Conservation Complexities: Conservationists' and Local Landowners' Different Perceptions of Development and Conservation in Sandaun Province, Papua New Guinea

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For some people, conservation may be the story of saving the world as we know it. It may be perceived as conservationists' continuous battles against gigantic forces such as population growth, extractive industries and corrupt governments in an attempt to save the planet's biodiversity for future generations. For some rural forest dwellers, conservation may be seen as social and economic progress, social change and access to modern commodities. However, a quick look at recent debates of conservation tells the story of rural forest dwellers being dispossessed from their land due to the establishment of protected areas (cf. Kelly 2011; Li 2011), of local disempowerment, and of unrealised expectations (cf. West 2006).

Often, these criticisms are not targeted at conservation as an ideology, but rather derive from failed conservation projects or from statements made by multinational non-government organisations (NGOs), governments or conservationists about conservation interventions being exclusively good (Kelly 2011:683). Hence, a growing interest has emerged in understanding conservationists' practices and interactions with people living in rural areas, as well as studying the complexities that may appear when conservation initiatives encounter local communities.[1] Understanding conservationists' and local communities' different notions of the environment and how it is constructed, represented, claimed and contested may illuminate some of the assumptions about culture, nature and development that underlie many conservation efforts today (West 2006:xviii). This type of study is important in a time when the enhanced global focus on climate change and the environment increases conservationists' moral reasoning in following their environmental objectives and making decisions on local people.

Due to the increased focus on local communities' living conditions, these days most conservation programs integrate development projects. These initiatives are often referred to as people-oriented conservation strategies and take different shapes, scale of operation and modes of participation. Perhaps most common are 'community-based conservation' (CBC) and 'integrated conservation and development' projects (Chapin 2004:20). These projects are conservation initiatives that seek to increase environmental and sustainable development opportunities for natural resource–dependent communities as a way of improving conservation. However, few of these projects have proved to work according to conservation objectives. Some critics blame these conservation strategies for featuring overly ambitious goals and conflicting objectives (see Brechin et al. (2002) for a review of these arguments). Others argue that despite local participation being considered an important component, the level of local participation is often questioned since some projects treat locals as passive beneficiaries rather than active collaborators (Gardner and Lewis 1996; Wells et al. 1992). Furthermore, concepts such as community, territory and tradition, which are worked into various programs at different sites, may not be locally and culturally recognised, hence causing projects to fail due to lack of regard to local contests and political stakes (Brosius et al. 2008).

In Papua New Guinea (PNG), a diverse political and cultural landscape made up of approximately 800 language and ethnic groups adds to the complexity of doing conservation. Cultural misunderstandings and conflicting agendas often lead to many well-intended conservation projects failing to

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meet project objectives (van Helden 2009; West 2006; cf. Filer and Sekhran 1998). This paper looks at some of these conflicting aspirations. While this research may only scrape the surface of the cultural and social complexities that are weaved into conservation programs, it sheds light on the complex processes at stake between a small conservation NGO and the local landowners in Sandaun Province, PNG. I will explore how this particular conservation NGO, contrary to the many failed conservation programs in the country, effectively manages to balance local ideas of development with protecting endangered species through conservation. While the paper presents a positive case where local stakeholders are included in decisions directly affecting their livelihoods, it also includes important critical reflections.

The paper is divided into three sections. Following a presentation of the ethnographic setting, the first section will examine how conservation is understood among local landowners and how these perceptions challenge the NGO in teaching locals the scientific value of the environment. The second section will focus on local ideas of development, how these ideas are formed, and how they may lead to unrealistic expectations towards conservation. In the final section, I will discuss how the NGO balances and overcomes many of the conflicting expectations of development and conservation.

Setting the Scene

In 2001, the conservation-oriented NGO Tenkile Conservation Alliance (TCA) was established in the Lumi area in the southern foothills of the Torricelli Mountain Range (Figure 1). The NGO was set up by locals acting upon an assessment done by the Australian biologist Tim Flannery, who, during his exploration in the province, discovered that the tree kangaroos in the area were critically endangered (Flannery 1998). Since 2003, TCA has been managed by an Australian couple, who over the years have increased the organisation's partnership from 14 villages to 50 local villages. The couple lived at TCA's research station until August 2011 and spent significant

time learning the language and culture of the communities with whom they worked. While the couple is now based in Australia, the director visits Lumi every six weeks and hereby assigns more responsibility to local staff.

Figure 1: Lumi, Torricelli Mountain Range, Sandaun Province
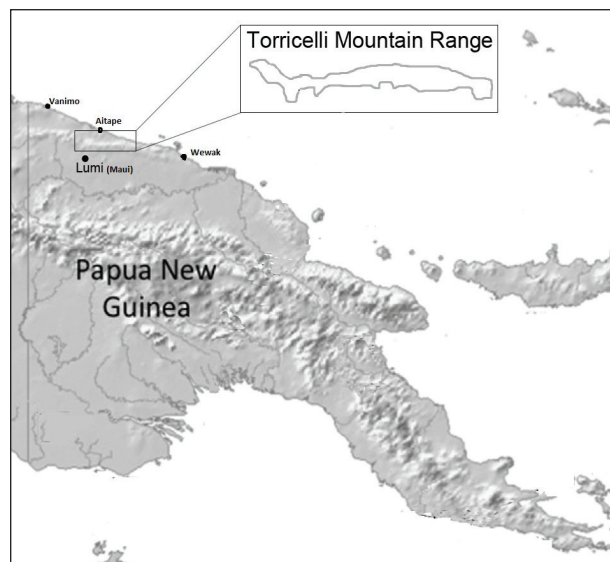
Source: Courtesy of author and TCA

TCA and its partner villages work towards protecting the critically endangered tenkile tree kangaroo, also known as Scott's tree kangaroo (*Dendrolagus scottae*), and the weimang tree kangaroo, also referred to as the golden mantled tree kangaroo (*Dendrolagus pulcherrimus*), and the habitats in which they live.[2] As a small NGO, TCA falls under the category of a CBC project since it seeks to establish a conservation area by cooperating with local people and engaging with community development projects. TCA further aims to provide food security for the local communities through the introduction of alternative sources of protein (such as through farming of rabbit, chicken and fish) and to educate communities about biodiversity, local environmental threats and global environmental problems in order for villagers to manage their resources sustainably (TCA 2012). External funding enables TCA to initiate small-scale development projects, which enhance local support of the program and commitment to

conservation. The largest development project to date was a rural water supply and sanitation program, which provided hygiene training, toilets, and an impressive 243 thousand-gallon rainwater tanks and relevant material to all villages in the TCA program. TCA has further attempted, so far unsuccessfully, to establish a carbon trade project as a way to protect the rainforest while financially compensating landowners.

