economic conditions of the Rana society, conventional anthropological techniques of participant observation<sup>4</sup> and in-depth participant interviews were conducted to analyse more closely the daily livelihood practices of the Ranans, and the transformations in their society during the relocation and in the new settlement. Focus group discussions were also implemented to encourage local inhabitants to enumerate the relocation experience in their own words. Discussion group participants included local leaders, ex-government officials, and local people (both the Ranans and the hill migrants). Frequent discussions among locals also allowed us to verify the information under challenging circumstances such as in the absence of baseline data and the political insurgency. Furthermore, the information generated by the group discussions complemented the survey outcomes by providing greater insights into the Ranans' growing impoverishment.

Based on repeated consultations with the wildlife reserve authority and some local NGOs, the indigenous Ranans from the Rauteli Bichawa village were considered to be the most appropriate subjects of our study. The Rauteli Bichawa village, located in the western part of Kanchanpur district, was selected for several reasons, including its unique location and historical relevance. Before the establishment and extension of the wildlife reserve, the Rauteli Bichawa village overlapped with the Shuklaphanta area. It was the biggest park-affected village with more than 1,000 displaced households. After the forced displacement in 2001, Rauteli Bichawa became the smallest administrative village in Kanchanpur district with only three existing hamlets—Iymilia, Jhilmila, and Shivapur. It was the first settlement for the indigenous Ranans<sup>5</sup> and the first human settlement in Kanchanpur district; the Ranans originally settled in this particular forest frontier (KDDC 2002). The earliest settlements were Iymilia, Hariya, Bataya, and Bichawa, which were located in the southern part of the wildlife reserve and later extended to other areas such as the neighbouring district, Kailali. Today, the Ranans are found only in the Kanchanpur and Kailali districts in Nepal and in the states of Uttaranchal and Uttar Pradesh in India.

Historical circumstances made the Ranas one of the dominant population groups in Rauteli Bichawa village. According to the ex-secretary of the Rauteli Bichawa Village Development Committee Office, before the displacement, the total population of Rauteli Bichawa was 9,956 with 1,649 households in 2000 (2005 pers. comm.). Official data on the Rana population is not available for many reasons mainly because the Ranas are broadly classified as the ‘Tharu’ group<sup>6</sup>, and the Nepalese government does not publish national population census figures on the Tharu sub-groups. Secondly, some local data is in the hands of the Maoists, which are difficult to access. However, the information from the village office<sup>7</sup> and the outcomes of the focus group discussions suggest that the total number of Rana households was 350 in 2000, about 20% of the total households, and they were distributed unevenly in the nine hamlets (Table 1). After the forced displacement in 2001, the Rana population in Rauteli Bichawa declined to only 150 households, all of them settled in Iymilia and Jhimila. They were relocated to different villages; one of the biggest resettlement areas was the Dhokka Block, which was located about 4 km from the old Rauteli Bichawa village (Figure 1).

The Rauteli Bichawa Ranas had to endure many new challenges, and the ways in which they cope with them is central to our analysis. This provided us with the opportunity to probe the influence of forced displacement and transformation in landownership on the livelihoods of the indigenous Rana communities. Three field trips were conducted over a period of 18 months between 2004 and 2006. In particular, the visit in 2006 contributed to the current study in two substantial ways. First, the latest information on the Rana households enhanced the quality of our analysis on the relationships between resettlement and household livelihood status. Second, it helped us verify and share the main findings with local informants. The sample was restricted to a group of 72 households due to financial constraints and adverse socio-political conditions<sup>8</sup>. The displaced group selected for our study included 42 displaced Rana households from the two hamlets of the Dhokka Block—Rampur and Beldandi. The comparison group, comprising 30 Rana households who didn’t have to resettle, was selected from the two hamlets of the Rauteli Bichawa

village located near the periphery of the Shuklaphanta Wildlife Reserve—Iymilia and Jhimila (Figure 1).

