

Full Length Research Paper

Local Perspectives on Benefits of an Integrated Conservation and Development Project: The Annapurna Conservation Area in Nepal

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Integrated conservation and development projects (ICDPs) have recently been criticized for their ignorance of community heterogeneity, mismatch between project output and expectations, and lack of connection between conservation and development initiatives. Using Nepal's Annapurna Conservation Area Project (ACAP) as an example this paper examined how perceived benefits from one ICDP varied between stakeholder groups and how local resources were allocated. Data collection for this research was conducted through 96 interviews with three groups, that is, ICDP staff, local management committee members, and marginalized peoples. Results showed that the programs introduced by ACAP and their resource allocations were not perceived as having a fair and equitable impact across all households, community, and regions within the protected area. Moreover, there was a perceived discrepancy between ACAP allocation of resources in certain sectors, local residents' expectations from ACAP and outcomes of the funding, that is, conservation vs. tourism. Future research is suggested for collecting more data from additional residents, communities and with other ICDPs.

Key words: Annapurna Conservation Area, conservation, development, integrated conservation and development project, marginal groups.

INTRODUCTION

Within the framework of community-based conservation, the integrated conservation and development project (ICDP) has been adopted by various national and international organizations to achieve more sustainable

and equitable governance of protected areas. These projects combine the dual agenda of conservation and development and are based on the basic assumption that local people are more likely to develop favorable attitudes

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toward conservation if their own livelihood needs have been met. Due to the need to reduce the pressure on natural resources development, options such as tourism, roads, and infrastructure are frequently offered as compensation for benefits restricted to local residents in protected areas (Hughes and Flintan 2001; Wells et al., 2004; Zinda et al., 2014).

When first initiated, ICDPs were considered a win-win situation for all due to their ability to combine three important aspects of sustainable development: biodiversity conservation, public participation, and economic development of the rural poor (McShane and Newby, 2004). As the popularity of ICDPs soared in the 1980s and 1990s, these projects were highly criticized. Although considered a better option to manage and oversee protected areas, biologists today have accused ICDPs of giving more priority to people and their well-being over conservation (Oates, 1999; Terborgh, 1999; Wilshusen et al., 2002). In their review of ICDPs, Hughes and Flintan (2001), observed how the construction of roads as a development initiative has resulted in land clearing and fragmentation, increases in migration, and illegal trade which has posed additional demands on natural resources. Past literature has also been critical toward ICDP's simplification and presentation of communities as spatial units comprised of a small population with shared norms and identities (Agrawal and Gibson, 1999; Bryant and Bailey, 1997; Gupte, 2004; Robbins, 2012). The issue of a heterogeneous community becomes even stronger in developing countries due to well-defined differences based on wealth, gender, caste, ethnicity, age, etc., which have implications for how natural resources are appropriated, used, regulated and controlled by various entities.

Power and authority largely determine patterns of nature-society interactions and control over benefits (Nightingale and Ojha, 2013). In the case of ICDPs, many protected areas in developing countries use tourism as a development strategy to benefit local people. But socio-economic pressures have led bigger trekking agencies and tourism entrepreneurs living outside the protected area to reap all the economic benefits, leaving the local communities in poverty (Karanth and Nepal, 2012; Spiteri and Nepal, 2008). In such cases, ICDPs not only reinforced the already existing socio-economic differences within a protected area but also heightened differences between different groups. Unequal distribution of benefits has also resulted in decreased support for conservation activities (Mbaiwa and Stronza, 2011; Robbins, 2012; Wells et al., 1992; Young, 2003).

This paper will examine the consequences of integrated conservation and development efforts in the Annapurna Conservation Area Project (ACAP). Launched in 1985, the ACAP represents one of the earliest ICDPs in the developing world (Baral et al., 2007; Wells, 1994). Researchers have highlighted the need to understand the relationships between different groups of

people in a community to better understand natural resource use and implications for conservation (Waylen et al., 2013).

Understanding the perceived fairness of distribution of the costs and benefits of community-based conservation initiatives are necessary to understand the role and effectiveness of ICDPs (Sommerville et al., 2010). Therefore, this paper has two main objectives: 1) to identify the perceived benefits of one ICDP, from the perspectives of project staff, management committee members, and marginal household members (women, lower caste Dalits and poor) in the Annapurna Conservation Area (ACA); 2) to evaluate the distribution of resources, e.g., funding, programs and services to determine if they are pro-conservation or pro-development.