TCA further seeks to enhance the local economy by employing locals as staff. The staff mainly come from the village of Maui, where the TCA base is situated.[3] People in Maui belong, like the rest of the people living inland from the Torricelli Mountains, to the ethnic group called Wape.[4]

The Wape people are subsistence farmers and practise slash-and-burn agriculture. Hunting for game used to be of significant social importance to men. However, due to decades of population expansion and the 1962 government's grant of shotgun licences, which resulted in over-hunting (Mitchell 1978:8), forest game is substantially depleted. This is especially the case in Maui since the village is close to surrounding villages and has experienced a considerable population growth. In 1979, Maui's resident population was 190 people. Today it is 411 people. Consequently, protein is in short supply and only villagers who can afford the expensive canned meat or fish from the weekly market eat it as a supplement to sago and greens.

The TCA partner villages are divided into tenkile villages and weimang villages depending on the habitats of the two tree kangaroo species. Maui is the only village in the TCA program that does not have any tree kangaroos on its land. Instead, people in Maui claim to be the traditional owners of the land where TCA's research station is based and their participation in the program is therefore regarded as exchanged for using Maui's land. The village only recently became a TCA partner village on terms equal with the villages accommodating the tenkile or the weimang. Consequently, Maui has not participated in many of TCA's training courses and people may therefore have limited knowledge of conservation, rainforest protection, climate change and carbon trading compared with some of the residents of other TCA villages.

Understanding Conservation

While the term biodiversity is central to the meaning of conservation, it has come to constitute a powerful interface between nature and culture. According to article 2 of the Convention of Biological Diversity, biodiversity can be defined as:

> … the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems (United Nations 1992).

To many conservationists and trained scientists from the developed world, biodiversity may be valued according to the contrast between the millions of years it took for the planet's ecosystem processes to evolve, and the planet's wide array of animals and plants, and the rate at which species are now being extinguished by human influences. However, Melanesians often do not share this evolutionary knowledge or desire to conserve biodiversity for posterity (Foale 2001:51). As Simon Foale similarly argues about rural-living people in western Solomon Islands, one reason may be that today many people in PNG embrace Christianity and therefore believe in the creation story in the Bible with God permitting humans to dominate the natural world and use all its animal and vegetable resources for food (ibid:52). While the biblical creation story is often combined with local creation myths, natural resources are believed to exist for human exploitation and consumption. However, due to rapid population expansion, which is an immediate threat to land, gardens, forest game and soil quality, the Wape people are becoming aware of the importance of conserving areas of their land. But while supporting TCA's conservation objectives, not all landowners are willing to give up the right to use and make money from their land the way they desire. Perceiving the forest as in urgent need of protection or valuing it more highly than the financial value of parcels of land or individual trees

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is still illogical to many landowners. This indicates a value system different to that of TCA and the misinterpretation some landowners have of the conservation concept as it is understood in the developed world.

Moreover, due to insufficient science education in school, theories of evolution may be poorly understood and as such hold little credibility among rural people (ibid). Hence, species may not be regarded as having an inherent value and consequently not something to be protected 'for their own sake', which conservationists from the developed world often tend to believe. However, from an anthropological point of view nothing is valuable in itself. A rare species is only valuable because some people ascribe value to it, and often this valuation is made in comparison with other, not so rare, species (cf. Lévi-Strauss 1963, 1966). Hence, to many conservationists the tenkile is not important as an individual animal but important as a species (ibid). In the developed world, endangered species, such as the tenkile, are regarded as special and hold great value due to their limited range. Its status of being critically endangered ranks the tenkile above other species and has led to increased scientific interest and to TCA's conservation program, which influences thousands of people locally as well as overseas (e.g. donor agencies, university and government departments, volunteer programs). To conservationists and scientists, the tenkile is regarded as important to science due to its limited numbers and increased vulnerability to extinction (see also Foale 2001:52). It is by attributing this value to the tenkile and through the species' rarity, uniqueness and irreplaceability that the tenkile embodies what seems to be an anticipated goal for biodiversity conservation. This way of relating species to each other and classifying some of them as endangered is alien thinking to many Wape landowners. The attribution of intrinsic value to species and the problematisation of extinction or deforestation, as taught by TCA, are new ideas about the natural world, which result in TCA often being met with local scepticism when educating new partner villages in environmental conservation.

Consequently, TCA aims to repeatedly educate and raise awareness about the importance of rainforest protection. This is often done through two-day courses at the TCA base where village representatives are educated in the scientific meaning of biodiversity, environmental protection, climate change, ecosystems and the rainforest's distinctiveness in PNG. All courses or meetings held at the TCA base are provided with free accommodation and food including for children and women's travelling companions.[5] While these services are important for TCA to provide, they also make it difficult to fully understand why locals attend these events. Is the attendance driven by an interest in conservation? A desire to receive 'Western knowledge' and be associated with the wider world? Or simply a free lunch? The training courses are based on a thorough review of a booklet made by TCA written in Tok Pisin and English, which village representatives are responsible for reading out aloud to people in their village. After the training course, village representatives are asked to hand in an evaluation report to TCA, which TCA uses to assess how well attended the village meetings have been, and how the food budget for the village meeting was managed. A grading system is used to encourage village representatives to generate a good and village-wide understanding of the booklet's content. Generally people strive for a high mark since it ensures the village's future participation in TCA courses and projects. The courses also include physical activities and games, which combine the theory in the booklet with practical learning. In the final section of this paper I will further discuss what seems to transpire from these training courses, but first I will continue examining the different perceptions of conservation.

