

Case study 1 - The Role of Alternative Livelihoods in Conservation : Lessons Learned from the Creation of the Community-Managed Tayna Center for Conservation Biology

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Introduction : Overview of the intervention zone

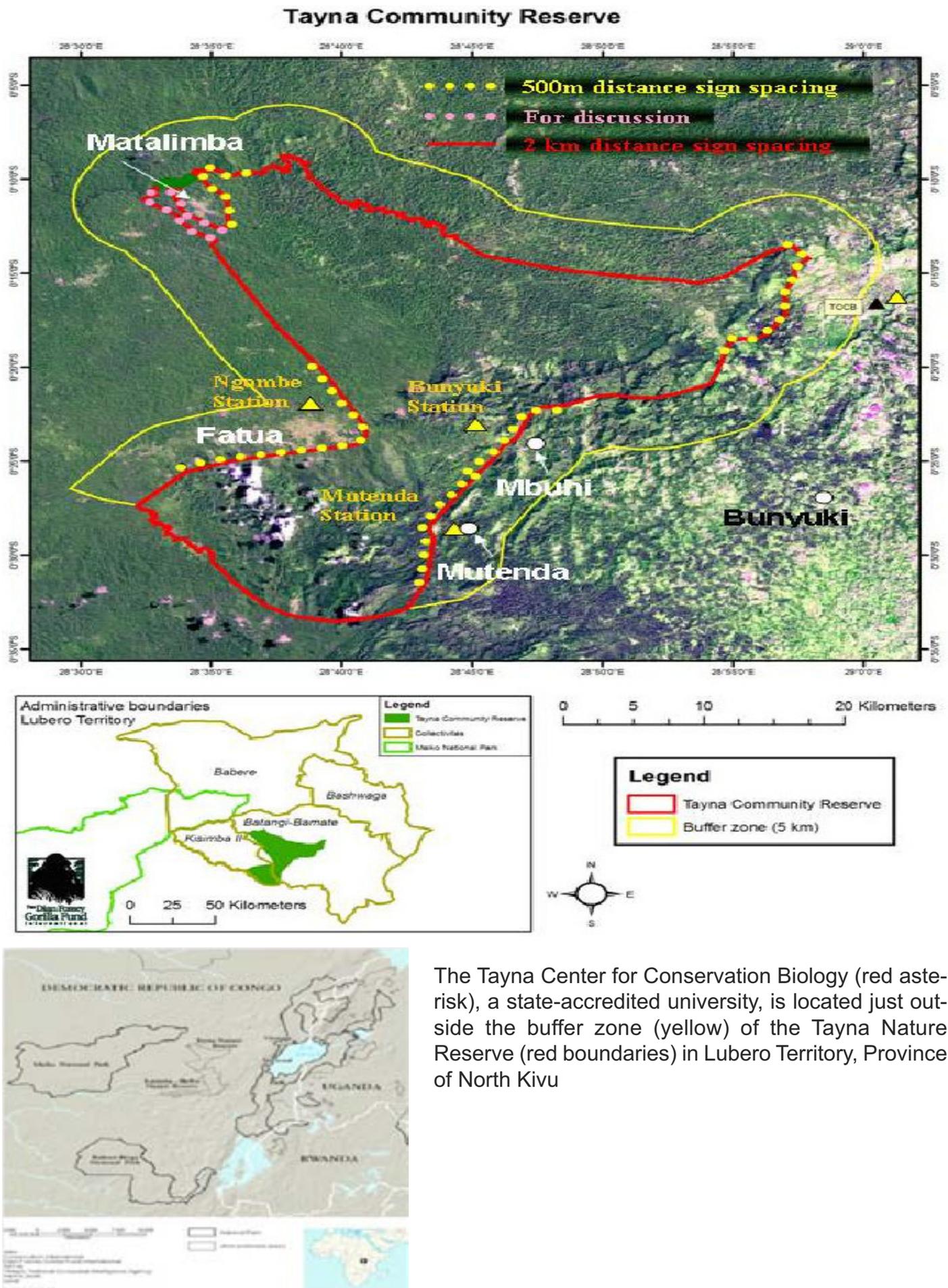
This chapter describes how alternative livelihoods interventions can include a role for higher education in conservation and biological sciences for local stakeholders. As a case study, it describes the development, successes and challenges involved in creating a community-managed university located near a community nature reserve in rural, eastern DRC: The Tayna Center for Conservation Biology.