METHODS

Study Site: Annapurna Conservation Area (ACA)

Nepal established its first national park in Chitwan in 1976 in the southern subtropical region. This and the other national parks that followed were controlled centrally by the State and with support from Nepal's Army. The presence of army personnel, restrictions to customary rights of indigenous groups, and relocation of settlements from park grounds subsequent to park designation resulted in antagonistic local attitudes toward wildlife and park management (Nepal and Weber 1993). Therefore, when it was determined that the Annapurna region could potentially be a national park, an alternative model of conservation was sought in which resident communities would have a role to play in ensuring its long-term viability. The National Trust for Nature Conservation (NTNC), formerly known as the King Mahendra Trust for Nature Conservation, was established in 1982 as an autonomous NGO. This Trust was legally mandated to manage the ACA, an arrangement that was new to the country at that time, where a local NGO and not a State agency, was given the authority to manage conservation and development projects in such a large contiguous area (see Hough and Sherpa 1989 for more on ACA's inception). A pilot project, the Annapurna Conservation Area Project (ACAP), was launched in one Village Development Committee (VDC) in 1986, which was expanded to 16 VDCs in 1990. A VDC is the lowest political unit; each VDC usually consists of nine wards or sub-villages under it. After a four-year review of the project by the Department of National Parks and Wildlife Conservation, the ACA was officially designated as a conservation area in 1992. Currently ACAP manages 57 VDCs under seven-unit conservation offices (UCOs).

Adopting a decentralized decision-making structure, all of ACAP's programs are carried out through management committees that consist of local residents. The Conservation Area Management Committee (CAMC) is the local institution under ACAP required by the 1996 Conservation Area Management Regulation and legally recognized under the Conservation Area Management Act. The Act stated that each VDC within ACA should have one CAMC to manage all the conservation and development programs. Under the CAMC there are many different management subcommittees such as tourism management, drinking water, kerosene depot, school, health post, etc.

The ACA is the largest protected area of Nepal, situated in the north-central part of the country. This 7,629 km² protected area is rich in biodiversity and is home to 1,233 plant species, 23 species of amphibians, 40 species of reptiles, 488 species of birds, and 102

Table 1. Sampling frame, size, gender, and interview length for interviewed groups.

Group	Sample size	Sampling frame	Gender		Avg. length of interview)
			Male	Female	
ACAP staff	8	Entire ACAP staff	8	0	45 min
Management committee	44	Membership list obtained from ACAP	19	25	45 min
Marginal group	44	Household list obtained from the VDC office	15	29	30 min

species of mammals (NTNC 2009). It is home to roughly 120,000 people belonging to diverse ethnic, cultural, and linguistic groups (NTNC, 2009). Gurung is the dominant ethnic group followed by Thakali, Bhotia, Magar, Brahmin, Chhetri, Kami, Damai and Sarki; the latter three are collectively referred to as the untouchables or Dalits. ACA is a popular tourist destination, visited by more than 60% of the country's trekkers; therefore, tourism is an important source of income for residents living on popular trekking routes. Households away from the main trekking routes depend on subsistence agriculture, livestock herding and overseas remittances. Ghandruk's VDC was selected as a case study since ACAP has invested a lot of time and money in the region. Ghandruk is a popular tourism hotspot not only for international but national tourists as well. Ghandruk is situated at 2000 m above the Modi River on a south-facing slope, and offers magnificent views of mountains like Annapurna South, Machhapurchre, Hiuchuli, and Gangapurna. The VDC consists of 945 households with a population of 5080, out of which approximately half are men and half women; 48% of the residents are Gurungs, 30% Dalits, 13% Brahmins/Chhetris, and others.

Data collection

Data were collected during field work conducted between August and October 2010, using semi-structured interviews with ACAP staff, management committee members, and marginal peoples, hereinafter referred to as the management group and marginal group respectively. Using purposive sampling, 44 members of five different management committees were chosen for interviews. These committees were: conservation area management committee (CAMC), tourism management subcommittee (TMSC), electricity management subcommittee (EMSC), *Mul Ama Samuha* (Main Mothers Group; MAS) and *Ward Ama Samuha* (Ward Mothers Group; WAS). The 44 individuals were chosen to include members in leadership positions and any marginal individuals present in management committees. Although an effort was made to ensure an equal number of individuals from each ward and each committee, it was not possible due to either the group being inactive (in the case of WAS), or in the majority of cases, due to the unavailability of its members (e.g., left the group or the village for better opportunities and their replacement had not been appointed).

The second subgroup consisted of 44 household members representing the marginal group. Participants were purposively chosen to include women, lower caste, and landless residents. The sample consisted of 15 males and 29 females. The number of women in the sample was higher for two reasons: first, gender was a criterion for choosing the sample; and second, in many marginal households the men had been involved in international labor migration to Middle Eastern countries and only women were available for interviews.

The same questionnaire was used for the management and marginal groups. The questionnaire consisted of both close and open-ended questions. The close-ended questions were used to measure socio-economic information about the respondents, e.g.,

age, caste, gender, birthplace, education, and occupation. The open-ended questions focused on people's perspectives on the benefits of ACAP, distribution of benefits, relationships with ACAP staff, role of ACAP in their area, expectations from, and future prospects of ACAP.

