

## Through the eyes of Asa; the role of integrated conservation development programs in Ghandruk, Nepal

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### Abstract

The Annapurna Conservation Area Project (ACAP) is growing in popularity as Nepal's largest protected area. The National Trust for Nature Conservation uses the sustained revenue generation from the tourism industry to implement Integrated Conservation Development Programs (ICDP). These programs focus on promoting participatory interaction with the local villages of the Annapurna Conservation Area (ACA) in an attempt to develop them into sovereign and self-sustaining communities. When ACAP was first established in Ghandruk to control the rapid rate of deforestation caused by increases in population and tourism, the development efforts and empowerment activities were targeted toward hotel owners. This served to marginalize the farmers and communities unrelated to the tourism industry. This study's purpose is to examine the impact that the tourism industry has in promoting 'people oriented' conservation and the attitudes of Ghandruk's marginalized populations towards ACAP's ICDP developments, with a focus on conservation awareness. Information was gathered through semi-structured and unstructured interviews with ACAP officials, local management committee staff and marginalized populations of women and Dalits. This information was used to focus on understanding how ACAP has incorporated participation of marginal groups in Ghandruk into conservation programs. Ultimately the felling of trees for guesthouse construction resulting in the loss of natural habitat for apex predators, the absence of scientific research, and the disregard for the environmentally oriented marginal groups of Northwestern Ghandruk has placed an emphasis on tourism based development that overshadows the conservation of biodiversity and natural resources in the Annapurna Conservation Area.

Keywords: Development studies, natural resources and conservation, natural resources management policy.

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## 1. Introduction

The Annapurna Conservation Area Project (ACAP) was initiated in 1986, using the village of Ghandruk for a pilot project to integrate nature conservation and community development (Thapa, 2013). ACAP's adoption of Integrated Conservation Development Programs (ICDP) has created a 'people-oriented' conservation area that has decentralized authority to grass-roots institutions to manage resources, infrastructure development, promote tourism, and provide income-generating opportunities (Mehta & Heinen, 2001). Since ICDP is dependent on participation, it is important to know the views of local communities regarding implemented policies and programs (Mehta & Kellert, 1998) to see success through the lens of the local population as compared to the lens of the organization. ACAP is Nepal's largest protected area and annually attracts 60% of the tourists who visit the country (NTNC, 2009). ACAP derives 80% of its funding from trekking permits purchased by tourists entering the region (ACAP, 2009). Because of ACAP's reliance on the financing from the tourism industry this study's purpose is to examine the impact that the tourism industry has in promoting 'people oriented' conservation and the attitudes of Ghandruk's marginalized populations towards ACAP's ICDP developments with a focus on conservation awareness.

The research questions are, in what ways are local attitudes shaped by ACAP's integrated conservation development programs? How have integrated conservation development programs led to greater conservation in the protected area? In what ways has ACAP's implementation of integrated conservation development programs generated conservation awareness in the populations of Ghandruk?

### 1.1. History of Conservation in Nepal and the Annapurna Conservation Area

The entire world is currently experiencing a rapid degradation of natural resources due to population growth and an increase in standard of living. Alarmed by the rate of natural resource degradation in the mountainous region of Nepal, the World Wildlife Fund (WWF) worked with the National Trust for Nature Conservation (NTNC) to establish as the Annapurna Conservation Area (ACA) with the inclusion of its local communities in its management. Under the supervision of the NTNC, the Annapurna Conservation Area Project (ACAP) started in 1986 as a pilot project in Ghandruk.

Situated in the north-central part of the country; the ACA is the largest PA in Nepal. The ACA covers 7,629 km<sup>2</sup> of land and comprises 5.18% of the country (ACAP, 2009). This area is rich in biodiversity and is home to 1233 plant species, 23 species of amphibians, 40 species of reptiles, 488 species of birds, and 102 species of mammals (NTNC, 2009). Subsistence agriculture around grain crops and the raising of livestock such as water buffalo is the main source of livelihood for this region (ACAP, 2009).