Location : The Tayna Center for Conservation

Biology (TCCB) is located in the Maiko Tayna Kahuzi-Biega Landscape in eastern Democratic Republic of Congo, Province of North Kivu. It is located just outside the buffer zone of the Tayna Nature Reserve near the village of Kasugha (Figure 1).

Biodiversity value : This region lies between the lowlands of the Congo Basin and the highlands of the Albertine Rift (altitude: 495–3,279 m), making it a phytogeographical convergence zone between two centres of regional endemism: the Congo lowland forests, a “High Biodiversity Wilderness Area”, and the Kivu-Ruwenzori region of the Albertine Rift, part of the eastern Afromontane

¹ Mittermeier, R.A., Mittermeier, C.G., Brooks, T., Pilgrim, J., Konstant, W., da Fonseca, G.A.B. and Kormos, C. 2003. “Wilderness and biodiversity conservation”. PNAS 100: 10309–10313; Mittermeier, R.A., Robles Gil, P., Hoffman, M., Pilgrim, J, Brooks, T., Mittermeier, C.G., Lamoreux, J. and da Fonseca, G.A.B. 2004. Hotspots Revisited. Cemex Books on Nature; Myers, N., Mittermeier, R.A., Mittermeier, C.G., da Fonseca, G.A.B. and Kent, J. 2000. “Biodiversity hotspots for conservation priorities” Nature 403: 853–858. Palaeo-ecological studies also show this region to have been a faunal refuge of montane forest during the cold and dry periods of the Pleistocene era.



The Tayna Center for Conservation Biology (red asterisk), a state-accredited university, is located just outside the buffer zone (yellow) of the Tayna Nature Reserve (red boundaries) in Lubero Territory, Province of North Kivu

Figure 1. Location of Tayna Nature Reserve and the Tayna Center for Conservation Biology

“Hotspot”¹. The area is noted for its globally significant biodiversity, containing more than 45 IUCN Red List-threatened species of fauna and flora, and high numbers of endemic and restricted-range species. There are important populations of large tropical forest vertebrates including Eastern chimpanzee, Forest elephant, Okapi, Forest buffalo, the Congo peacock, and Grauer’s (eastern lowland) gorilla (endemic to eastern DRC)². The region is also globally significant for containing some of the largest remaining blocks of intact forest in the Congo Basin. These forests at the headwaters of the Congo River not only regulate local climate and soil protection, but are critical to maintaining global ecological services – storing carbon that counteracts global climate change and playing a role in regulating one of the world’s largest river basins.

Livelihoods and subsistence in the region :

The Maiko Tayna Kahuzi-Biega (MTKB) Landscape is an area of significant poverty, where almost all of its inhabitants rely on subsistence agriculture, hunting and the gathering of forest products. The principal economic activities in the Landscape are subsistence farming, hunting, cattle raising, goat and/or sheep raising, mining and some fishing. Most farming is carried out using slash-and-burn methods, with principal crops being manioc, cassava, rice and beans. There are a few plantations near villages that grow oil palm, banana and coffee, but most commercial plantations are now degraded and are no longer functional. Oil palm is extracted by simple hand methods throughout the landscape. It is an important product traded in local villages and is often moved by bicycle to larger village markets in the east. In North Kivu near Tayna, there are cinchona (Rubiaceae family) plantations, a medicinal plant used for malaria treatment, tended by local farmers, who sell their product to a commercial company. Subsistence hunting takes place throughout the Landscape. The trade in bushmeat is not as developed as in western Central Africa, but consumption of bushmeat is high near illegal mining camps and in some smaller towns and villages. Most local bushmeat trade is mon-

key, duiker, antelope and rodents. River fishing is common throughout the Landscape and some fish farms (now in disrepair) are present in the Walikale area in the centre of the Landscape.

Emerging from civil war : The civil war ended, in theory, with the signing of the Sun City Accords on April 2, 2003, finalizing the Lusaka Agreement, restoring peace and national sovereignty to DRC and establishing a transitional government. This “officially” ended the period of civil war dating back nearly eight years, in which 2–4 million people died, mostly from disease and famine, the most costly conflict in human lives since World War II. The vast majority of the violence and concomitant deaths were confined to eastern DRC, with North and South Kivu provinces occupying the centre of the maelstrom. Unfortunately, armed conflicts did not cease in 2003, but have continued sporadically throughout the Landscape until 2009, as various Mai-Mai units refuse to unify with the national DRC army, and Rwandan Interhamwe groups control some areas of the Landscape by armed force. These militias create insecurity through sheer terrorist violence, often against women (see below), and many use child soldiers. They have decimated domestic animal stocks of farmers throughout the area, stealing, killing and eating most local stocks. They enforce “taxes” on simple people attempting to move their goods to market, or in some cases, they take entire villages hostage or oversee quasi-slavery conditions in the mines they control. They control most of the illegal mining sites, and they participate heavily in the bushmeat trade and illegal trafficking of animals.