Informal conversations with many residents aided in providing insight to the themes that emerged from the interviews. Secondary data were also obtained from study of ACAP's management plan, budget, CAMC operation plan, Ghandruk UCO's annual report, etc. With respect to interviews with ACAP staff, these included the entire eight field staff present in Ghandruk. The staff were the officer in charge (OIC), six program officers representing specific sectors (that is, tourism, alternative energy, agriculture, natural resource management, environmental education, community development), and the accountant responsible for financial matters. Semi-structured interviews were also conducted with ACAP's director in Pokhara and the program officer for the mountain region at NTNC's headquarters in Kathmandu. The interviews consisted of open-ended questions that focused on topics related to the duties of the staff, specific program details, ACAP's mandates and priorities, local benefits and its distribution, sources of funding, ACAP's efforts to include marginal groups, rapport between project staff and local residents, and future prospects. Table 1 show more specific information on interview length, sample size and gender breakdown for each group. As the primary researcher in this study was from Nepal, all interviews were conducted in Nepali without the use of an interpreter. The interviews were recorded (with the consent of the participants), translated and transcribed. The transcript was coded using inductive coding to identify themes, and data were categorized according to these themes. To ensure accuracy during translation, quotes and words in Nepali were used followed by their translation in parentheses. Most respondents' quotes provided in the paper were kept anonymous.

RESULTS

Perceived benefits of ACAP

The results reported here are based on all 96 semi-structured interviews. ACAP staff, and the management and marginal group members were asked to identify the benefits that ACAP has delivered in the region. The groups differed in several areas in how they perceived these benefits (Table 2). These benefits are based on the groups' perception which may differ from on the ground facts, e.g., actual funds distributed. However, how they view their relationship with the stakeholder groups within the ACA is critical in the future relationship they have with ACAP.

All ACAP staff identified community involvement as a key benefit. Eight of the staff identified conservation as a

Table 2. Percentages for groups' perceived benefits of ACAP.

Variable	Management (%) n=44*	Marginal (%) n=44	Residents (%) n=88	ACAP staff (%) n=8
Conservation	86	20	53	100
Women's empowerment	11	2	7	0
Cleanliness	18	9	14	0
Development	25	20	23	0
Education	5	7	6	0
Vegetable farming	7	7	7	0
Community involvement	0	0	0	100
Institutional – field staff, efficiency, etc.	0	0	0	75
International recognition	0	0	0	38
No benefit	0	39	19	0

* Multiple responses were recorded per respondent.

benefit whereas six of them discussed the presence of field officers in villages and the opportunities they provide as a benefit. Some other factors such as transparency, the ease of getting work done as compared to government offices, and the international recognition that Ghandruk received because of ACAP were also mentioned as benefits.

The majority (86%) from the management group identified conservation as the primary benefit whereas only 20% from the marginal groups identified this benefit. In contrast to this, development was identified as a benefit by almost similar proportion of respondents from both subgroups (25% management and 20% marginal). Roughly 39% of the marginal group perceived no benefits from ACAP whatsoever. Further probes revealed that the marginal group did not have any knowledge about who had provided them with electricity, water, education and other development services. Eighteen percent of the management committee perceived the promotion of cleanliness as a benefit through clean-up programs and sanitation initiatives, for example, construction of toilets. Reflecting back on how it was before ACAP, an older woman from the management group said: "Before ACAP roads were filled with trash and human waste. We did not have toilets in the homes... Today our roads and village are clean. ACAP has shown us how to live a clean and healthy life, and because of the cleanliness tourists like coming to our village".

The empowerment of women and the formation of 'Ama Samuhas' or mothers' group was also identified as an important benefit by some. However, these participants also blamed the political instability in the country and the Maoist war as a cause for the women's groups being inactive today. The Maoist movement is "based on a sense of injustice due to the way in which a social group is treated" (Murshed and Gates, 2005: 122). Because of the 1996 civil war, class struggles between different castes has intensified, each wanting greater domination of political and economic advantages. The

Maoist movement aims to collect all castes and gender together to create a wholesome new Nepal. Maoists (majority of whom is lower caste) are raising their voices for equality of Dalits and declaring discrimination against castes as illegal.

Distribution of resources

Roughly 84% from the management group and 100% of the marginal group stated that the benefits of ACAP have not been equally distributed. Although the ACAP staff admitted to unequal distribution of benefits among groups and regions, they also discussed how indirectly conservation, water, electricity, cleanliness, health post, schools, etc., benefits everyone. A few staff members also discussed how the people of Ghandruk do not consider all these facilities to be benefits, and perceive only direct economic benefits as tangible. The ACAP staff indicated some frustrations as to how Ghandruk residents expect large-scale economic projects from ACAP and view these as the only tangible benefit that could make a difference in their livelihood. Tourism was seen as one highly visible and significant benefit. The ACAP staff also expressed disappointment in regards to the villagers' low attendance in events organized to introduce programs directed to the poorest of the poor, or other micro enterprises and empowerment initiatives, "They only come for programs that have money in it, or they come for the *bhatta* [daily stipend] they receive for attending trainings", observed a program officer.