### 1.2. Integrated Conservation Development Program

Environmental conservation and poverty alleviation are two important agendas present in the developing world today (Pollini, 2011). Previously, conservationists considered any development as a threat to conservation and their organizations (Brown, 2002). Integrated Conservation Development Programs (ICDP) remedy the polarizing potential of these two agendas, and to move forward with equal attention to both. ICDPs are defined as an "attempt to ensure the conservation of biodiversity by reconciling the management of protected areas with the social and economic needs of local people" (Wells, Brandon, and Hannah, 1992). The popularity of ICDPs in Protected Areas (PA) grew because of their success in simultaneously addressing three critical areas of sustainable development: biodiversity conservation, public participation of locals and economic development of the rural poor (Wells & McShane, 2004).

Although primarily developed to conserve biodiversity, the effectiveness of ICDPs have been questioned by biologists, who regard them as being more favorable toward development and less

toward protection of flora and fauna (Oates, 1999; Hutton, Adams, and Murombedzi, 2005). These scholars believe that focusing on people and development undermines the original reason for the existence of protected areas, which was for the conservation of biodiversity and natural resources.

ACAP follows the ICDP model with the objectives of i) conserve natural resources of flora and fauna in the ACA for the benefit of the present and future generations; ii) provide sustainable social and economic development through adopting a decentralized decision-making strategy concept; and iii) develop tourism in the region with minimum adverse environmental impact (ACAP, 2009).

### *1.3. Participatory Development*

The long-term goal of ACAP is to establish the local people as the custodians of their natural and cultural heritage by involving them in the planning, implementation, and maintenance of all development activities (Pradhan, 1997). ACAP uses a grassroots ideology to focus on strengthening the decision-making and management capabilities of the local community in conservation development (Bajracharya, 2008). Empowerment depends on developing competencies, by providing the skills and confidence necessary to exercise power in decision-making in participatory development. However, current literature has shown that the decentralized approaches have fallen short of their promise in that they are not as participatory and inclusive as envisioned in the original legislation (Kellert, Mehta, Ebbin, & Lichtenfeld, 2000). In many cases, they have led to an unequal distribution of socio-economic benefits and the exclusion of marginalized groups (Cooke and Kothari, 2001). In the context of Nepal and this research, marginal groups are defined as women (due to a strongly patriarchal society), farmers (due to economic vulnerability, with 75% of the population farming), and lower caste Dalits (due to the rigid Hindu caste system).

Participation is defined as a process that enhances the capacity of individuals to improve their lives and facilitate social changes to the benefits of those that are disadvantaged (Cleaver, 2001). Participatory conservation efforts, although a more efficient alternative to centralized decision-making, have been criticized, mainly for benefiting the elite members of the society and excluding marginal communities (Cooke & Kothari, 2001). A critical understanding of these complexities of participatory engagement is, therefore, essential to improving conservation policies and practices (Senecah, 2004). When it comes to participation what happens in practice is often different from rhetoric.

## **2. Methodology**

### *2.1. Study Site: Ghandruk*

The research was conducted in the Ghandruk village, situated on the southern slope of ACA, approximately 50km from Pokhara. Ghandruk is the first main trekking hub for tourists preparing for either the Annapurna Base Camp or circuit trek. Ghandruk served as an ideal research location for several reasons: i) Ghandruk is the birthplace of ACAP and has been running programs for over 25 years; ii) it is where the majority of ACAP's activities and funding have been targeted; iii) The ICDP programs in Ghandruk are considered a successful model; iv) it is a tourism hotspot, and v) Ghandruk is rich in biodiversity and has access to pristine natural resources.