Women, widows and vulnerable children :

Women have significantly less access than men to education, assets and services, restricting them from actively participating in civil society. Deeply engrained cultural traditions and beliefs further perpetuate gender inequity and often exclude women from village decision-making processes. Many women enter arranged marriages in their teenage years and are expected to have large families. They have little knowledge about

² These megafauna assemblages, characteristic of Central African rainforests, represent one of the best opportunities worldwide to protect examples of intact tropical forest megafauna communities; they have mostly disappeared from South-east Asia and West Africa.

reproductive health or alternative methods for family planning. As wives and mothers, women are responsible for almost all of the household activities necessary for family life: child care, preparation of meals, tilling agricultural fields, water carrying, wood gathering, etc., yet they have very little financial security or land to call their own. In a region emerging from years of civil war and strife, life is especially hard for widows. Although orphans may sometimes be looked after by relatives, the widow is forced to fend for herself and is often left homeless. Conflict in the region has also resulted in widespread use of rape as a weapon of war. Over the past decade, tens of thousands of women and girls have suffered systematic rape and sexual assault at the hands of various armed groups (including the DRC military). These crimes against humanity continue, with large numbers of women suffering from violent multiple rapes, mutilations and the subsequent development of fistulas, a debilitating medical condition often leading to ostracism from society. The widespread fear of HIV/AIDS contributes to the stigmatization of rape survivors and their children. Because of the civil wars, there are vast numbers of orphans and vulnerable children. These children are taken in by relatives and other families while others are placed in makeshift orphanages, thus placing an enormous burden on communities barely able to survive with the limited resources available to them.

Alternative livelihoods methodology and results achieved

Introduction : Conservation International (CI) partner, the Dian Fossey Gorilla Fund International (DFGFI), began working with local communities in North Kivu in early 2001³. At that time, they developed a community conservation programme initially focused on the developing

Tayna Nature Reserve (see chapter 2), and then later on a zone of communities that would form an ecological corridor between the Maiko and Kahuzi-Biega National Parks, represented by the Union of Associations for Gorilla Conservation and Development in Eastern DRC (UGADEC)⁴. One of the important pillars of this community conservation programme was that, in exchange for local communities' commitments to conservation, DFGFI would provide local development and health projects as alternative livelihoods to offset local people's opportunity costs as they ceded land-use rights to create nature reserves. During several stakeholder meetings in 2002–2003 with the wider community representation afforded by the UGADEC association, DFGFI solicited feedback from local groups as to what kind of major development intervention they would favour most for their communities. An overwhelming majority of the community leaders stated that their sons and daughters did not have access to higher education, and that this was their highest priority for local economic development. The idea of a community university emerged, a university that would be located near the flagship project, the Tayna Reserve, but would serve the needs of communities throughout the UGADEC zone by providing job training in natural resource management, conservation, biology and other subjects.

With the community university concept in mind, UGADEC created the Tayna Center for Conservation Biology (TCCB) in mid-2003, and began its first academic year (October 2003–September 2004) in rented buildings in Goma, while construction was underway at the site. By February 2005, the TCCB had moved to its new site at Kasugha, near the Tayna Nature Reserve.

Current configuration of the university : The TCCB is a private degree-granting higher-educational institution.

³ Conservation International began their partnership with DFGFI in October, 2003 with the inception of the USAID CARPE IIa programme.

⁴ The Union of Associations for Gorilla Conservation and Development in Eastern DRC (UGADEC) was founded in 2002, and is a federation of eight local NGOs based on customary powers (traditional governance). Each individual NGO member represents the interests of its chefferie (tribal territory) that includes both a development zone (CBNRM zone) and a fully protected zone. The federation was created in an effort to standardize their conservation and development efforts and contains a scientific component as well as customary governance component. It also serves as an administrative unit, coordinating the technical and financial activities of all its eight members, and additionally administering a community-managed conservation biology university that is part of the programme.

tion institution based in Kasugha, North Kivu Province in the Democratic Republic of Congo (DRC). It was established as a non-profit organization under DRC law, and received accreditation under a Presidential Decree issued in March 2006. It is also known as the Kasugha University for Conservation and Rural Development (UCNDK).