The Rana households within each hamlet were selected randomly and both genders responded to the household level questionnaire. However, the survey does not allow us to examine the socioeconomic impact of displacement on other dominant ethnic and caste groups<sup>9</sup> in Kanchanpur district who were also affected by the extension of the Shuklaphanta Wildlife Reserve. Although we were unable to evaluate the overall impact of the relocation on the displaced people, it helped us identify the comparison group and the displaced Ranas to the best possible extent. Nepal is an ethnically diverse country, and the heterogeneity in the socioeconomic status across different ethnic groups makes it difficult to identify a closely matched control and treatment group at the baseline. Kanchanpur has experienced particularly substantial demographic changes due to the influx of hill migrants in the past 30 years (Pandey and Yonzon 2003).

In this study, the Ranas in both the comparison (non-displaced) and the treatment (displaced) group shared similar socio-economic characteristics. They all lived in the Rauteli Bichawa village before the displacement. They spoke the Rana language and practiced the same daily rituals. While the landholding sizes varied among the Ranas, particularly the Ranas from Ward 3 (Andaiya) being the richest, all Ranas were actively engaged in agriculture. Most of them were illiterate and experienced similar social changes such as the introduction of land reform policy, hill migration, and the creation of the Shuklaphanta Wildlife Reserve. The relatively homogeneous nature of the Rauteli Bichawa Ranas provides good matching criteria between the comparison (non-displaced) and the treatment (displaced) group.

However, the field survey data we collected prevents us from pursuing a rigorous impact evaluation<sup>10</sup> on many grounds. First, in the absence of baseline information we used recall methods to estimate the past landholding size for the Ranas who were relocated to the resettlement areas. This includes the possibility of exaggerating the reported size of land that they had actually owned before relocation due to the difficulties in remembering this with precision. Second, the small sample sizes (both the comparison and displaced group) are too small to provide a reliable estimate of the impact. Third, the matching criteria involve only a handful of ‘Rana traits’. Fourth and finally, the relocation process continued over a period of 20 years, which may possibly lead to some attribution effect. It was because during the same period the history of disputed land reforms—especially with the transformation of landownership from the hands of the indigenous Ranas to the migrants from the hills—is likely to account for a portion of the displaced Ranas’ growing impoverishment.

Nevertheless, we hope that the detailed qualitative data and the information available through focus group discussions makes our assessment informative and relevant to policy. As Woolcock (2009: 5) points out, “A truly rigorous evaluation is one that deploys the full arsenal of social sciences research tools (qualitative, quantitative and historical) as part of a

**Table 1**

***The land acquisition and the Ranas in Rauteli Bichawa village in 2000***

Village area	Hamlet	Total households	Rana households
Part of the extended Park area	III. Badani Kheda	42	25
	IV. Darak	170	126
	V. Andaiya	514	
	VI. Bhursa	193	27
	VII. Lalpani	29	0
	VIII. Radhapur	68	26
Outside the Park	IX. Iymilia	120	120
	X. Jhimila	279	26
	XI. Shivapur	234	0
Total		1,649	350

Source: Ex-Secretary of the Rauteli Bichawa Village Development Committee Office

strategy focused on achieving an optimal match between these methods (or combination of methods) and the *type* of problem to which the project (or policy) is responding”.

## EMPIRICAL FINDINGS

### Land compensation: the reality

Land compensation among the displaced population was based on the principle that all displaced families should be given cultivable land of the same quality they possessed before relocation, which they lost due to the extension of the Shuklaphanta wildlife reserve (Bhattarai 2001: 270). The new resettlement area of the Dhokka Block was originally covered with extensive dense forest. After the resettlement villages were built, the soil quality in the Dhokka Block was classified as Class II, which was not as good as that of the old Rauteli Bichawa's Class I quality, and was only suitable for terraced agriculture (KDDC 2002). However, to boost cultivation, a new irrigation canal was also built in the Dhokka Block.

The land compensation scheme under the resettlement program was carried out in two phases. The resettlement program started in 1988 and continued until 2001. In the first phase, about 200 households, including 60 Rana households, all from the Rauteli Bichawa village received land compensation from the government. In 2001, when the second phase of the resettlement program was administered, the remaining households from the seven hamlets (part of the Shuklaphanta Wildlife Reserve extension) of the Rauteli Bichawa village were forced to move out, and as a result another 100 households were relocated to the Dhokka Block, of which ten were Rana households.