The research was conducted in the spring of 2015 over a 30-day period that was cut short due to a major earthquake. To assimilate properly with the Gurung culture, I arranged a homestay with local subsistence oriented family for the entirety of my research stay. In order to best understand individual perceptions and incentives, semi-structured and unstructured interviews were used and fell into three categories i) ACAP and local management committee staff, ii) the marginalized population of

Northwestern Ghandruk and iii) Jack Kinross, a New Zealand conservationist living in Ghandruk who was in the process of rewilding a leopard named Asa.

## *2.2. ACAP and Local Management Committee Staff*

Before arriving to Ghandruk interviews were conducted at the ACAP headquarters in Pokhara with the Project Director, Lal Prasad Gurung and Head of Tourism, Narendra Lama. These discussions brought forth knowledge about the overarching goals and aspirations of the project's participatory development approach. Interviews with ACAP affiliates were continued upon arriving to Ghandruk with the Officer-in-Charge, Paras Bikrun Singh. Paras helped me establish multiple contacts with each coordinator of Ghandruk's various ICDPs. These interviews were conducted formally with a written informed consent form and permission to record notes during our conversations. These conversations did not represent local perceptions of conservation and marginalized involvement in participatory development.

## *2.3. Northwestern Ghandruk*

The eighth ward of UCO Ghandruk is a community of traditional Gurung homes off the major trekking trail. A marginalized population of subsistence farmers predominantly occupied these homes. These interviews represent the local impressions on the implementation of ACAP's participatory development initiatives. Data was collected through open-ended conversations following the guidelines of the semi-structured interviews with ACAP affiliates.

## *2.4. Jack Kinross*

A New Zealand native, Jack Kinross is a conservation scientist living in Ghandruk. Jack manages a private sector conservation organization titled, Wild Tiger, a program oriented on rewilding. This rewilding program works with a leopard cub named Asa (Nepali for Hope) in reacclimatizing into its natural habitat above Ghandruk. Jack's familiarity with the region gave him the knowledge to speak to the effectiveness of ACAP's ICDPs as it related to conservation. Due to his fieldwork in the neighboring forest with an apex predator, he provided information on how ICDPs are more favorable toward development and less towards conservation.

# **3. Research Findings**

## *3.1. ACAP Funding & Tourism*

Currently, ACAP is sustained through the collection of trekking permit fees from tourists entering the ACA. ACAP's revenue runs entirely on these 2000Rs/person entry fees, funding everything from program planning and development to its implementation in the field. This revenue is then distributed across the 57 Village Development Committees in the entirety of the ACA before finally trickling down to each village community. ACAP has empowered local management to collect hotel taxes, money from tree permits and other fines. This money is sufficiently smaller in amount compared to the larger number acquired through tourist entry fees. Therefore, programs need to be aware that many ICDPs do not have the capacity to generate sufficient revenues to cover their program costs as well as generate benefits for the community (Wells et al., 2004).

ACAP's philosophy believes that by providing necessary community infrastructure the demand on natural resources will decrease, and people will also develop more favorable attitudes toward conservation. Today, Ghandruk has an extensive range of facilities that are not available in most Nepali villages. There are health posts, schools, a day care center, well-managed trails, safe drinking water facilities, waste management sites, electricity derived from three micro-hydro power plants,

solar panels, television with cable channels, and cell phone towers. Preliminary observations show that ACAP's ICDPs have met both of its objectives: conservation and development.

However, research (Wells et al., 2004) indicates that the benefits of ACAP are not equally distributed in Ghandruk. Specifically, more benefits are provided to hotel owners and relatively less to farmers. ACAP's operational plan in 1986 clearly stated that, along with conservation, ACAP would focus on tourism in Ghandruk. Therefore, to promote ACAP as a travel destination, the majority of the project's budget was invested in providing clean, well-managed accommodations for the increasing number of tourists, by training hotel owners and supporting tourism entrepreneurs. These factors not only resulted in unequal distribution of funds within a community but also influenced which communities received greater investments. These perceptions are reflected in CAMC's 2014 Annual Report, which states that 29% of their yearly budget, the largest allocation, was spent on the Sustainable Tourism Management ICDP. In comparison, the Gender Development, Agricultural Development, and Alternative Energy ICDPs, which are essential to empowerment, are the three lowest funded programs (CAMC, 2014).