TCCB operates in a remote region of the DRC under extremely difficult conditions. Besides providing students with higher education, TCCB must house, feed and provide basic services to a small community of over 350 people, including students, faculty and staff. A purpose-built campus, built by the local community, an integrated

agricultural production plan, a conservation and environmental education ethic, and a work-study programme provide the setting for a community experience that extends well beyond the academic programmes.

The TCCB offers 19 academic programmes in five faculties: Economics, Information and Communications, Sciences, Medicine and a Polytechnic Institute. It has a staff of 45, including 20 academic faculty and 25 administrative and operations staff and is managed administratively through a Board of Directors (Figure 2). The campus occupies a 122-hectare concession of rolling terrain and is composed of an academic wing, two dorms for students, administrative offices,

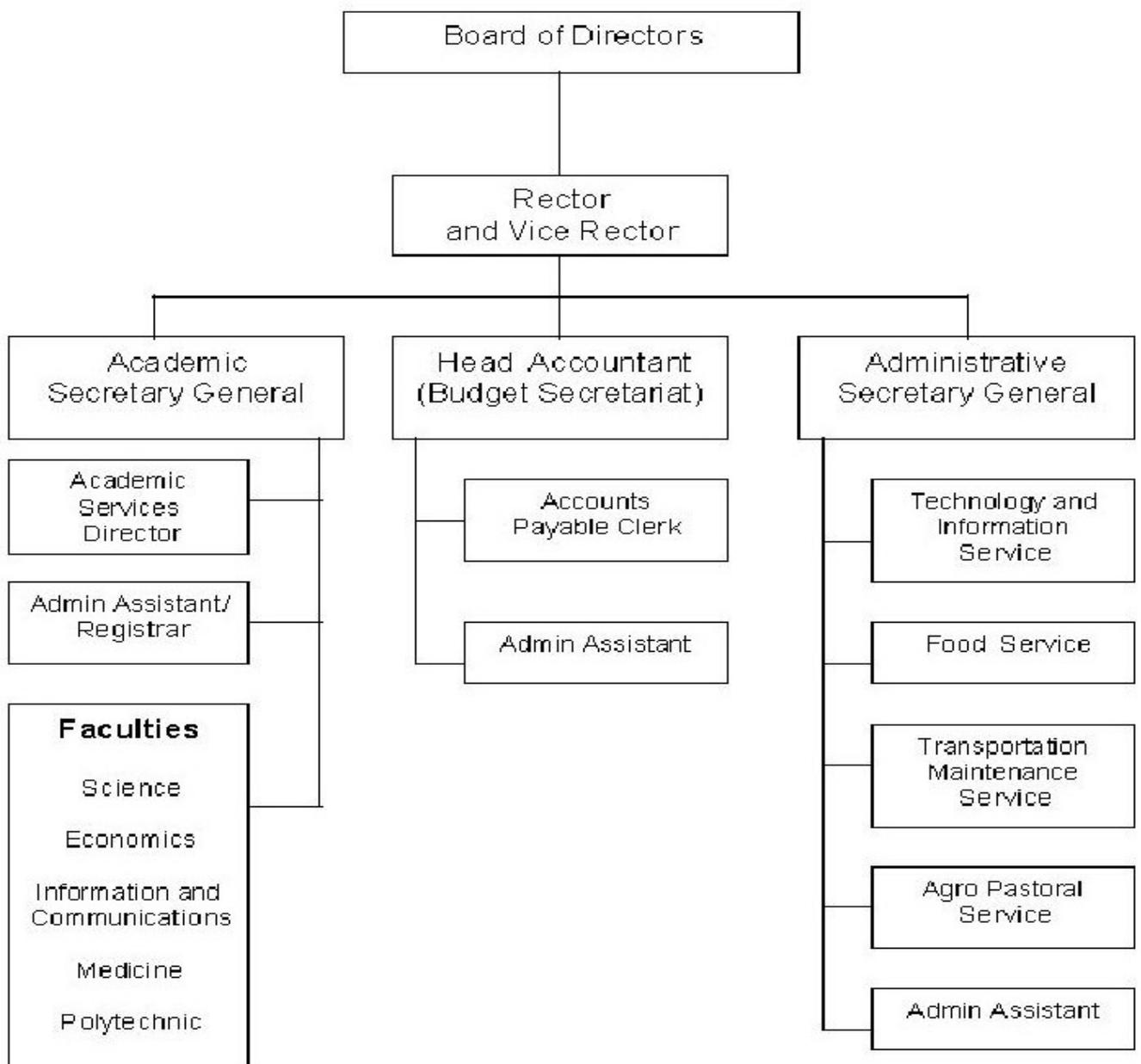


Figure 2. Administrative Structure for the Tayna Center for Conservation Biology



A, Classrooms; B, computer center; C, offices; D; Commissary; E, Dormitories and library ; F, classrooms (interior); G; computer center (interior)

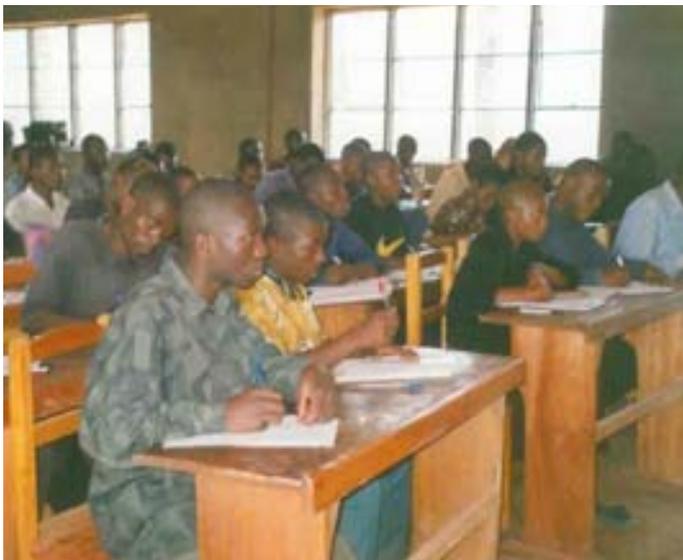


Figure 3. Aerial view of the Tayna Center for Conservation Biology

staff housing, and visitors' quarters (Figure 3).

For the academic year 2008, the TCCB had an enrolment of 375 students (including 29 women), with 91 students from UGADEC projects on full scholarships (food, accommodation, tuition fees, medical care, and supplies); 229 students for whom tuition fees were waived, and 55 students who were self-supporting.

The University offers three-year Bachelor's Degrees and five-year Professional Preparatory Degrees. By January 2009, the TCCB had produced 211 graduates since its inception (130 from the academic year 2008). Of the 81 graduates from 2006–2007, 43 are now employed in professional careers in conservation management, media and teaching (seven women). Plans are underway to employ at least 50 more 2008 graduates.