Although the land compensation principle mandated that each household should receive the same size and quality of land they lost due to displacement, the outcome was far from what the government promised. As shown in Table 2, the average landholding size for the resettled Rana households dropped from 151.2 Kattas to 74.8 Kattas and 88.8 Kattas to 38.2 Kattas in Rampur and Beldandi respectively. The average difference of the landholding size is statistically significant at 1%. The Rana families who were categorised as illegal occupants because they did not have legal land registration were affected the most. They received on average only around 11% of their actual land (only 2–10 Kattas), whereas the households with proper registration had an average compensation rate around 56%. Moreover, almost one-third of the households with proper land registration became joint owners.

Household respondents were also asked about the amount of the produce (in kg). Local experience showed that in the 20 Kattas of land in the Dhokka Block, the Ranas produced 12 bags of 'dhan' (unhusked rice), which was less than half of that produced at Rauteli Bichawa (25 bags). As one bag was 70 kg, the total quantity of *dhan* from 20 Kattas (0.67 ha) of land in resettled and non-resettled areas was 840 kg and 1,750 kg respectively. After being milled, 20 Kattas of land could produce approximately 420 kg 'chamal' (husked rice) in the

**Table 2**  
**Land compensation**

	Present land holding (Kattas)		Pre-resettlement land holding (Kattas)	
	Mean	SD	Mean	SD
<b>Comparison</b>				
Iymilia	59.1	53.1		
Jhimila	24.1	14.3		
<b>Resettled</b>				
Rampur	74.8	49.2	151.2	94.2
Beldandi	38.2	23.0	88.8	74.2

Source: Household survey 2005

Note: Mean land (measured in Kattas) holding size is significantly different for the resettled households (at 1% significance level)

resettled area and 875 kg in the non-resettled area.<sup>11</sup> A few Rampur Ranans even pointed out that the quantity of rice in the Dhokka Block was five times less than in the hamlets of the Rauteli Bichawa village that had not been displaced. Rather than taking into account a few exceptional cases, it seemed more reasonable to accept the majority Ranans' experiences.<sup>12</sup> The average productivity rate of the resettled households was about 21 kg per Katta, which was less than half of what the households in the Rauteli Bichawa village produced on average. The mean difference of the productivity rate is found to be statistically significant at 1%.

According to the resettled Ranans, the land quality in the Dhokka Block was poor. The lower water storage capacity of the soil caused difficulties in rice planting. Field visits were conducted in the rice fields in the hamlets of the Rauteli Bichawa village and in the Dhokka Block. Most of the comparison group Ranans mentioned that the soil could retain water for almost one week so they had plenty of time in which to transplant rice. However, the resettled Ranans pointed out that after ploughing and irrigating, they had to plant rice immediately because the soil would be dry again within a few hours. On average, they had to spend double the time in ploughing the same size of land than before. The implication was that more farming work led to decreased opportunities and motivation to visit and talk with their relatives and friends. One Rana respondent commented on his life that "I feel very lonely because no one in here wants to talk. People are in fact friendly in here but we all need to work hard, worry about our own lives so we don't have a chance to talk to each other."

Ramesh Rana's story was another example illustrating the difficulty in planting in the resettled area. He owned nearly 80 Kattas of land and the major labourers were Ramesh, his wife, and one young working boy hired by the family for help. It was mid-June 2005 when rice planting began. The temperature rose to 45°C due to a late monsoon. Every morning, Ramesh went to plough the land with the boy for the whole day. His wife joined them in the early evening when the temperature fell. Their dinner was often late because much work still remained to be done. The wife did not have time to make dinner; instead she had to cut rice seedlings and tie them into small bunches for rice transplanting. Ramesh estimated that they needed about

1 month to finish rice planting. After 3 days, the couple transplanted their rice in 1 whole day with the help of their eldest son. Unfortunately, half the rice seedlings started to die after 1-2 days. This may have been caused due to bad weather, bad soil, or the delay in irrigation and transplanting. Ramesh admitted that because labour was in such short supply, the crop produced was unsatisfactory.