Location

The distance from one's household location (sub-village or ward) to Ghandruk village proper (Ghandruk is both a VDC and a village unit) was perceived to be relevant (23% management, 20% marginal) to where programs

were launched and who stood to benefit from them. Communities that were not part of the main village were not pleased because ACAP had done nothing for their wards. A woman from Ward 1 (the ward located at the beginning of the VDC) complained that ACAP had not done anything for her ward. She explained how she had asked ACAP staff many times for their support in opening a day care center in her ward, but she was told ACAP did not have the funds for such activities. When asked if ACAP had helped them with funding, she skeptically replied:

“A long time ago they had given a few farming-related trainings, but that was given to keep us quiet; all the bigger developments and benefits are always given to the above wards [main village]”. The staff also admitted to unequal distribution of funding across the region. Since ACAP started the pilot project, its resources were mostly allocated to Ghandruk VDC during the first ten years of its operations. They agreed that even within Ghandruk VDC not all villages have equally benefited from its programs. For example, the main walking path to and through Ghandruk and beyond are well-developed and maintained on a regular basis, while the rest of the paths in the village are not very well-maintained and are almost impassable during the rainy seasons.

Hotel ownership

Roughly 50% of the management group and 36% of the marginal group reported how ACAP's benefits have mostly been targeted toward hotel owners. They complained that the hotel owners were reaping many benefits, and it was the poor farmers that were bearing the cost of conservation. For example, most of the marginal group perceived that the increase in forest cover and wildlife was negatively affecting their livelihood, farmland, and crops.

Several members of the tourism management committee agreed that to some extent hotel owners in Ghandruk had received more benefits than others during ACAP's formative years. They stated how ACAP had provided various trainings for hotel management (cooking, baking, housekeeping, etc.), and in communicating in English so they could better interact with the guests. The hotel owners admitted that they benefit more than the farmers; however, they indicated many farmers fail to take advantage of opportunities available to them. For example, a member of several different management committees who was also the owner of one of Ghandruk's bigger hotels stated:

“There is an option for the farmers and hotels to work together. People from the city bring eggs and vegetables and sell it to us at more than double the regular price. We have no choice and have to buy it because we need it for our hotel. If the local people here could supply that to us, it would benefit us and them both. But the farmers here

do not want to do it.” ACAP staff acknowledged that in the beginning all of ACAP's trainings and incentives were targeted at hotel owners. Alternative energy options like solar, back boiler, and improved stoves were also provided to these hotel owners at a subsidized rate to reduce the demand on fuelwood. But the same incentive did not work with farmers and other lower-caste residents primarily because not many were willing to adopt alternative energy technologies due to its installation cost and lack of awareness of the benefits from such technologies.

Committee membership

One third of the marginal group perceived the management group to be much better off as the primary recipients of ACAP benefits. Although 84% of the management group admitted that the distribution of benefits was not equal, all of them denied that they were getting more benefits than those not on a committee. One person responded angrily: “We are the ones who are spending so much of our time for the village, are not getting paid, and our own businesses and family life are suffering because of the time conflicts from attending meetings.”

Community members' activism

According to 48% of the management and 16% of the marginal group, local residents who were very active and vocal in making their opinions known in village level public events and gatherings, were more capable of persuading ACAP to provide benefits favoring them. A management committee member stressed that ACAP is there for technical support and it was up to the villagers to take the initiative. According to him and a few others, if some regions are less developed than others, a part of it has to do with the people's own skills and actions more than ACAP. Only four people in the management committee stressed the need to look at the bigger picture and how, on the social scale, everyone has benefitted from ACAP. A member of the electricity committee responded: “If we have electricity we can use TV, phone, etc. Due to the presence of schools [in the village, and opened with ACAP support] our children have been able to learn...So I think overall everyone has benefitted, although direct financial benefits might be aimed at hotels”.

Conservation or tourism

A common refrain echoed by the respondents in Ghandruk was that ACAP was good in the beginning but in the last ten years they have not done anything for the

residents. The staff admitted that the number of programs in Ghandruk had decreased in the last ten years, but stated that ACAP was still investing in Ghandruk. The staff provided two reasons for the decline in programs: a decrease in funding, and the need to distribute funding to other areas. "ACAP's main source of funding is the Nepalese Rupee; 2000/person (equivalent to approximately US \$ 20.00) is collected as a tourist entry fee." The staff noted that due to political instability, the number of tourists coming to ACA plunged since 1999 and reached a record low of 36,224 visitors in 2005. In 2006, the ten-year long Maoist insurgency ended with the overthrow of the monarchy and Nepal was declared a People's Republic. Since then there has been a steady increase in the number of tourists entering the ACA. In 2010, the number of tourists reached an all-time high of 88,000, and recently it stands at a little over 100,000 (MoCTCA, 2014).