### 3.2. *Northwestern Ghandruk*

Ghandruk's first impression to the thru-trekker is one of a modernized mountain village. Everywhere you look, there are guesthouse accommodations that serve you fresh food from natural gas powered kitchens and provide access to solar powered hot water. The main trekking trail of Ghandruk is well worn and is rarely ventured from by trekkers.

A five-minute walk away from the main trail that runs through Central Ghandruk leads to Northwestern (NW) Ghandruk. Farmers and homemakers occupy this community and make their living off of sustainable agriculture from the surrounding terraced fields. This population is marginalized in relation to the tourism oriented Central Ghandruk region, a forgotten ward that does not reap the reward of modernized trekking affluence.

NW Ghandruk was once the home of Gorkha enlisted families whose upward mobility allowed them to out-migrate to the nearby cities of Kathmandu, and Pokhara, who in the pursuit of a higher standard of living, abandoned their homes and plots of land. Over time, these vacant houses were occupied by surrounding villagers who now maintain the homes and terraced fields. These squatting families reside in the abandoned homes with no financial responsibilities and live by farming the land tied to the home. This subsistence style includes working in the fields, traveling into the jungle collecting firewood and feeding livestock. This community in Northwestern Ghandruk is ultimately the most connected to the natural environment and its conservation.

NW Ghandruk's population has lower levels of education than the rest of Ghandruk. Students often do not finish their schooling to help the family with daily requirements tasks. The males commonly work in the fields while the females work in the home to feed the family and manage the household. This lack of education limits participation, as the majority of the marginalized community is unable to identify or participate in any of the benefits of ACAP. On in-depth questioning, these residents did not have knowledge about who had provided them with electricity, water, education and other development programs. Their responses showed that the benefits they saw were tied to the tourism industry. Therefore, there is a need for ACAP to generate awareness about its objectives, activities, and contributions in NW Ghandruk.

### 3.3. *Natural Resource Conservation Program*

The ACAP ICDP that focuses most directly on biodiversity and natural resource conservation is the Natural Resource Conservation Program (NRCP). NRCP's primary objective is to conserve limited natural forest and pasture and to increase its cover and diversity while simultaneously meeting the community's needs for fuel, fodder and timber. ACAP achieves these goals through an afforestation nursery operation, programs to help construct barriers to grazing livestock, management trainings, and a tree cutting permit program (CAMC, 2014).

The NRCP is Ghandruk's third largest funded ICDP (CAMC, 2014), with the distribution of tree felling permits as its core responsibility. The communities of ACA are not allowed to cut trees without a permit but are authorized to collect fodder from the forest floor that is used as firewood in traditional homes.

Tree felling permits are acquired through an application process whereby a guesthouse or household submits an application, stating their use for the lumber and the location in the forest where it will be cut. The NRCP committee reviews the application and Ghandruk's two forest rangers determine if the site is appropriate for cutting. During the 2014 fiscal year, the CAMC recorded 500 trees felled for 350 households of which the majority was for guesthouse construction in Central Ghandruk (CAMC, 2014).

In addition to humans entering the forest for firewood, the locals' livestock has free reign to roam the jungle for grazing. ACAP perceives the grazing of cattle as a traditional practice and has no programs currently or in planning to address the straying of livestock into natural ecosystems. Because they are allowed free reign, cattle create biodiversity disturbances to the native flora and fauna of the natural ecosystems surrounding Ghandruk, predominately apex predators such as Asa, the leopard.