### LIVELIHOOD CHANGES AND COPING STRATEGY

Before the extension of the Shuklaphanta, agriculture was the Ranas' main source of livelihood. Most of the Ranas were landowners cultivating their own land. A sizable portion of them became landless after resettlement. This caused a significant change in their livelihood choices. We found that almost 27% of the displaced Ranas started agricultural work on others' land on short-term contracts to meet their economic needs. According to their statements, difficulties with their current livelihoods have been the biggest change in their lives.

Households were also asked about how they coped with the growing impoverishment and social strife. The coping strategies for the Rauteli Bichawa Ranas were mainly cutting down on their expenses, women working harder and sending household members to India for work. For the resettled Ranas, working for others has been the most common coping mechanism. Almost one-fifth of the Rana respondents said that they were forced to seek temporary loans to meet their daily expenses.

To get a better picture of the increasing vulnerabilities after displacement, the household respondents were also asked, "How many months do you have enough food for?" The average food security for the comparison group was 9.5 months, 9.1 months for those who received respectable compensation, and only 5.6 months for those who failed to provide any land registration (Table 3). Because of the higher variation in the landholding sizes, we also looked at the level of food security per unit of land (in Kattas) they owned. Once measured this way, the worst affected Rana households had average food security for one more day compared to the other resettled Ranas. This indicates two important things. First, the resettled Ranas have significantly less food security when compared to the similarly-sized land parcels owning Ranas who were not displaced. This directly points to the low productivity of the new settlement area. Second, the resettled

Ranas with very small plots of land relied on food sources other than cultivating their own land. Upon asked how satisfied they were with their lives, most of the Ranas from the resettlement areas said they were unhappy because of the poor quality of soil and hence not having enough food.

### LIFE IN THE RESETTLEMENT VILLAGES

Out of the 42 displaced Rana households, more than 80% of them expressed negative opinions concerning their new homes in the Dhokka Block. They faced a number of difficulties in the new settlements, particularly the poor quality of the land which resulted in lack of food meaning they had to work harder thus weakening their social relations. They often described the new place in terms of: "Nobody will like it" (Lam 2012).

The new place was also perceived to be narrow (*Saaguro in Nepali*) by many Dhokka Block Ranas. The term '*Thaau Saaguro*' referred to barriers in social interactions rather than spatial limitations. The place especially became narrow because there were limited social interactions among the Dhokka Block Ranas. Instead of socialising with others, most of them were forced to keep working in the field for the whole day and preferred to stay at home after the day's hard work. Social interactions among the Ranas became less frequent than before. The immediate outcome was that most Ranas felt lonely in the Dhokka Block. We can therefore interpret their word *Saaguro* as being similar to the English word 'lonely'. This social outcome was not what the policy-makers had envisaged; they had intended the resettlement area to minimise the social impacts of displacement. The aim was to maintain their community networks and cultures. Therefore, affected communities sharing the same cultural background were resettled in the same area; this was particularly the case in the Rampur area and the Rana communities from the Rauteli Bichawa village, who were grouped together based on their shared cultural history.<sup>13</sup>

Why, then, did most of the Dhokka Block Ranas feel lonely in their new abode? In order to answer this question, a closer look at their social networks might be helpful. Our findings show that almost half of the respondents did not have any relatives or friends living around them in contrast to the families from other social groups. Although the level of loss in social networks due to displacement among the displaced Ranas differed, both groups felt the same kind of loneliness (92%). For example, Jilabati Rana had few friends around before the relocation, but after displacement most of her friends had to move to other villages because of the extension program. She said:

I am very unhappy because we Ranas are no more living in the same place. If they are around me, I will feel better. Nowadays, I only stay on my land and seldom go outside. In my old place, I always spent time with my friends. Now I find it very hard having to spend time in here.

Bhagora Rana did not have friends and relatives living close by and said, "Without any friends, most of time I only work in the field and stay at home. Life is lonely." One of the effects

**Table 3**  
**Food security**

	Months	Days per Katta		
		Mean	Min	Max
<b>Comparison</b>	9.5	4.2	0.7	10.8
<b>Resettled</b>				
Registered land	9.1	2.2	0.6	5.76
Unregistered land	5.6	3.4	0.9	7.2

Source: Household survey 2005

Note: The question on food security was originally asked as "How many months you have enough food for?" We created another variable that measures number of days a household has enough food for given the amount of land it owns

of the dislocation is that it can often change interpersonal interactions in a latent and silent way. Even having relatives and friends living close by cannot guarantee the maintenance of the Rana community solidarity because the previous interaction patterns were lost after the dislocation.