The issue of tourist fees in Ghandruk was an important concern among the staff and management group. Twenty-three percent of the management group stated that they had no knowledge of how ACAP used tourist fees, and complained that ACAP was not investing any money in Ghandruk. A hotel owner, who also happened to be a member of the tourism management subcommittee, stated: "My friend works in the trekking agency; he said that last year, in one group he brought 54 Koreans; 54 times 2000 is 108,000 for just one group. So you can imagine how much they [ACAP] make in one year." A staff familiar with the budget explained how the entry fees collected from tourists first goes to NTNC and the NGO distributes it to ACAP in the form of a yearly budget. On the other hand, reductions in funding from the tourist entry fees was an issue the staff identified as being problematic. Distribution of the revenue generated through tourist entry fees can be challenging. ACA is divided into seven Unit Conservation Offices (UCO) which consists of 57 VDCs, all of whom demand a fair share. "For example, in 2009 only 31% of the budget allocated for the Ghandruk was used for Ghandruk VDCs, and the rest was for the other five VDCs in this UCO." "According to the annual report for UCO Ghandruk (2009/2010), Ghandruk VDC spent 18% of its budget on conservation, 50% on development, 22% on empowerment, 6% on administration, and 4% on education. However, the distribution of the budget and the programs it financed was unknown to the residents of Ghandruk. Moreover, many stated that the sectoral allocation was somewhat arbitrary and not prioritized well.

The staff complained that Ghandruk residents did not understand that funds had to be distributed to those areas that needed it more than Ghandruk, since it was already well developed. "They think all the money should be spent on them only," added a younger field staff. The primary reasons for the differences in allocation of resources are mostly due to the sectoral focus that ACAP

had been following until 2009; the main focus areas in Ghandruk were on conservation and tourism, and, therefore, the majority of Ghandruk's funding was spent on programs related to those sectors. Hence no clear determination could be made if funds were distributed to more conservation or tourism-related activities, although it seemed that funds were more readily available for tourism. A staff member further elaborated: "There are agriculture programs in Ghandruk, but the main focus in Ghandruk is tourism. In Lwang [another VDC] there is more emphasis on agriculture; so we are focusing on tea plantation there. Similarly, our focus on ACA's upper regions is on heritage tourism because of the area's rich cultural heritage."

DISCUSSION

This paper set out to accomplish two main objectives: 1) to identify the perceived benefits of the Annapurna Conservation Area (ACA) ICDP from the perspectives of project staff, management committee members, and marginal peoples (women, lower caste Dalits and poor); 2) to evaluate the distribution of resources, e.g., funding, programs and services to determine if they are pro-conservation or pro-development. This study is important because it reinforced some of the strengths/weaknesses that have been identified about ICDPs but also sheds some light on some of the challenges researchers face in trying to assess how social, governmental and cultural structures, e.g., caste systems, impact communities so they can be empowered to develop entrepreneurial activities that can be sustained.

Views on benefits

ICDPs such as ACAP were launched with the belief that by providing basic community infrastructure development, alternatives to fuelwood, and economic opportunities for livelihood securities demand for natural resources would decrease and people would develop favorable attitudes toward conservation. To an extent, this was true for ACAP (Baral et al., 2007; NTNC, 2009; Wells, 1994). Today Ghandruk has development facilities (e.g., health posts, schools, day care centers, electricity, solar panels, clean drinking water, cable TV, cell phone towers, etc.) that most villages in Nepal are lacking. At the same time, conservation efforts have also been very successful as indicated by its relatively high quality of biological diversity and protection of many endangered species within its boundaries. Therefore, unlike other ICDPs (Brown, 2003; McShane and Newby, 2004), ACAP should be considered successful in achieving objectives of conservation and development.

The community perceived benefits differently by the various groups that were interviewed particularly,

management and marginal groups. Our results are consistent with findings of other studies from ACA (Spiteri and Nepal, 2008) who found that perceptions of benefits differed greatly between households in villages on the main trail (more positive) than those off the main trail (less positive). Perhaps ACAP's staff in Ghandruk view benefits mostly through the institutional lens; the staff are ground-based functionaries whose job is to implement activities endorsed and mandated by the larger institution (that is, NTNC) for whom they work. That may be one reason why they recognize conservation, community involvement, international recognition, and institutional efficiency as the primary benefits. Members of the management group, on the other hand, recognize more visible and tangible local level benefits such as women's empowerment, cleanliness, and (infrastructure) development.

Only one-fifth of the marginal group members perceived conservation and development benefits, while 40% did not perceive benefits of any kind. There could be several explanations for such results. They indicate to deeply entrenched asymmetric power relations between ACAP staff, management and marginal groups (Dahal et al., 2014). The marginal groups belong to the lowest social hierarchies in Ghandruk and thus have not been able to have their voices heard in the public discourse. It also implies that ACAP needs to gain the trust of marginal groups and take extra efforts in communicating outreach activities targeted to those individuals. This finding is consistent with past research that has examined how development goals for indigenous communities to alleviate poverty, increase incomes, and empower local residents can be implemented if residents are able to adapt their livelihoods (Coria and Calfucura, 2012).