Other development and alternative livelihoods interventions : Under a DFGFI “Ecosystem Health and Community Development Project”, in 2002, DFGFI began support for the flagship project, the Tayna Reserve, by providing basic support for an orphanage (food, clothes, health care, education, and building repair), small micro-projects for a Widow's Group (initially food care, but leading onto improved seed stock for small plots provided by the community, a pig and guinea pig livestock project, and a soap/oil production project) and support to a Widow's Group (brick-making project). Aid was also provided to rehabilitate and operate several primary schools and health clinics, as well as install several clean-water access projects.

In 2003, Congolese members of the Tayna Project also contributed donations from staff to create a hospital, an orphanage, and a community radio station located nearby the TCCB (Figure 4), a testimony to the commitment of certain staff who donated significant portions of their salaries. The entire complex was hand-built by the villagers of Kasugha – the widow's association pressed and fired the bricks; local craftsmen built all the furniture, doors and windows.

The CI/DFGFI development initiatives were also supplemented and amplified by a partnership created with the Jane Goodall Institute (JGI) in

early 2005 in which leveraged funds from USAID (via EngenderHealth Inc.) were utilized by JGI to provide health and family planning interventions for the community conservation projects of Tayna and UGADEC. As JGI found further funding, it was also able to pilot several development projects near the TCCB: a demonstration fish-farming project, improved seed stock for agriculture, and most importantly, a 37 kilowatt hydro-electric station that is now providing power to the TCCB and the nearby village of Kasugha (Figure 5).