The Problem with Conceptualising Nature

The TCA and Wape people's different notions of conservation also derive from opposing traditions of understanding and being in the world. Often rural rainforest dwellers are said to be a threat to their natural surroundings due to their traditional subsistence practices, over-hunting, and population growth. However, these arguments contradict

conservationists' proclamation of locals being 'ecological noble savages' (cf. Redford 1991), and hence reflect an image designed to engender support by corresponding to Western images of rainforest people. Moreover, this conservation approach also reflects a nature–culture dichotomy. This philosophical and historical tradition treats nature as externalised from the social world and something to be protected from human actions. Yet the dichotomy often causes problems when working in non-Western societies, such as among the Wape, where non-dualistic thinking exists and nature instead is seen as an embedded part of one's personal being. While TCA's conservation program may be grounded in this tradition, which seeks to maintain 'wilderness' in its pristine conditions and protect it from human threat, the Wape have an understanding of the social and environmental processes that are immanent to their own world. They may not have an understanding of the scientific value of the tenkile or of forests in a global environmental perspective — that is, as taken out of the social relationships of 'the Wape world'. Conservation, as reflecting the conceptualising of nature and culture, may therefore be difficult to translate and integrate into local perceptions and valuations of the world. Consequently, it often seems to be a challenge when NGOs originating in the developed world imply the nature–culture dichotomy to non-Western societies, since concepts such as conservation, biodiversity or nature may not evoke similar meanings or even exist in these cultures. In fact, people in Maui did not use culture and nature as individual concepts or categories. Words such as 'forest' or 'bush' did not exist in their local language, Olo, and neither did they have a word for 'nature'. Instead, places in the forest would have Olo names, such as *lowbal* being the place where women prepared sago and *malafu* being the deep forest.

New Times

All over Melanesia, people strongly identify with their land and have a marked sense of belonging to a place (Sillitoe 2000:76). Customary land is not only regarded as a resource used to meet subsistence needs, but is also laden with religious and kinship values and relations. However, land is also one of the fundamental factors of promoting economic production, and interference with people's relations with their land is inevitably a prominent feature of any development scheme (ibid). Consequently, this often leads to conflict between landowners and development practitioners, who may have different agendas and ideas about the use of land. Hence, customary tenure is often argued to be a major hindrance to economic development, and some scholars find that in order to reduce poverty through economic growth, customary land tenure must be abandoned and individual titles embraced (Hughes 2004). Critics of this argument, however, consider such assessments to be 'damaging ethnocentric judgments' (Sillitoe 2000:83) and further demonstrate that PNG's agricultural production has expanded under customary tenure and elevated communities' living standards (cf. Fingleton 2005).[6]

Land disputes are also an unavoidable consequence of the TCA program. Old tensions were roused when TCA required landowners to draw up land boundaries in order to map the proposed conservation area. While being aware that land disputes may prolong or hinder conservation, TCA would not get involved with sorting out land disputes since land titles rest in ancestral knowledge and are not inscribed in law. Unlike in many developed countries, land among the Wape is not only an economic asset, but a fundamental aspect of their social and political organisation, and as a result drawing up land boundaries breaks with traditional ways of understanding property rights. This may not only strain relationships with bordering villages but also compromise support towards the TCA program if TCA ignores ancestral heritage.

Like many other Melanesian ethnic groups, the Wape people share a unique social and cultural relationship with the environment through, for example, myths and spiritual beliefs, which continue to influence their relationship with the natural surroundings. While the Wape may profess to be Christian, traditional beliefs in the ability of ancestral spirits to cause sickness and death, in *masalai* (forest spirit) forces, and in other people's

ability to perform sorcery and make poison, still influence Wape identity. Furthermore, while the Wape may believe in a spiritual presence on their land and regard nature as being part of their social being, it is important to stress that these days cultural notions of the environment are being modified with Western influences. With the introduction of capitalism and material goods, expectations of development and progress influence the locals' way of perceiving the environment. Everywhere in PNG, the constant pressure to secure basic needs such as education and medical services, as well as the lack of government attention to rural communities, underpins these expectations of development projects. Flip van Helden states:

> Undeniable … is the fact that the lack of services and development opportunities is influencing the way in which Papua New Guineans view their natural surroundings. Whereas previously the environment was primarily a source of subsistence, in recent years the perception has taken hold that the exploitation of natural resources may constitute a short cut to development (2005:12).

The logging industry's promises of unbeatable income earnings from wood and free infrastructure have demoted conservation to being insignificant and meaningless. Conservation agencies generally do not have the economic resources to fund big development projects and therefore often make use of integrated conservation and development or CBC approaches to interest local people with the economic benefits of conservation, such as ecotourism and bioprospecting (Foale 2012:4). Smaller NGOs such as the TCA also have to attend communities' poor living standards before conservation can be successful. TCA soon realised this after initiation of the program, and hence supplemented their non-economic motivators with small-scale economic benefits such as the alternative protein farming, rice milling, and a water and sanitation project.

The Local Value of the Tenkile

To make conservation seem worthwhile for local landowners and for local landowners to

value an untouched forest more than logging, environmentalists often attempt to attach a monetary value to rainforest products or species. Through carbon trade, for example, the forest's worth is valued by its stored carbon and by the income this may provide the local landowners. To TCA, carbon trade provides the highest economic benefit that a standing rainforest can give its partner villages, and the optimism about initiating a carbon project one day is therefore used as an additional reason for people to protect their forest.