The portrayal of communities as homogeneous entities and lack of understanding of entrenched feudal socio-cultural and political norms in developing countries led many proponents of ICDP to assume that the benefits of ICDP programs and services would be equally distributed to those living in and around the protected area (Neumann, 1997; Wells et al., 2004). This historical situation makes it difficult to study complex communities because of existing attitudes and the time it will take for political and economic conditions to change. "But in reality, past projects have shown that the ICDPs are more beneficial for selected groups and there are many who do not benefit at all (Bajracharya et al. 2006; Robbins 2012; Spiteri and Nepal 2006; Wells et al. 2004)." In this study, the primary beneficiaries were those involved in tourism businesses (e.g., hotel owners and operators). While it made sense for ACAP to reach out to this group to encourage environmental stewardship, and usage of renewable energy and energy saving devices, it disenfranchised the poor, the landless, the women and others who expected equitable distribution of resources from ACAP. Other communities have experienced

similar challenges with conservation strategies but biological and social data are expensive to obtain and monitor outcomes (Brooks et al., 2006).

ICDPs play a role in making some groups more powerful and marginalizing others, e.g., women, poor and landless, whether it is intentional or not. We further stress the fact that people's perceptions of a lack of economic benefit from natural resources can lead to negative attitude towards conservation and stifle any progress toward conservation; this has been shown to be the case in many protected areas around the world (Sommerville et al., 2010), and this study is no exception. If ICDPs are to engage local residents and help communities in the long term, stakeholders of every type will need to be more educated about day-to-day operations and local decision-making so current residents and the next generation will be more likely to have the skills to effectively manage its own future (Borman, 2008).

Resource allocations

A major source of conflict between the staff and Ghandruk residents was due to ACAP's financial uncertainty. The literature has many examples of ICDPs that have failed due to lack of adequate funding over time (Wells et al., 1992). ACAP's long term commitment in the region and adequate funding until now had been one of the reasons for its success (Baral et al., 2007; McShane and Newby, 2004; Wells et al., 1992). However, given the current political uncertainty, ACAP has experienced a drastic reduction in its funding and thus in its number of programs. Reductions in ACAP funds have created a situation where ACAP finds it difficult to meet local expectations. This has encouraged local residents to raise questions about ACAP's use of entry fees, its financial transparency, and even its legitimacy to operate in the region. Local residents are disappointed because they had become dependent on ACAP for trainings, development and other financial benefits. Expectations turn into disappointments if programs cannot be delivered. ACAP currently has empowered the CAMC to collect hotel taxes, money from tree permits and fines. However, the revenue generated from these funds is much less compared to the amount Ghandruk's residents are accustomed to through tourist entry fees. Therefore, project managers and NGOs need to be aware that in such cases many ICDPs, especially those that started out on a large scale, do not have the capacity to generate sufficient revenue to sustain their program costs as well as generate benefits for the community (Wells et al., 2004). It can be argued that 25 years is a long time for a project like ACAP to fulfill its goals. But if one considers the large geographic coverage of ACA, and sparsely populated villages distributed across long distances posing logistical challenges in delivering program support, it is perhaps appropriate to conclude that ACAP is spread too thin. Allocating resources equitably to all 57

VDCs is challenging and the situation can get worse if constituents feel ignored and demand attention. During the late 80s and early 90s, ACAP had focused the majority of its funding in Ghandruk, and as a result much progress was made winning accolades from around the world. For ICDPs, this view of resource allocation is nothing new. Similar issues of financial distribution of resources were seen in the Lupande project in Zambia where chiefs of different groups argued that their area should get more money because their area had more wildlife (Child and Dalal-Clayton, 2004). The literature illustrates that conservation and development projects have a political facet to them and are influenced by the power and interests that different actors have in these projects (Berkes, 2004; Bryant and Bailey, 1997). It appears ACAP has so far successfully taken a balanced approach to implementing conservation and development programs, but there is pressure locally for ACAP to deliver more tangible monetary benefits either through increased opportunities to participate directly in tourism or other programs that are likely to have more visible impacts in improving local livelihoods. The findings of this study and others suggest the apparent limitations of ICDPs and their involvement in tourism. While they are crucial in generating initial enthusiasm and local support, ICDPs have not been necessarily successful in offering a lasting solution to deep-rooted problems of poverty and unequal access to resources and economic opportunities. Past research has shown that nature tourism can have a positive effect on the poor and marginalized if significant money can be made and outside entities do not usurp the locals (Coria and Calfucura, 2012). These problems are complex and intertwined in the social, economic, ecological and political arenas in developing countries like Nepal. The study raises questions about what should development practitioners and local communities expect from an ICDP, and how these expectations should be managed.