The economic hardships were inflated by long separations from their family members as long distances made it virtually impossible for them to visit each other. For example, Roson Rana was a 65 years old. His family was relocated from the Rauteli Bichawa village four years ago and was told he would receive ten Kattas of land in Beldandi as compensation, but the government did not keep its promise. In Beldandi, he lived alone on his two Kattas of land and his son’s family moved to another village to tenant land in order to get work. Every night he felt extremely lonely without his family and friends. He said, “I had land, big house and my family inside the wildlife reserve. I have never thought before that my life will become like this one day.” Similarly, Bann Rana lived alone in Beldandi. He totally relied on help from his grandson who worked in another village. He never visited his grandson’s family because he could not afford to pay for the bus ticket. Only the grandson visited him once or twice a year to bring him some rice. Another problem that the Beldandi Ranas faced was that they found it difficult to communicate with their new hill neighbours. Some Ranas could not speak Nepali and frequently the result was social isolation.

### OVERALL EFFECT

To determine the overall welfare impact we follow a simple regression-based approach. The model (Equation 1) determines the single difference of the welfare outcomes between the resettlers and the comparison group based on the post-displacement observations we made. The mean comparison approach is appropriate in our case because the resettled group can be identified based on observables. We estimate the following regression model:

$$y = \beta \text{ Resettlers} + X'\gamma + \varepsilon \tag{1}$$

The dependent variable in Equation 1 is the welfare indicator measured as food security in the future measured in months. As an alternative to this, we also use number of days for which a household has sufficient food per Kattas (unit of land). Defined this way, it records the future food security as well as the productivity of the land. With a similar sized landholding, food security over a longer period implies better quality of land, based on the evidence that food consumption habits are similar across the Rana households.<sup>14</sup>

We decided not to use productivity (measured as crop yield) as the dependent variable because it is an estimation based on the focus group discussions. Despite the fact that the data on food security suffers from self-reporting bias, it directly reflects the availability of food after the resettlement, and their understanding of what food sufficiency means at the local level. In addition, the Rana respondents did not include incomes from non-agricultural activities while answering the food security question. They only considered family size and total crop yield from their own cultivation. Together with this, the food security indicates the productivity and family size as well.

In Table 4, we provide regression outcomes on food security. We use food security as a dependent variable measured in two ways: the number of months for which they have enough food and the number of days they have enough food per landholding size (in Kattas). The displaced households are found to have less food security irrespective of the way it is measured. The outcome is robust and statistically significant in most cases. However, food security when measured as the number of days not having enough food per landholding size, the regression models show a higher correlation coefficient. Household size yields a negative

**Table 4**  
*Regression outcomes on food security*

	Dependent variable: food security (months)			Dependent variable: food security (days per Katta)		
	Base	Base plus household control	Restricted sample	Base	Base plus household control	Restricted sample
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Resettled (Yes=1)</b>	-1.01 (0.71)	-1.71* (0.73)	-2.00* (0.83)	-4.40** (1.35)	-5.51*** (1.29)	-4.42** (1.28)
<b>Log age</b>		0 (0.56)	-0.43 (1.47)		-1.07 (1.51)	-5.25 (2.70)
<b>Gender (Female=1)</b>		1.55* (0.74)	1.28 (0.88)		0.92 (1.40)	0.58 (1.62)
<b>Household members</b>		-0.08 (0.05)	-0.12 (0.07)		-0.41*** (0.10)	-0.41*** (0.10)
<b>Land holding (in katta)</b>		0.03** (0.01)	0.03*** (0.01)			
<b>Livestock (numbers)</b>		-0.01 (0.11)	0.32 (0.22)		-0.03 (0.16)	0.53 (0.50)
<b>Constant</b>	9.46*** (0.55)	8.89*** (2.28)	9.81 (5.43)	10.44*** (1.18)	19.13** (6.17)	33.25** (10.45)
<b>Observations</b>	70	67	53	70	67	53
<b>R-square</b>	0.03	0.2	0.24	0.15	0.37	0.44

\*=coefficients significant at 10%  
 \*\*=coefficients significant at 5%  
 \*\*\*coefficients significant at 1%

Notes: Restricted sample implies to only those households who resettled in 2001. Robust standard errors are given within parenthesis.

and statistically significant coefficient when food security is measured in terms of days food available per land unit. This suggests that large households are more vulnerable to food insecurity after controlling for land holding size and other household characteristics.