Interviews with Jack Kinross allowed me to understand the need for conservation during a discussion about Asa, leopard cub in the process of rewilding into the forests above Ghandruk. As an apex predator, Asa's habitat covers a broad range that commonly overlaps with human settlements (ACAP, 2009). These mammals require large tracts of undisturbed habitat where they can hunt for prey. However, as livestock roam into predator habitat the potential of predation increases, causing an uproar in local communities against the predator. Alongside with animal disturbances, there are frequent human disturbances related to the felling of trees. Since the lumber is predominantly for construction usage, the trees cut are large highly sequestered old growth species. The absence of restrictions on tree cutting results in habitat fragmentation. This loss of habitat places additional stress on the big range predators of the region, inhibiting mating and undermining survival. Kinross has determined that the jungles of Ghandruk are an unfit location for Asa to complete his rewilding program (Kinross, 2015).

## **4. Discussion & Analysis**

### *4.1. ACAP & Tourism*

The unpredictability of the tourism industry may impose a limitation on ACAPs ICDPs if the primary source of funding for protected areas relies solely on tourism. This study shows that promotion of tourism, as an incentive for economic development, is not the best or most efficient way of achieving sustainability in areas where communities are dependent on agriculture. Therefore, there is a need for programs to focus more specifically on agricultural productivity in a way that is compatible with tourism.

NGOs usually focus their programs on areas that will likely ensure recognition. ACAP has followed a similar trend by focusing more on travel-related areas, which results in unequal distribution of benefits across the protected areas. The majority of ACAP's benefits have favored those involved in tourism in the main villages along the scenic Annapurna Circuit. Thus, ACAP has made the hotel owners and those living in the central village more prosperous and powerful as compared to the residents of NW Ghandruk. By trying to achieve immediate results in the first 5-10 years of its establishment, ACAP has not been sensitive to issues related to community diversity, resulting in a wider gap in prosperity between those involved in tourism versus those that are not. The effect is that marginality in Ghandruk now extends beyond caste, gender and occupation to include location and occupation as it relates to tourism.

### *4.2. Participation of Marginalized Populations*

The gap between the trekking-oriented Central Ghandruk and the subsistence farming Northwestern Ghandruk has been widened by ACAP's over emphasis on the tourism industry. As the Tourism Management ICDP receives the majority of funds, the ICDPs that are most beneficial to the marginalized populations such as Gender Development and Agricultural Development are relatively neglected. The relegation of these programs to a less favored status also creates a lack of education and awareness of development opportunities within the disadvantaged groups of Northwestern Ghandruk. This lack of knowledge and education about the function of the ICDP management committees has resulted in lower levels of participation. Therefore, the marginalization of these individuals is compounded due to their lack of education and awareness. The failure to grasp the nature and function of these committees discourages the disadvantaged groups from speaking up in meetings and being active participants. For ACAP to achieve successful participation in its ICDPs, there is a need to focus more on generating consciousness and conducting training to ensure an increase in participation among marginal groups. It is key to understand that disadvantaged people need to be engaged in a way that reflects an understanding of their social norms and traditions. Just assigning the disadvantage to committees based on quotas as established by CAMR is not sufficient, and may ultimately reinforce existing social power differences in communities.

### *4.3. Conservation*

Poorer households, lower caste, and women are the majority users of natural resources and rely heavily on them for fuelwood and fodder. NW Ghandruk households cook inside over a traditional wood fire for each meal of the day, polluting their residents' lungs with soot and ash. This practice also requires multiple trips daily into the jungle for fodder collection. As this unregulated collection continues, families must travel further into the forest for ample amounts of firewood. ACAP's Tourism ICDP invests in natural gas cooking stoves to counteract this practice by providing an alternative fuel source. However, the primary benefactors of these gas stoves are the guesthouses of Central Ghandruk.

ACAP's aspiration to limit their impact on the forest by cooking over imported natural gas burners is deemed negligible in comparison to their impact from the consistent felling of trees for hotel construction. Because the majority of tree cutting permits are for guest home construction, the quality

of the timber used is essential to habit preservation in relation to the wood collected for cooking over traditional fires.