The tenkile is another example of how TCA is attributing a monetary value to a species and making use of capitalist markets in order to form local support. When the tenkile became TCA's 'flagship species' and its presence on villages' land enforced a division between TCA villages and non-TCA villages, its local value also changed. Traditionally, the tenkile was hunted for protein, used in trade for bride price or shared on special occasions such as ceremonies, building a house, planting a garden, marriage, or childbirth (Sullivan 2003:76, 98). Some villages also used the tenkile as healing or rejuvenating food, and some people even considered their ancestors bigger and stronger due to their regular tenkile consumption (ibid:47). Hence, the tenkile was a special source of protein, and it takes part in many village myths and *tumbuna* (ancestral) stories, some of which are now used in land disputes about where the tenkile habitat is. For example, the anthropologist Nancy Sullivan, who conducted research in 2001 among 14 villages that had signed a moratorium for not hunting the tenkile, describes in her report how one village, Maiwetum, claimed that the tenkile only bred on their land and that consequently TCA's research station should be based in Maiwetum. People in Maiwetum did not support plans of situating the base on Maui's land since Maui did not accommodate the tenkile (ibid:39). Being aware that a research station would bring infrastructure, Maiwetum mirrored a general local notion of the tenkile being an opportunity for development.

The newly attributed value of the tenkile and the expectations of development may have been invoked by the biologist Tim Flannery and his

research team as he visited some of the now TCA villages between 1989 and 1992 (see Flannery 1998). As Sullivan states, one village signed the TCA moratorium because they were told that the tenkile was rare, and that researchers from around the world would come to see it, which would result in large-scale development for the area, along with tourism (Sullivan 2003:98). Consequently, the tenkile changed from being valued as a source of protein to being a socioeconomic tool and, through TCA, a connection to the global world. Flannery's interest in the tenkile also raised villagers' expectations of TCA and visits by foreigners interested in the Wape culture or their land (ibid). Sullivan states that during Flannery's stay:

> [People] were rather abruptly lavished with money and attention, and then, just as sud- denly, left like jilted lovers. Several years on, every outsider now represents the prospect of cash, and opportunities they are all the more anxious to avail (ibid:96).

Two villages in particular, which ironically now are home to key TCA staff and project officers, challenged TCA's conservation efforts throughout the organisation's first years. It may be argued that Flannery's visit initiated some of those expectations of financial payment and development that challenge TCA in educating people the scientific value of the forest and biodiversity today.

The tenkile not only brings potential development projects, it also brings monetary income through research or service fees, such as payment for food and accommodation when staying in one of the tenkile villages. The tenkile is, thereby, attributed a monetary value since its presence brings an income to the landowners. Hence, the tenkile enters the capitalist market where its worth is valued in money and its traditional significance is exchanged for potential development. While the tenkile is still ascribed cultural meaning through ancestral stories, there is with the introduction of capitalism now a potential of valuing species in ways that are tied to the capitalist market. That is, endangered species may be valued by locals because of their interest to scientists in the developed world, tourists

and organisations, which may bring revenue and income opportunities. The newly attributed value of the tenkile may symbolise conservation's alliance with capitalism, since in order to protect the tenkile locals request research fees and are offered alternative protein farming and small-scale development by TCA. In this way conservation engages with capitalism to do more conservation and capitalism engages with conservation to make more money.[7] At a local level, the problem with this alliance is that it might disengage people's social, cultural or spiritual relations with their land and forest since it ascribes a monetary value to the environment and casts it as an economic tool for development and social change (van Helden 2005:12; West 2006:185). It may also challenge conservationists in communicating the importance of the environment based solely on its ecological or environmental value. Yet, without the tie between conservation and capitalism, conservation practices would be met by local resistance in rural areas where the need for basic amenities and economic progress are valued, and have to be valued, higher than conserving biodiversity. This thereby places conservation agencies in the middle trying to balance between teaching locals about the ecological benefits of the environment and 'selling' the idea of conservation through development projects or income opportunities.

The Perception of Development

Some scholars argue that the only way to persuade local landowners that conservation is a better long-term solution is to represent it as an alternative form of development (Filer 2000:3). However, this might be difficult without raising local expectations of what 'development' is and the promises of such development's delivery (ibid). Often conservationists expect rural forest dwellers to be satisfied with their subsistence lifestyle and to have limited material and financial aspirations (Foale 2001:46). Hence CBC and integrated conservation and development projects often strive to preserve harmonious and cultural rainforest communities and not transform them into environmentally deteriorating consumer societies. Yet, as this section illustrates, conservationists' perception of

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development may reflect a contrast to rural people's notion of development and progress.

Rot Bilong Divelopmen

Maui's perception of development is first and foremost infrastructure. While the village regards itself as privileged to be close to both an airstrip and a road to the coastal town of Wewak in East Sepik Province, people still wish for a new road over the mountains to the much closer towns of Aitape or Vanimo (see Figure 1). Maintenance of the road to Wewak could also meet some of Maui's aspirations of infrastructure, since the current road is often impassable due to rain, floods and landslides. Despite already having a road, it is not a surprise that Maui's priority for development is to get better infrastructure, which will improve trade routes. In PNG, roads symbolise and materialise connections or relationships between the village and the modern outside world, and are often metaphorical expressions for connectedness and access to development (Dalsgaard 2011:237). Roads, therefore, often exemplify what many rural people regard as 'real development' since roads, like hospitals and schools, are tangible representations of social and economic progress (ibid). Consequently, the Tok Pisin word *rot* for road provides the metaphorical key to almost every thought about development in rural PNG (Filer 2000:2). Furthermore, *rot* can mean a way of life such as *rot bilong tumbuna*, which refers to the ancestors' approach or 'way of life', or it can refer to a way of doing things such as *rot bilong binis* or *rot bilong conservation* (the practice of business or conservation). People, thereby, contemplate and talk about numerous roads when discussing development, conservation or recent changes to their livelihood. While TCA villagers believe conservation is a *gutpela rot* (a good road), so is a road to the coast, even if it may problematise biodiversity protection along the stretch of the road. To Maui, a road will connect locals to the coast where they can trade local products and buy store goods for a cheap price. It can further bring people, potentially even tourists, to Lumi and the road thereby ties the local concept of development

with desires of economic progress and involvement in global markets.