### **DISCUSSION: WHY DID LAND COMPENSATION FAIL TO RESTORE LIVELIHOODS?**

Our empirical findings have shown that by and large the land-based compensation policy has failed in preventing impoverishment as well as in restoring social justice in the Rana society. The poor land quality in the new settlements reduced the food security for those who could have maintained a better living standard in their village before they were forced to move. Furthermore the households with no land title became landless (with barely 2 Kattas of land just to construct a home). In this section, we evaluate these empirical outcomes in light of the contemporary history of land reform and socio-political movements in Nepal.

In Nepal, land was the property of the state and this type of land was known as *Raikar*, except *Kipat* land which belonged only to some hill tribes like Limbus, Rais, Tamangs (Regmi 1999). However, *Kipat* tenure was abolished in 1963 and incorporated into the *Raikar* tenure system (Regmi 1999). In Kanchanpur, land ownership was considered to be part of the *Raikar* system. Under this state-as-landlord system, the government had absolute power to grant and confiscate land for grantees and could appropriate land for its own needs (Caplan 1970). Before the 1950s, land used to be granted by the state in an attempt to buy favour. All *Raikar* users had only the right to use land but not the right to alienate any part of it, or to sell it or mortgage it. Historically, the state also granted authority to the local elites to decentralise political power. These local elites became the landlords, and local communities perceived them to be the authority instead of the state. As pointed out in the focus group discussions, in the past they had to register their land with the approval of the big Rana landlord.

Since the 1950s, however, a series of land reforms were introduced where the state wanted to regain its ownership control at the local level. Thus, one of the major implications of the land reform programs was to centralise state control over local land resources (Praff-Czarnecka 1997: 437; Sharma 1997: 479). Our local informants pointed out that since the 1960s, in the Rauteli Bichawa village, the local Ranas started to deal directly with the state instead of the Rana landlords regarding land issues. Based on the life histories collected from the Rauteli Bichawa villagers, many state officials came to the Rauteli Bichawa village to map their land and establish new settlements. Consequently, the state officials visited the Rauteli Bichawa village in the 1970s and 1980s, and the goal of state intervention was to diminish local autonomy by removing the concept of landlords from the Rana society.

The Ranas, like many traditional societies, failed to perceive the modern concept of landownership as an exercise in land registration documents. For them, the concept of landownership

was more about actual land use practices. Guneratne (1996, 2002) explains that the concept of obtaining legal land documents to secure ownership does not exist among many tribal or ethnic communities, particularly among those from the lowland Terai region of Kanchanpur. In the focus group discussions, many Rana informants mentioned that they had been cultivating their land for generations so they never feared losing it. This, however, put the indigenous Rana population into the weak position of not being able to protect their ancestral land, particularly those who had small landholdings.

The story of Jekur Rana provides an example. The Jekur Rana family was one of the displaced families from the Andaiya hamlet of the Rauteli Bichawa village. Jekur Rana had 100 Kattas of ancestral land, which had been used for more than 100 years as the main source of livelihood through subsistence agriculture. However, his land was not registered officially. According to him, the older generations had no idea about the land registration procedure. Moreover, when government officials came to their village on one occasion, they only talked to the rich and educated people, not to Jekur Rana's family. As a result, only the rich and influential families, including some wealthy Ranas, registered their land with the government. In 2001, the family of Jekur Rana was forced to move out from the extension area of the Shuklaphanta Wildlife Reserve. Since he did not possess any legal registration, Jekur Rana's family received only two Kattas in order to build a shelter in the new resettlement area in accordance with his inhabitant status. Jekur Rana pleaded with the Park authority to reassess his case many times but without success. There were at least ten other Rana families in the Dhokka Block in a situation similar to that of Jekur Rana's family.