In this isolated region battered by civil war for more than seven years, local people had absolutely no access to health care. To address these issues, DFGFI developed the Ecosystem Health and Community Development Program, and by 2008, the programme had rehabilitated six clinics around two of the UGADEC community reserves, trained nurses, and provided medicines and supplies (with assistance from JGI). For the years 2005–2008, the DFGFI Ecosystem Health Program was also awarded a US\$1,000,000 grant of medicines from Pfizer Pharmaceuticals, Inc. for treatment of intestinal parasites and providing basic medical care (antibiotics, etc). The programme provides rural clinic support contributing basic medicines, equipment and supplies (stethoscopes, rehydration units, locally made beds, etc.), and supporting the training and salaries of eight nurses and two doctors. It is estimated that more than 20,000 people in this landscape are now receiving some form of clinic care compared to the complete absence of health care before the programme began.

These clinics also serve as focal points for a JGI-led Family Planning project, implemented since 2005 in the health zones of Lubero, Pinga and Walikale. In this project, JGI provides a number of interventions, including training to health-care workers, a sensitization programme, technical support, aid in health data collection, provision of contraceptives to maintain stocks at health centres, and rehabilitation of health centres. When the programme began, there were no family planning activities in these three health zones. To date, family planning and reproductive health activities are completely implemented in 70 health facilities. The average rate of contraceptive prevalence is 6 percent, which is a substantial in-



Figure 4. Community Radio Station near the Tayna Center for Conservation Biology (station above, and recording studio below).



A dam with sluice feeds a gravity drop pipe into the turbine station, generating the electrical current. From there, through several transformers, the current reaches the TCCB more than 4 km distance, and also is sent to the village of Kasugha, where it drives public lighting and several micro-projects.

Figure 5. Hydro-electric station (37 kw) serving TCCB, radio station, and village of Kasugha

crease in comparison with the baseline, which is estimated to have been 0.8 percent. For the period 2006–2007, 402 Congolese health professionals were trained, and more than 20,000 local people participated directed in the programme; more than 60,000 people were exposed to reproductive health/family planning messages in the sensitization programme for the region.

The DFGFI Ecosystem Health Program and Community Development Program also seeks to reduce the threat of disease cross-transmission between humans and at-risk fauna (great apes) by analyzing the levels of intestinal parasitism in fauna and humans near protected areas, and providing free treatment to infected people. It contains an educational component targeting hygiene, avoiding parasitism, and enabling the local populace to understand cross-transmission threats, while emphasizing conservation goals. To date, the project has collected and completed faecal analyses for more than 10,000 people from the UGADEC zone; more than 25,000 people were treated and trained in the hygiene education programme.

Malnutrition is rampant in DRC, much of it arising from lack of protein due to the pillaging of domestic animal stock during the civil war. Local stakeholders face a further challenge as they have agreed not to hunt in large tracts of forest as a part of their local conservation projects. A series of projects were thus developed to help reduce malnutrition, providing pig and guinea pig livestock, and improved seed stock for crops such as soy, sorghum, beans and peanuts. The programme is now operational in five villages near Tayna Nature Reserve where the highest percentage of inhabitants is women (many men were killed during the war). Each project is run by an association of local women who choose the projects and manage them. In all of the small animal husbandry projects, a percentage of the offspring are given to community members who have applied to be recipients and the rest are sold. All project participants receive husbandry and animal wellbeing training, and veterinary visits. The produce from the agricultural projects is sold (with the exception of a percentage of the harvest which they donate to a local orphanage), and the profits are split between the women after conser-

ving an amount to cover new grain purchases and heavy manual labour.

Lessons learned

The impact of the university is remarkable and far-reaching. In addition to construction jobs, the local population now has access to doctors, nurses and the health centre's services. Agricultural extension programmes support local farmers, and children have access to primary and high school education. The radio station broadcasts messages to the local communities concerning conservation, politics, music, culture, and women's and family issues. There is now electricity for the university as well as public lighting for the nearby village. However, the University's true value for conservation rests with the students: they are the new generation of hereditary stewards of the land that lies within the Maiko Tayna Kahuzi-Biega corridor. About 70 of the 300 students pursuing degrees at the University are the sons and daughters of the stewards whose land easements form the UGADEC reserves, and they will inherit their parents' responsibility to assure land-use rights in their communities. Without the leadership and vision of their elders, these students – some of the region's best and brightest – would have had limited futures.