ACAP's focus on tourism and the economic benefits villagers received from tourists affected the way people perceived benefits in Ghandruk. This view bolstered peoples' expectations to go beyond the project's capability, a trend common with many conservation and development projects (Ferguson, 1990; McShane and Newby, 2004). Although education infrastructure and health benefits such as schools, electricity, water, and sanitation were things in which everyone had equal access, these development initiatives were rarely perceived as a benefit by the majority of residents. Residents only viewed benefits positively if they produced individual monetary gains. If tourism and development activities can build capacity for local residents versus outside businesses, this outcome will contribute more to the economic and ecological aspects of the area and its people (Coria and Calfucura, 2012). ACAP's dependence on tourist entry fees may pose a problem in the future. Results showed that after 2006, the number of tourists in

the ACA has steadily increased, and the tourist arrival numbers reached a record high in 2013. However, tourist arrivals are dependent on many factors including, but not limited to politics, economics, spread of diseases, terror attacks, natural disasters, etc. Thus, management and policy makers need to diversify the source of income and develop partnerships with government and other organizations to ensure future sustainability of the project and balancing this with protecting natural resources. As with other ICDPs who strive to be successful, the need to conserve resources and support local livelihoods is critical but the scientific rigor in making this assessment is missing in the literature (Bauch et al., 2014).

ACAP's programs depend solely on the number of tourists visiting the conservation area, which can also be problematic when issues of sustainability are key to attracting tourists to an area rich in biodiversity. ACAP needs to develop ways to understand how to integrate funding into internal sources through increasing agricultural productivity and promoting more small scale enterprises. An effective ICDP also needs partnerships between different organizations, NGOs, donors, and government as a way to pass on benefits local residents (McShane and Newby, 2004; Wells et al., 1992). Current research suggests more innovative ways to generate revenue for ICDPs by working with local governments through creative tax incentives and subsidies (Winkler, 2011). Previous research on sustainable development has shown that there is a need for a community to value the benefits of a managing agency in order for them to generate future support for conservation, tourism or other projects (Mbaiwa and Stronza, 2011; Songorwa, 1999; Thapa, 2013). Within Nepal, additional research should focus on comparing Ghandruk to other VDCs (all 57 if possible) that are less developed and those that ACAP is slowly investing in. It would also be beneficial to understand if differences in community members' attitudes towards ACAP and conservation differ within other VDCs now and in the future. For other ICDPs, future research should more thoroughly investigate the conservation-development dilemma using different methods beyond the simple win-win, win-lose situation that is often the case. As Miller et al. (2011) point out, there is a need to explore the conservation-development relationship as a system of trade-offs using multiple criteria and through various disciplines to provide a more in-depth analysis of approaches to understanding costs and benefits.

Conflict of Interests

The authors have not declared any conflict of interests.