Focus group discussions with both resettled and non-resettled Ranas found that the Ranas who had close relations with the local elites and owned large plots of land obtained official documents and thus suffered less from the relocation. As our data shows, a majority of the displaced Ranas receiving an almost equivalent size of their registered land were rich, owning more than 200 Kattas of land inside the Shuklaphanta Wildlife Reserve. Thus, the design of the state policy of the land compensation scheme apparently favoured the rich and it only increased social inequality by impoverishing the poor even further.

Since the 1950s, the state has played a leading role in the transformation of landownership from the hands of the indigenous Ranas to the migrants from the hills (Pahaaris). This was administered through a series of land reform policies and state-sponsored resettlement programs in Kanchanpur, particularly in the Rauteli Bichawa village and in the Terai region as a whole. The migrants were mainly higher caste people, including Brahmins and Chhetris. They were mostly literate and had closer ties with the state officials, such as sharing the same language (ability to speak and write in Nepali) and culture. This made access to land resources and assistance from the state easier for them, and in turn gave them greater control over the land.

As found in the focus group discussions, this was apparently another major reason why some Ranas could not register their land properly and even lost most of their land to the migrants.

Many Ranas complained that in many instances the disputes over land between them and the migrants were resolved in favour of the migrants. As in matters regarding the registration and transaction of the land, it required good communication skills with the state officials verbally and literally. There were also complaints against the migrants that they took advantage of the illiterate Ranas and confiscated their land by providing them with flawed contracts. For example, one displaced Rana stated that without the informed consent and authorisation of his grandfather, his father signed a land transaction document to a migrant state official. However, when his grandfather contested it, the land was already a property of the state official.

As our qualitative evidence suggests, Nepal's land compensation policy has resulted in the disproportionate distribution of land where the poor have come out even worse than before. This has serious consequences for the social deprivation of marginalised groups who have less political clout. This also indicates the necessity of a land compensation framework that must overcome the social divisions and political economy of past land settlement policies. Without thoughtfully considering the political, economic, and cultural contexts, land-based compensation schemes may only serve as a mechanism to further accelerate social inequality and social strife among different groups.

## CONCLUSIONS

In this paper, we used a cross-disciplinary approach to assess the compensation policy's impact on the welfare of an indigenous community in Nepal that was displaced. We surveyed the indigenous Ranas who were displaced from the Rauteli Bichawa village due to the expansion of the Shuklaphanta Wildlife Reserve in the district of Kanchanpur. The survey outcomes show that their compensation was inappropriate both in terms of the quality and size of land that was allotted to them upon resettlement. It also indicates a disproportionate distribution of land favouring the rich. Overall, it led to further impoverishment of the displaced community where the poorest suffered the most.

First, the land compensation scheme adopted by the state authority in Kanchanpur failed to meet the prerequisites for a well designed land compensation scheme as outlined in Cernea's (1997) IRR model. The poor quality and smaller size of compensated land can by themselves generate a decline in living standards. Second, the immediate effect of dislocation was the loss of the place-based social networks, which also had an adverse impact on the local livelihoods. Thus, our study invokes a critical question that policy makers must rethink: can compensation-based (mainly economic in nature) resettlement programs truly mitigate livelihood loss and rebuild it for displaced communities in a sustainable way? Our qualitative evidence goes beyond this. A closer look at the contemporary history of land reform and land settlement policies in Nepal reveals that the Ranas have been socially excluded for decades, and the present land compensation scheme only compounded the already prevalent social injustice.

The most important critique of displacement has been the injustice involved in the involuntary removal of marginalised peoples from their homes and lands (Chatty Colchester 2002; Agrawal and Redford 2006, 2009). Our in-depth cross-disciplinary evidence indicates the necessity of a socially inclusive and carefully designed land compensation policy. We suggest that the resettlement policy should pay more attention to the marginalised people who often fail to provide sufficient documented evidence of property rights (deed, etc.) due to generations-old cultural values.