While there are other models for higher education capacity building, for example sending students abroad for training, the TCCB is a far more cost-effective approach per student trained: with current operating costs, we estimate the cost of training one student for a three-year degree in conservation biology to be approximately US\$3,000. And of course, it is impossible to put a price on the invaluable contribution the university is making to local pride, and its important links to demonstrating that development can go hand in hand with biodiversity conservation.

University lessons

Lesson 1 – Local communities will participate and contribute to projects they perceive as wholly theirs : During the development of the TCCB, as early as 2003, Congolese members of the Tayna Project NGO contributed donations

from staff to build the local hospital, an orphanage, and the infrastructure for a community radio station at the TCCB, a testimony to the commitment of certain staff who donated significant portions of their salaries (more than US\$15,000). Local community members volunteered their time and labour during the brick-making phase of construction of the TCCB. Members of the nearby village volunteered their time and labour during the construction of the dam for the hydro-electric station, and significantly, they formed a civil corps to repair and maintain the 9 km of road from the main road to the TCCB.

Lesson 2 – Higher education projects can serve as a catalyst to involve women and marginalized peoples in conservation : There has been a strong level of interest from women who wish to obtain university degrees at the TCCB. Although enrolment of men and women has never reached parity, young women are showing strong interest in higher education and conservation training (on average, women account for about 20 percent of the students over the last five years). During this time, there have also been six students who are from Pygmy groups (three are still enrolled and studying).

Lesson 3 – Develop a business plan early and seek multiple funding sources : A large project such as a community-managed university for conservation biology is costly in terms of infrastructural start-up, recurrent operating costs, maintenance, and associated micro-projects such as a hydro-electric station, hospital, and agricultural programmes. On the other hand, it can draw the attention of philanthropists and multi- and bilateral agencies, especially as it demonstrates links to biodiversity conservation and natural resource management. We learned to remain extremely flexible and diversified with funding sources, as some donors cut back funding, while others became interested and involved. The most important tool for this project was a business plan, in which its objectives and activities were described, along with yearly budgets, an acting board of directors, and a plan for financial sustainability. Without this plan, our ability to attract new donors and remain flexible with multiple sources of funding would have been far less ef-

fective.

Lesson 4 – Even in areas with high rates of poverty and security challenges, academic fees can be generated early along the road to sustainability : Although the TCCB has by no means reached a level of sustainable self-financing (plans for a Trust Fund are being developed), in 2007–2008, the university generated more than US\$50,000 in income from students paying academic fees (currently US\$500 per academic year for fees, room and board). For projects such as this, the ability to show community donations, local involvement, and a potential revenue stream is essential in demonstrating to donors that the project can reach sustainability.

Lesson 5 – Seek cost effectiveness : With funding always a challenge, we needed to remain flexible in order to meet national curriculum standards and to ensure sufficient academic teaching staff. For example, as an accredited university in DRC, the TCCB must maintain certain curricula above and beyond their specialty in conservation and biology: economics, information and communications, sciences, medicine and polytechnics. To achieve this, the TCCB has a full-time staff of 18 professors, but invites as many as 40 visiting professors each year to meet standards. This provides a professor:student ratio of between 1:7 and 1:15 during the academic year, and maintains the academic expertise necessary to remain accredited. This is less costly than maintaining all professorial staff as full-time employees, and new professors arriving every few months provide academic stimulation. There are other cost-cutting techniques: a student work-study programme is being developed, in which some students pay their fees by donating time as kitchen and cleaning staff. The technical construction and maintenance staff were all local experts, not expatriates. Although the TCCB has its own library, an agreement is underway with the nearby University of Graben (Butembo) so that TCCB students will also have access to Graben library. An agricultural programme for the students provides garden vegetables for the commissary (scholarship students, employees and professors are provided with meals in a cafeteria along with their accommodation).

Lesson 6 – Build a campus around modules and plan for expansion : The TCCB is a work in progress and there are many continuing infrastructural improvements to be made. Despite this, the main classroom buildings and dormitory were ready for students just eight months after construction began. Once classes had begun, more modules were added as funding became available: a hospital with an operating theatre (also serving the community), offices, kitchen, guest house, computer centre, etc. As recently as 2009, another large classroom was added, supported by a donor who wished to contribute specifically to that initiative.