PNG's rugged and mountainous terrain makes it difficult and expensive to build infrastructure and consequently many roads in PNG are built by logging companies rather than the PNG Government. Unfortunately, when the logging company leaves the area many of these roads quickly become unserviceable due to the lack of maintenance and heavy rains in the wet season (Filer 2000:2). The logging companies' promises of roads and high economic rewards challenge TCA and other conservation NGOs in convincing people that logging roads are only temporary and that people should choose the *rot* where the long-term benefits are greater, despite the short-term sacrifices (ibid). This 'advice' regularly frustrates landowners because they feel conservationists discourage them from obtaining wealth. The conservation NGOs are consequently faced with what has been articulated as 'conservation blackmail', where people use signing of logging deals as a threat to claim development from the conservation NGO (Foale 2001:50).

TCA acknowledges the importance of infrastructure for the locals and regards roads as a way to increase protection of the rainforest since roads enable people to participate in and make an income from markets. This allows people to purchase protein, which may reduce their need for hunting. TCA, therefore, supports feeder roads to the existing road to Wewak, but opposes the local desire for a new road over the mountains since it would result in deforestation and have a damaging effect on wildlife. Hence, TCA villagers' expectations of development need to be in accord with conservation objectives, which may mean that local expectations of development are not met. It is often a challenge for CBC projects to combine development and conservation as two concepts, which separately may be associated with two often conflicting ideologies: one protecting biodiversity and sustaining healthy ecosystems, and one associated with the economic, technological, social and material improvements seen in the industrialised world.

Local Expectations of Development

As indicated above, locals' perception of becoming modern is based on expectations and ideas of material improvement, social progress and global convergence. The road is expected to bring economic growth and presents a glowing path of modernity and material development. The fantasies, beliefs and imaginaries incited by these ideologies contribute to the local perception of development. Similarly, Wolfgang Sachs describes development as:

> … a perception which models reality, a myth which comforts societies, and a fantasy which unleashes passions. Perceptions, myths and fantasies, however, rise and fall independent of empirical results and rational conclusions; they appear and vanish, not because they are proven right or wrong, but rather because they are pregnant with promise or become irrelevant (Sachs 1996:1–2).

It is this 'pregnancy of promise' that seems to feed Maui's perceptions of development, and forms local expectations of progress and social change. With the national government's failure to address the social and economic problems of rural communities, many villages in the Torricelli Mountains regard TCA as their immediate and only opportunity for development. Among locals, TCA is considered as occupying the role of government by allegedly being responsible to develop a market, which can bring social and economic improvement (cf. West 2006). While it is necessary for TCA to maintain its good relationship with the local and provincial governments, TCA is also beneficial for these bodies since it reduces their role in the delivery of services.

While local people wish for fast development, they are often regarded by TCA as passively waiting for development to arrive. The local passivity, however, is not to be confused with their frustration or lack of aspirations for development. It is better understood as a combination of colonial legacy, influence of the Catholic Church and the community's social and cultural history. In his work with the Gebusi people in Western Province, Bruce Knauft describes how the remoteness, economic marginality and lack of government services require Gebusi to patiently wait (Knauft 2002:39). While the Gebusi often are confronted with more wealthy and educated Papua New Guineans through, for example, church services, Gebusi have learned to passively wait and accept the authority and knowledge of others. Similarities can be drawn to people in Maui, who patiently wait for the priest to guide them through spiritual progress, the schoolteacher to compel them to educational progress (ibid:40), and the cocoa buyer to give them the money of economic progress. Patiently people wait for the government officials, who during speeches on Independence Day promise change and infrastructure, and TCA, which announces prospective development projects such as carbon trading.

As mentioned, TCA often associates Maui's 'patience' with lack of engagement, and partly blames the Catholic Mission's handouts for people's constant expectations of development. The handouts refer to the mission's conversion of people to Catholicism, which included providing clothes and building schools. Lumi used to house a government station, and the handouts thereby need to be seen in light of the colonial administration, which built offices, a hospital and reopened an airstrip. In this sense, Maui experienced rapid change from 1948 until independence in 1975. However, when the government station closed, Lumi was left with a skeleton of empty offices and distant promises of further change. The material development that once seemed to arrive so easily and gave people hope of social and economic improvement was perceived as stagnant until TCA was established in 2001. Now TCA resembles a new hope for progress to its partner villages, and the organisation is therefore often met with similar expectations of fast development or rapid change, which people experienced prior to independence. To overcome the constant expectations and requests from people and to change the passivity that some villagers allegedly exhibit, TCA requires that people take the initiative and show involvement in projects;

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for example, by paying a percentage of the cost of the provided water tanks.

Knauft calls this passivity and patient waiting for the influence of external authority figures 'recessive agency', and discusses its prominence in marginal areas where locals engage with modern institutions and their agents (Knauft 2002:243–47). He argues that the problem is the Western construction of self-assertion as a motivating force of social action. Hence, the Western notion of agency is often thought of as being an individual, autonomous and energetic personal actor (ibid:245). This notion could explain TCA's disappointment with Maui's passivity and lack of ambition when the village did not show any initiative in learning how to use TCA's rice-milling machine. A few years ago, a rice mill was sitting at the TCA base for months without people from Maui asking to borrow it or how to use it. Consequently, the rice mill was handed over to another village, where the villagers were successful in growing rice and starting to earn a good income from their produce. To TCA's frustration, Maui later asked for a rice mill. One explanation for this request could originate in the radical equality that traditionally formed Wape society and where no person was permitted to amass more wealth or power than anyone else (cf. Mitchell 1978). Today, great disparities have arisen in villagers' income and status, yet the ethos of equality still exists. The fact that TCA gave another village a rice mill, which proved to be economically beneficial, may have led to perceived inequality and thereby to Maui's request for a rice mill. While the request may be argued to be a sign of Maui showing initiative in a rice-milling project, TCA regarded the request as lack of ambition since people in Maui had shown no interest in learning how to use the rice mill in the first place.