The continued felling of trees for guesthouse construction in Ghandruk will lead not only to the destruction of its environment but will also have an adverse impact on its economy as well. Currently, there is more tourism hospitality infrastructure in Ghandruk than will reach full occupancy even during the peak season of Chinese New Year. Instead of the current focus on building more hospitality options for trekkers, a transition away from increasing the quantity of guesthouse to enhance the quality of the established infrastructure is necessary. Upgrades such as installing passive solar hot water heaters and active solar panels for electrical output could be funded through bolstering the revenue of the Alternative Energy ICDP.

Alongside sustainable energy initiatives, the Agriculture & Livestock Development Program could be utilized to create a food cooperative between the subsistence farmers of NW Ghandruk and guesthouse owners of Central Ghandruk. This local sourcing of food can empower the marginalized subsistence communities while presenting a local sustainable farm to table food practice that appeals to eco-tourists. Food cooperatives could be managed through the Gender Development ICDP by using the micro-credit prowess of the aamaa samuha, resulting in further empowerment of women in Ghandruk.

The trees that are currently being cut for guesthouse construction are not cut in an organized manner. The erratic harvesting practices result in habitat fragmentation and a negative impact on biodiversity. In cooperation with ACAP's current natural reforestation approach, where the forest grows back naturally, trees are being removed from the jungle faster than they are regenerating. Ghandruk's tree cutting permit process is an unsustainable practice through which ACAP's lack of scientific research can prove otherwise. Following in the footsteps of the community members who have already begun growing trees on their agricultural land, ACAP should develop afforestation, the establishment of new forests, and artificial reforestation programs. The creation of manageable centralized cutting zones through the Agriculture Development ICDP would not only limit habitat fragmentation, but also provide empowerment opportunities to the farmers, who would manage and harvest the land, and to the women who could administer the permit process through an aamaa samuha.

Despite its theoretical and practical contribution in the field of participatory conservation, several limitations of the study should be noted along with suggestions for future research. The study was limited by a brief research period of only twenty days and by examining only one village within the ACAP. This study generalizes the ACA region as a whole. Therefore, it is recommended that future research includes the study of other villages within ACAP to determine if the negative impact on marginalized populations in Ghandruk is part of a general trend across the region. Future research should direct attention to the effect that the 2015 earthquake will have on tourism into the region. As ACAP derives its revenue from tourism permits, a decrease in trekkers will hinder the organization's ability to implement successful ICDPs.



## 5. Conclusion

As the largest conservation area of Nepal, the ACA serves as an example of Nepal's first initiative to include people in the management of a protected area. This study focuses on understanding how the ACAP has incorporated participation of marginal groups in Ghandruk in conservation programs while also identifying shortcomings in program implementation and participatory aspirations.

ICDPs assume that they will be able to generate benefits to the local people, and these benefits will be equally distributed (Wells et al., 2004). Results of this study on Ghandruk show that ACAP does not evenly distribute its benefits. This disparity is a function of competition for local interests, and limitations in the capacity marginalized community members to engage in programs, and the effect that spatial proximity to major trekking trails has on their socio-economic opportunity.

ACAP'S ICDPs orient towards infrastructure development for the tourism industry. The overfunding of the Tourism and Community Development ICDPs has been to the detriment of the marginalized populations. Disregard for communities such as NW Ghandruk has also resulted in limited education and awareness opportunities availability. This effect on the disadvantaged groups, along with their lack of general education makes it difficult for them to rise above the social oppression they have been experiencing for years. Better efforts at creating effective engagement and more active participation in development committees could begin to remedy this.

The felling of trees for guesthouse construction, the loss of natural habitat for apex predators such as Asa, and the disregard for the environmentally oriented marginal groups of Northwestern Ghandruk has placed an emphasis on development that overshadows the conservation of biodiversity and natural resources. Overall ACAP's programs have not led to greater conservation in the ACA. Conservation programs are only valid and sustainable when they have met the dual objective of protecting and improving livelihoods of the local people while simultaneously having a beneficial impact on the natural ecology of the surrounding environment.

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