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REFERENCES

- Agrawal A, Gibson C (1999). Enchantment and disenchantment: The role of community in natural resource conservation. *World Dev.* 27:629-649.
- Bajracharya SB, Furley PA, Newton AC (2006). Impacts of community-based conservation on local communities in the Annapurna Conservation Area, Nepal. *Biodivers. Conserv.* 15:2765-2786.
- Baral N, Stern M, Heinen J (2007). Integrated conservation and development project life cycles in the Annapurna Conservation Area, Nepal: Is development overpowering conservation? *Biodivers. Conserv.* 16:2903-2917.
- Bauch SC, Sills EO, Pattanayak SK (2014). Have we managed to integrate conservation and development? ICDP impacts in the Brazilian Amazon. *World Dev.* 64:S135-S148.
- Berkes F (2004). Rethinking community-based conservation. *Conserv. Bio.* 18:621-630.
- Borman R (2008). Ecotourism and conservation: the Cofan experience. In: Stronza A, Durham WH (Ed.), *Ecotourism and conservation in the Americas*, CAB International: Cambridge, MA. pp. 21-29.
- Brooks J, Franzen M, Holmes C, Grote M, Borgerhoff M (2006). Testing hypotheses or the success of different conservation strategies. *Conserv. Biol.* 20(5):1528-1538.
- Brown K (2003). Integrating conservation and development: A case of institutional misfit. *Front. Ecol. Environ.* 1:479-487.
- Bryant RL, Bailey S (1997). *Third world political ecology*. Routledge, New York.
- Child B, Dalal-Clayton B (2004). Transforming approaches to CBNRM: Learning from the Luangwa experience in Zambia. In: McShane TO, Wells M (Ed.), *Getting biodiversity projects to work: Towards more effective conservation and development*. Columbia University Press, New York, NY.
- Cora J, Calfucura E (2012). Ecotourism and the development of indigenous communities: The good, the bad and the ugly. *Ecol. Econ.* 73:47-55.
- Dahal S, Nepal SK, Schuett MA (2014). Examining marginalized communities and local conservation institutions: The case of Nepal's Annapurna Conservation Area. *Environ. Manag.* 53:219-230.
- Ferguson J (1990). *The Anti-politics machine: Development, depoliticization, and bureaucratic power in Lesotho*. Cambridge University Press, New York.
- Gupte M (2004). Participation in a gendered environment: The case of community forestry in India. *Hum. Ecol.* 32:365-382.
- Hough JL, Sherpa MN (1989). Bottom up vs. basic needs: Integrating conservation and development in the Annapurna and Michiru Mountain conservation areas of Nepal and Malawi.
- Hughes R, Flintan F (2001). *Integrating conservation and development experience: A review and bibliography of the ICDP literature*. International Institute for Environment and Development, London.
- Karant KK, Nepal SK (2012). Local residents perception of benefits and losses from protected areas in India and Nepal. *Env. Manage.* 49:372-386.
- Mbaiwa J, Stronza A (2011). Changes in resident attitudes towards tourism development and conservation in the Okavango Delta, Botswana. *J. Environ. Manag.* 92:1950-1959.
- McShane TO, Newby SA (2004). Expecting the unattainable: The assumptions behind ICDPs. In: McShane TO, Wells MP (Ed.), *Getting biodiversity projects to work: Towards more effective conservation and development*. Columbia Univ Press, New York.
- Miller TR, Minter BA, Malan LC (2011). The new conservation debate: The view from practical ethics. *Biol. Conserv.* 144:948-957.
- MoCTCA (2014). Government of Nepal: Ministry of Culture, Tourism and Civil Aviation. Accessed September 20 2014.
- Murshed SM, Gates S (2005). Spatial-horizontal inequality and the Maoist insurgency in Nepal. *Rev. Dev. Econ.* 9:121-134.
- Nepal SK, Weber KE (1993). *Struggle for existence: Park-people conflict in the Royal Chitwan National Park, Nepal*. Division of Human Settlements Development, Asian Institute of Technology, Bangkok.
- Neumann RP (1997). Primitive ideas: Protected area buffer zones and the politics of land in Africa. *Dev. Change* 28:559-582.
- Nightingale AJ, Ojha HR (2013). Rethinking power and authority: Symbolic violence and subjectivity in Nepal's Terai forests. *Dev. Change* 44:29-51.
- NTNC (2009). *Management plan of Annapurna Conservation Area*. National Trust for Nature Conservation, Kathmandu, Nepal.
- Oates J (1999). *Myth and reality in the rain forest: How conservation strategies are failing in West Africa*. University of California Press, Berkeley.
- Robbins P (2012). *Political ecology: A critical introduction*. John Wiley & Sons Ltd, United Kingdom.
- Sommerville M, Jones J, Rahajaharison M, Milner-Gulland E (2010). The role of fairness and benefit distribution in community-based payment for environmental services interventions: A case study from Menabe, Madagascar. *Ecol. Econ.* 69:1262-1271.
- Songorwa AN (1999). Community-based wildlife management (CWM) in Tanzania: Are the communities interested? *World Dev.* 27:2061-2079.
- Spiteri A, Nepal SK (2006). Incentive-based conservation programs in developing countries: A review of some key issues and suggestions for improvements. *Environ. Manag.* 37:1-14.
- Spiteri A, Nepal SK (2008). Evaluating local benefits from conservation in Nepal's Annapurna Conservation Area. *Environ. Manag.* 42:391-401.
- Terborgh J (1999). *Requiem for nature*. Island Press, Washington DC.
- Thapa SK (2013). Do protected areas and conservation incentives contribute to sustainable livelihoods? A case study of Bardia National Park, Nepal. *J. Environ. Manag.* 128:988-999.
- Waylen K, Fischer A, McGowan P, Milner-Gulland E (2013). Deconstructing community for conservation: Why simple assumptions are not sufficient. *Hum. Ecol.* 41:575-585.
- Wells M (1994). A profile and interim assessment of the Annapurna Conservation Area Project, Nepal. In: Western D, Wright RM (Ed.), *Natural connections: Perspectives in community-based conservation*. Island Press, Washington, DC.
- Wells M, Brandon K, Hannah L (1992). *People and parks: An analysis of projects linking protected area management with local communities*. World Bank, World Wildlife Fund and USAID, International Bank for Reconstruction and Development, Washington, DC.
- Wells M, McShane T, Dublin H, O'Connor S, Redford K (2004). The future of integrated conservation and development projects: Building on what works. In: McShane T, Wells M (Ed.), *Getting biodiversity projects to work: Towards more effective conservation and development*. Columbia University Press, New York.
- Wilshusen PR, Brechin SR, Fortwangler CL, West PC (2002). Reinventing a square wheel: Critique of a resurgent "protection paradigm" in international biodiversity conservation. *Soc. Nat. Resour.* 15:17-40.
- Winkler R (2011). Why do ICDPs fail? The relationship between agriculture, hunting and ecotourism in wildlife conservation. *Res. Energy Econ.* 33:55-78.
- Young EH (2003). Balancing conservation with development in marine-dependent communities. In: Zimmerer KS, Bassett TJ (Ed.), *Political ecology: An integrative approach to geography and environment-development studies*. The Guilford Press, New York.
- Zinda JA, Yang J, Xue X, Cheng H (2014). Varying impacts of tourism participation on natural resource use in communities in Southwest China. *Hum. Ecol.* 42:1-13.