The presumption of agency deriving from autonomous and active actors originates in Western notions of personhood and personal progress more than from universal patterns of human relationships (Knauft 2002:245). These assumptions have been criticised in relation to Melanesian notions of personhood and identity, which, rather than being based on Western individuality, are argued to be the results of social relationships with others (cf. Strathern 1988). Marilyn Strathern's conception of the 'dividual' person has been particularly influential in this argument (ibid). In brief, Strathern argues that Melanesian personhood is constituted through the act of exchange, in which agency is also formed. The 'dividual' self is then shaped by composite parts of personhood received in exchange with other 'dividuals'. This concept of personhood, therefore, stands in contrast to Western individuality (ibid). Yet, modern institutions such as churches, schools, even TCA, place high value on individual responsibility and self-discipline. Knauft states that the new variety of choices and alternatives that come with progress are followed by expectations of success in modern areas such as holding a wage-earning job, passing school exams, and being involved with TCA (Knauft 2002:246). Because modern success is valued against Western individuality and not social relationality, success in modern areas is often unattainable due to the alleged passivity that modern institutions or activities foster (ibid). Knauft argues that the problem is not to classify the modern response of local people as passive, lazy or lacking initiative as if it were due to personal deficiency. Rather, it is to acknowledge how the structure of Western development initiatives or modernisation incorporate ideological features, which produce this so-called passivity when working with sociopolitical, economic and cultural marginalities (ibid).

Another reason why TCA may regard locals as passive is due to locals' articulations of development being something to get rather than a process or something to become. These articulations reflect the local perception of development as being part of an exchange where people *kisim divelopmen* (receive development) in return for conservation. This objectification of development as something to *get* opposes TCA's perception of development as being a slow progress and the result of locals' hard work. The local notion of development being an exchange object, or a gift to receive in return for another gift — the tenkile — further generates local expectations as to how and what development should be. This affects the relationship between TCA and its partner

villages because in order to achieve conservation as TCA sees it, locals cannot get development as they themselves see it (see also West 2006:217). The different notions of conservation and development may consequently lead to misunderstandings and conflicting expectations of the TCA program.

Unexpected Development

Local notions of modern life often seem to rest on unrealistic perceptions of development and social change. Referring back to Sachs's description of development as being a myth, which comforts society and a fantasy, which unleashes passion, local imaginaries of development seem to encompass an almost magical aura. 'Development' is perceived as economically and socially changing community life for the better with no negative consequences or concerns. Consequently, development causes frustrations when, rather than eradicate local poverty and marginality, it challenges social structures in the village. To illustrate how development in some areas may be argued to have marginalised Maui rather than connecting the village with the global world, I will briefly return to the local desire for a road. Here, anticipation of the income earnings the road could bring overshadowed the potential risk of it also bringing *raskols* (criminals) to Lumi. Furthermore, Maui regards itself as the first village in the area and, therefore, the ancestral owner of a large part of the land and forests surrounding Lumi. When the Catholic Church opened a mission and the colonial government established a station in Lumi, which is believed to be on Maui's ancestral land, Maui further regarded itself as a rural centre. However, as the government station closed and coastal towns expanded, new desires of social and economic progress were introduced. The coastal towns now reflect modern lifestyles with shops, cafes, hotels and banks and are compared to the less-developed rural communities. While Maui still regards itself, and Lumi, as the rural centre, the lack of a proper road from Lumi to the coastal towns has moved Lumi, and Maui, from being a district centre to the periphery. In order for modern life to be accessible, a road must connect the village to the towns, and in this way rescale the hierarchy

of the centre and periphery and bring them closer together (Dalsgaard 2011:238). 'Development', however, has not delivered the road, nor maintained the existing road, which is fundamental for Lumi to reclaim its centrality and to bring social and economic progress to Maui. Moreover, development has not arrived in the locally imagined form, hence subjecting Maui to the sometimes countervailing perspectives and practices of modernity. Unrealistic or naive perceptions of progress and change further complicate the social exchange relationship with TCA since they raise expectations that TCA cannot fulfil.

The Practices of Tenkile Conservation Alliance

As shown above, conflicting aspirations between TCA and the local communities challenge TCA in reaching conservation objectives. Yet TCA has effectively overcome a majority of these issues and continues to gain local support and initiate new partnerships with local villages. This section looks at how TCA integrates, overcomes or balances the different notions of conservation and development in its aim to protect the tenkile and establish a conservation area.

Local Support

In order to form local support and win the trust and confidence of perhaps sceptical local communities, learning from and respecting local realities are pivotal in any CBC or development project (Agrawal 1995:415; Wells et al. 1992:47). Lack of attention to rural communities' social and cultural complexities in the early stages of projects regularly jeopardises progress. Often project planners are criticised for ignoring local participation or for not making use of ethnographic knowledge at the planning stage (Foale 2001; Gardner and Lewis 1996:63, 67). Sullivan's research (2003) among the 14 villages that signed the TCA moratorium in 2000 provided TCA with perhaps crucial understanding of some of the cultural and social intricacies the organisation could encounter and needed to consider from its implementation stage. This knowledge helped TCA in forming a general understanding of the Wape, which the managers

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have used in their interactions with locals in order to strengthen support and participation.

As previously mentioned, locals' support of conservation includes immense expectations to what conservation and TCA should bring about. As in many other rural communities in PNG, people's limited knowledge of saving money and banking results in people not fully understanding how TCA's limited funds restrict the organisation's ability to meet local expectations. Since TCA's research station has grown to encompass many of those things locals regard as development — such as electricity, computers and a storeroom full of canned meat — it is necessary for TCA to often remind people that everything is funded by external agencies, and how important these agencies and the technologies at the TCA base are for TCA to function.

In order to emphasise the organisation's reliance on external agencies, and to avoid raising unrealistic expectations, TCA finds it important to show complete transparency. This includes information or 'awareness' of all potential projects, funding opportunities and possible challenges.