A carefully designed compensatory policy may still not guarantee social justice by just including a fair distribution of land. Since the adverse impacts of displacement are likely to negatively affect the poor at a higher rate (Heming and Rees 2000), a credible next step could be to provide a generalised safety net in addition to fair, as suggested by Kanbur (2002). Despite the fact that illiteracy was recognised by the indigenous Ranas as the major cause of their impoverishment, among the present generation Ranas only a handful of them send their children to schools. This clearly suggests that implementing a good quality education system for the displaced could serve as a generalised safety net that can work well. To sum up, we argue that the core concept of the IRR model—livelihood rehabilitation and reconstruction through assisting indigenous people build social and physical capital for sustainable development—should be seriously considered and implement in all resettlement policies.

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## NOTES

1. The largest protected area in Nepal is Annapurna Conservation Area (7,629 sq. km) while the smallest one is Rara National Park (106 sq. km.) (DNPWC 2008).
2. The 1990 People's Movement (*Jana Andolan*) was a multi-party movement in Nepal. It brought the absolute monarchy to an end, eliminated the Panchayat system and marked the beginning of constitutional democracy (see Hutt 2004). In 2006, following the restoration of absolute monarchy in Nepal, the Loktantra Andolan was launched, which once again illustrated a unity between various political parties leading some to brand it Jana Andolan II.
3. Although displacement is one of the most common conservation practices in protected areas in Nepal's Terai region, its economic and social impacts have not been well documented (Sah 2002; Lam 2003; McLean and Straede 2003). Only McLean and Straede (2003) and Lam (2003) used an anthropological approach to evaluate the social impacts of displacement on local communities. However, these studies do not touch on the core issue—how does this displacement influence local livelihoods and how do the locals react to such changes? In addition, the only comprehensive study

that explored the complex relationship between Tharus and Chitwan National Park were done by Muller-Boker (1999). Studies on the Ranas and Shuklaphanta are almost nil.

4. The first author conducted fieldwork over a period of 15 months. During this time, she actively observed and participated in the Rana daily social life including daily conversations, farming activities, festival celebrations, marriage ceremonies, rituals, and collecting forest resources.
5. Despite the fact that written histories on the origin of the Ranas in Kanchanpur are very few, their past has been recorded in local oral traditions. The Rauteli Bichawa Ranas claimed that they originated in the state of Rajasthan in India. Their descendants are nowadays known as the Rana Tharus. Most Ranas refuse to be labeled 'Tharus' and identify themselves only as Ranas (Lam 2011).
6. The argument about the exact number of people is an issue of debate between the state and ethnic groups in Nepal. Gaige (1975) has analysed this very closely. Some ethnographic studies have also shown that increasing the population is often a strategy that many ethnic groups use to increase their political influence (Fisher 2001; Guneratne 2002).
7. The secretary was a village local and therefore familiar with the composition of the local population.
8. The research was carried out when conflicts between the Maoists and Nepalese government were endemic. The armed Maoists would regularly patrol the village (particularly in Dhokka Block), and one of their strategies was to foment frequent strikes. The researcher was interrogated several times by Maoists and their permission from the Maoists was needed to conduct the research.
9. According to the 2001 census data, the caste and ethnic distribution of the population in Kanchanpur were as follows: Chhetri (30%), Tharu (20%), Brahmin (17%), Dalits (14%), Thakuri (5%), and others (14%).
10. There is an ongoing debate among social scientists (notably among economists) whether to pursue a rigorous impact evaluation for assessment purposes. Proponents of such rigorous techniques believe that they help establish the true impact of policies, thus increasing the policy relevance of research (Angrist and Pischke 2010; Imbens 2010). Others have argued that high demands for rigor are often correlated with lack of information on the heterogeneity of the impact and missing long-term effects (Acemoglu 2010; Deaton 2010).
11. The estimate for rice productivity was based on the normal agricultural year, i.e., did not include serious crop failure due to natural disasters such as floods or drought.
12. Those Rampur Ranas who were interviewed had suffered serious changes in their livelihoods after relocation, so they may tend to overstate their hardship to outsiders in order to gain more sympathy.
13. The situation in Beldandi was different in that this area was mainly designated for resettling those affected landless families including the Ranas and other caste groups. There was no consideration of cultural factors. As a result, a few Rana households were sparsely settled and they were surrounded by the hill population.
14. According to the field observation, the Rana diet has less variety and mostly consists of plain rice. A standard dish is served with very little curry and large amounts of rice. On average, every adult Rana male could eat at least 1.5 kg of rice per day.

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