Development lessons

Lesson 7 – Development activities catalyze more local economic development : Road repair to the TCCB opened local market access and stimulated the local economy. As construction and then implementation took place, local people repaired and continue to maintain a 9 km local road. Trucks bringing in construction materials began to take local produce out to market, and bring in products and sundries that were then sold in local kiosks to the students and staff members of the TCCB. In 2008, the ICCN (The Congolese Institute of Nature Conservation) asked DFGFI and UGADEC to support a rehabilitation centre for gorillas orphaned because of animal trafficking and the bushmeat trade. After external evaluations, the best site was determined to be Tayna Nature Reserve and TCCB. TCCB in partnership with DFGFI, ICCN and the Pan African Sanctuary Alliance (PASA) received a U.S. Fish and Wildlife Service grant to build a gorilla rehabilitation centre. TCCB donated the land for the building of this centre. Local people have contributed to the construction and planning of the site, and TCCB students will be able to learn applied primatology, conservation education, and communication approaches to help combat the trade in young gorillas.

Lesson 8 – With increased development around a small village and university centre, consider advising micro-zoning or building regulations : With a boost to the local economy, increases in paid staff, and even students with pocket money, a flurry of activity began to occur:

small shops and kiosks sprang up overnight at road junctions, small produce stands appeared at every conceivable place along the centre's small road, and a few houses began to appear at sites not really intended for this use. Although it could be tempting to consider this as a natural organic growth of a small village around a university centre, it may have led to a kind of minor, uncontrolled sprawl, clogging roads and paths, creating markets at hospital entrances, etc. Fortunately, the local customary powers and the TCCB administration realized this challenge early, and created some basic zoning rules for a more orderly development of their site. Some of the early kiosks and shops were asked to relocate. This will remain a challenge into the future as more development is attracted into the area.

The question of “magnets”

The TCCB university and nearby village have rapidly evolved into what our DFGFI partner is calling a “Conservation Action Village”, underscoring how a cluster of development incentives are offsetting the opportunity costs of local people creating a community-managed reserve in which 900 km² of forest have been turned into a protected area with full biodiversity protection (i.e., only ecotourism and scientific research are permitted). Here, development is fully integrated with conservation. Local radio broadcasts, primary school and orphanage songs, hospital signs, vehicle logos, even dances at the local discotheque, all celebrate the flagship species, Grauer's gorilla, which is a symbol of biodiversity appreciation and protection, and the local people's magnet for livelihoods, health, and educational development. With this level of success, a typical question is whether this site will draw in more people than it can absorb and, in so doing, will the new arrivals break local law and head into the Tayna Nature Reserve, 7 km west, and undo the progress so far achieved?

To address this important question it is necessary to understand how the Tayna Reserve is managed by a local NGO representing the community (and customary powers) and the investment of that community for more than ten years. First, the TCCB site has been a sacred site for the Batangi people for more than 150 years according to oral

tradition, and the customary powers (Mwami) have a traditional mandate to control immigration into the area. They therefore limit any influx of new families from farther east, but significantly, they have encouraged a few small pioneer families, once located inside the Tayna Reserve, to relocate outside the reserve core zone to nearby Kasugha. Second, the site is steeped in conservation awareness programmes from the children to the adults of the community, and with the rules well understood, and the boundaries for the Reserve well marked, most local people respect and understand the value of the gorilla reserve to their local economy. Third, one of the guide (ranger) stations for the reserve is located just adjacent to the TCCB, and provides patrols and a protection function. Fourth, the original participatory zoning for the reserve provided for a core zone, a buffer zone, and finally a development zone. The entire TCCB complex and the adjacent village of Kasugha were zoned for development from the onset of the programme, and the development zone from the site extends many kilometres east, north and south. To the west, the only direction in which they cannot expand, there is a mountain chain, providing a useful geographical barrier.

Lesson 9 – Careful land-use planning can prevent the phenomenon of magnetization : For the TCCB, and the “Conservation Action Village” developing in its vicinity, the potential problem of an influx of new immigrants was avoided through advance zoning and land-use planning, the participation of the customary powers, and careful site selection. The latter was enhanced by using a site that was already considered sacred by local people.

Summary

A community university initiative can be extremely valuable for capacity building. It is cost-effective and can be a source of local pride, bringing together local aspirations for educational development with conservation objectives. As we have discovered, in providing local people with an initiative they conceived and requested, it can also become a significant catalyst for local economic development. In this case, the TCCB has become a flagship programme, motivating local

people to participate by donating labour and funding, magnetizing other projects such as the hydro-electric station, a hospital, and a gorilla rehabilitation centre. Local people, supported by their customary governance structure, view this project as completely theirs, and an entire new generation is now developing a comprehensive understanding of the value of biodiversity conservation.