One such project that TCA informs locals about and is hopeful will generate local support is carbon trade. This concept was introduced to Maui by TCA in 2007 when the global investment banking and financial services organisation Macquarie Group approached TCA to enter a carbon trading partnership through the voluntary market. Despite establishment of carbon plots[8] and training courses in carbon trade and climate change, the Macquarie Group withdrew due to an unstable political climate in PNG (cf. Filer and Wood 2012). Maui's knowledge of carbon trade is therefore limited, yet people have not given up the confidence that the initiative will earn them large amounts of money in the future. Hence, people are proud of their carbon, or what they think to be 'fresh, cool wind', which they perceive as a natural resource in line with assuming gold, oil and gas deposits. This local perception of trading the *win* (wind) for money has throughout PNG formed carbon trading metaphors such as 'sky money' (Leggett 2009) and a 'carbon cargo cult'[9] (Kelola

2010). These metaphors refer to the expectations of development and money falling from the sky without people having to work for it. TCA villagers have been told that carbon trade requires solving existing land disputes and cooperation with fellow landowners in looking after the forest. Upon the information given by TCA as well as the expectations and rumours of carbon trade, locals have started engaging in (or solving) land disputes, discussing land boundaries and how to spend the potential income earnings. It was believed that by doing this they (as being part of TCA) would attract potential carbon trade investors. Hence, the question remains: if being transparent and upholding local ideas or expectations of carbon trade will capture the attention of investors, or whether it will just add to locals' expectations and anxious wait for development.

Regardless of the outcome, TCA believes that transparency provides the greatest trust in the organisation and reinforces local partnerships. This approach differs from the many cases of the often corrupt and secretive logging industry, which rarely involves locals in its plans, hence leading to scandals and local riots. By reminding people of loggers' approaches, TCA conveys a strong boundary between the murky logging industry and 'clean' local-oriented conservation.

In the TCA program, locals are often part of the decision-making process as it is a known long-term goal that locals will fully manage the organisation one day. Although full management of TCA may be several years away, the goal fosters a sense of ownership, which strengthens the local support and cooperation since people feel they are part of the organisation's 'success'. Here success is measured in increased funding and local partnerships, improved capacity building and increased tenkile population. The sense of ownership has proved to have an empowering effect on people since they often associate TCA with the benefits of the larger world. Knauft argues that with the desire to pursue a Western lifestyle, people living in the margins often give value, status and meaning to institutions or organisations that are associated with a wider world (Knauft 2002:7). People in Maui, for example,

felt empowered by being part of the TCA program due to the knowledge they gained and accordingly passed on to non-TCA villages.

Resistance Towards Tenkile Conservation Alliance

Some scholars argue that exclusion of at least some people from access to resources and valued land is necessary for any sustainable, progressive project to happen (Hall et al. 2011). The exclusions are often legitimised in the name of the common good such as restricting people access to land for the protection of the tenkile or the weimang. But the common good also promotes exclusionary outcomes in other sites such as the villages that cannot be part of the TCA program. Jealousy, threats, disputes and resistance towards conservation from non-TCA villages are unavoidable when working with and among rural communities, which have cultural and political variations. Less apparent are the internal divisions within the TCA villages themselves, which also form small pockets of resistance or dissatisfaction towards TCA's conservation approaches.

As previously mentioned, some scholars argue that CBC projects are often based on a simplistic view of the communities that the project intends to cooperate with (Agrawal and Gibson 1999; Foale 2001:48; van Helden 2005:35). The ambiguity of the term community is criticised for implying romanticised tones of small unified localities with a homogenous social structure where people share a sense of commonality (Agrawal and Gibson 1999). In many instances, however, such a view of local communities does not conform to reality and the organisation consequently fails to attend to the differences within communities. This may affect interactions within and between communities, and local politics, as well as prolong full community commitment and participation (ibid:633). Each community comprises a potentially large number of different, partially overlapping, social groupings such as clans, subclans, family groupings, youth, women, business groups and church groups, which may encompass multiple interests and actors. In Maui for example, one of the village's five clans was noticeable in its relations with TCA. Members of

this clan felt they were not being fairly reciprocated for TCA's use of their land and requested financial compensation of 2 million kina. With the support from the other clans in Maui, TCA has been able to continue its work without addressing the request. It turned out that the same clan requesting payment from TCA was involved with genealogical and ancestral disagreements with the other clans, and TCA was inevitably drawn into existing tensions in the village. The tension between TCA and one of the clans in Maui illustrates the different social complexities TCA needs to constantly consider. On one hand, TCA is required to fulfil the obligations of the social relationship with the clan since they are believed to be the customary landowners. On the other hand, paying the clan any money for using the land risks portraying the conservation program in economic terms, which may elevate local expectations of further economic benefits. While it is not uncommon for projects to get drawn into old conflicts between clans or groups of people (van Helden 2005:36), TCA may eventually need to address these internal differences and engage in micropolitics as it could influence decision-making in the village and, thereby, the village's overall participation and cooperation with the program (cf. Agrawal and Gibson 1999:630).

Economic and Social Relationships

In order to ensure a sustainable future for the villages in the TCA program there has to be an economic benefit in supporting conservation, since people long for social and economic progress and may not stop hunting or change gardening patterns before alternatives are initiated. However, in order to aim for social relations rather than economic dependency and expectations, TCA do not pay villagers directly for conserving their land or the tenkile. Instead, small economic benefits are provided for services such as accommodation, cooking or carrying luggage during patrols in the mountains. These short-term benefits sustain TCA's credibility locally and assist in overcoming potential distrust (see also Wells et al. 1992:47). Moreover, the social relationships are supplemented with minor economic benefits so that TCA can continuously be regarded as potentially doing the locals a favour,

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not the other way around. This illustrates the complexity of TCA's role since the organisation on one hand provides economic benefits, while on the other hand expects locals to take action themselves.

While economic relationships may be quick to establish, social relationships take a long time but are of key importance in conservation projects in PNG (cf. West 2006). TCA's strong partnership with villages is partly generated by the managers' long presence in Lumi — a practice that opposes the general criticism of conservation agencies spending the majority of time in town offices away from the conservation area (Foale 2001:49). The latter forms an inevitable divide between conservationists and rural communities, which may further cause local distrust towards the organisation. By being part of the local environment at the project site, making multiple visits to all villages in the program, repeating training courses and providing people with a sense of ownership of the organisation, TCA has been able to establish important social relationships with the locals. Social relations have strengthened the local participation in decision-making, and the ethnographic research used in planning and implementation stages has contributed to TCA's understanding of local social, political and cultural complexities. These approaches may have assisted in developing conservation effectively among TCA villages, but are not the only strategies at work since a complex network of actors is included, stretching far beyond the Torricelli Mountains locale. Government bodies, international development or conservation NGOs and multiple donors' agendas, expectations and deadlines are also key actors in making TCA work. Moreover, successful CBC projects cannot alone conserve biodiversity. Other parameters such as legislation, policy making, patterns of resource access and support from government agencies are also needed (Wells et al. 1992:61).

There may not exist a universal formula of how to convey conservation or rainforest protection to rural communities, nor does TCA make use of innovative or ground-breaking approaches unfamiliar to other conservation programs. TCA's approach to CBC is perhaps effective because it frames a wide set of conservation approaches or strategies, which have proven successful among the Wape. Therefore, there may be no guarantee that TCA, using the same approaches, would work in another PNG setting as different local cultural and social complexities may require different conservation and development strategies.

Conclusion

Many complexities appear when conservation initiatives encounter forest-dwelling communities. Different ideas, expectations and perceptions of conservation challenge conservationists' objectives of protecting endangered species and valuable rainforest. The Wape peoples' relationship with the environment is tied up in complex social relationships and may depend on ancestral relations, of exchanges in the past and on spirits inhabiting the land. To take rare animal or plant species out of these social relationships and value them according to evolutionary science is foreign thinking.

In order for villagers to make informed choices regarding their land, TCA educates locals in the scientific value of biodiversity and the importance of protecting the rainforest. As this new knowledge may not be sufficient for locals to support conservation, TCA also initiates small-scale development projects. Seen in light of peoples' struggles to secure basic needs such as education and medicine, these projects are necessary and further increase the interest in engaging with conservation. By initiating development projects and creating income opportunities through conservation, some scholars argue that conservationists emphasise the monetary value of the environment over its subsistence, cultural and spiritual values. This may be problematic since conservation cannot package development activities that can compete with logging companies' high economic benefits or promises of infrastructure (van Helden 2005:14, 22). Instead, conservation may only be secured if landowners see the environment as valuable for its own sake. TCA therefore constantly needs to balance between making conservation attractive through

development or monetary benefits, and teaching people the environmental value of biodiversity. Excessive monetary income from conservation may raise locals' expectations of further economic benefits, while insufficient development may cause resistance and increased interest towards logging companies' promises of infrastructure and high income earnings.

In a society where reciprocity is fundamental, modern institutions such as TCA are likely to be understood within the same social dynamics. TCA villages' participation in conservation and protection of the tenkile is therefore locally considered to be in exchange for economic and material progress. TCA, however, see the cooperation as a participatory process where locals need to show initiative and interest before development projects will be instigated. Moreover, TCA perceives development as a slow process and in the form of a means for people to create their own development — for example, one of the objectives with rabbit farming was that people could breed the rabbits and sell the meat or fur to make an income. People in Maui understand development as technological improvement and economic, material and social progress and often expect it to be a fast process.

TCA's training courses may not live up to locals' expectations of development, yet these were highly enjoyed and people often felt empowered by the new knowledge. But one may ask — what was this knowledge exactly? Scientific knowledge? Bureaucratic knowledge of writing and reading? Knowledge associated with the wider world or merely 'white people'? And more importantly: why did people trust it? By asking these questions and by demonstrating how different classification systems, ideas and expectations constitute complex conservation processes, this paper may lay the groundwork for future research. Further study of the cultural influences such as how village and leadership structures affect people's receptiveness towards the new knowledge TCA provides would perhaps add to the understanding of how TCA overcomes the different notions of conservation and development. For now, this paper examined

how conservation and development are locally understood, how these understandings are balanced by TCA's own perceptions of these concepts and how TCA's conservation program worked effectively among the Wape people. Whether TCA can be regarded as a success is a moral judgement; however, it may present a positive example of how participatory measures can be taken to ensure local stakeholders are part of the conservation process.

Author Notes

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Acknowledgements

Endnotes

1   While being aware that the term 'conservationist' is applicable to people from all over the world, in this paper I use it to refer to conservationists or scientifically trained people from developed countries.

2   Since the tenkile tree kangaroo gave name to TCA, I will in this paper mainly use the tenkile as an analytical tool to understand how conservation, development and the environment are perceived and valued. Using the weimang tree kangaroo to assist my analysis would lead to similar conclusions.

3   While the ethnographic material on which this paper is based was largely gathered in Maui village, my analysis also derives from experiences, perspectives

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and observations from other people either directly or indirectly involved with TCA.

4 Ethnonyms for Wape include Wapi and Wapei.

5 Due to fear of spirits and *raskols* (criminals), women never travel alone. Since walking with a non-relative male is frowned upon, TCA female representatives are often accompanied by female relatives when attending meetings at the TCA base.

6 See the debate between Hughes (2004), Gosarevski et al. (2004) and Fingleton (2005).

7 The link between capitalism and conservation has made some scholars refer to conservation as being neoliberal in that conservation projects occupy land the same way that development or industrial projects do, reduce state influence, create labour, and promote nature as an opportunity for profit and economic growth (see Brockington and Duffy 2011; Igoe and Brockington 2007).

8 Carbon plots are small areas of land, created so that people can measure the diameter of tree trunks to calculate the overall carbon stored in the forest area. TCA would compare these ground facts with satellite assessments.

9 The articulation of 'carbon cargo cult' is here referenced from an article in the national newspaper, *Post-Courier*, exemplifying how the concept of cargo cult, as reported by the PNG media, is used with connotations of backwardness and locals' endless anticipation for development.

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