

Managing beyond designations: supporting endogenous processes for nurturing biocultural development

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Abstract

Over the past decade the concept of biocultural diversity has emerged in scholarly and policy circles as an acknowledgement that biological and cultural diversity are interconnected and interdependent, and equally threatened. A significant portion of the world’s biocultural diversity is found within indigenous territories, where indigenous peoples have historically managed a coevolutionary relationship between their communities and their land. This suggests that endogenous processes within indigenous territories are important for a continued nurturing of biocultural diversity. Emerging designations used for conservation of biocultural diversity can be useful, but by themselves are unable to protect the ongoing relationships and processes that create and nurture the diversity. In this paper, we argue that it is important to move beyond conservation-driven management models towards models that support endogenous processes. Designations for biocultural diversity, accordingly, need to recognise that people, biodiversity and place are best managed as an interconnected whole, and actively support the well-being and self-determination of indigenous peoples. We use examples from Panama (indigenous Kuna Yala territory) and New Zealand (Mataura Mātaaitai Reserve, Southland) to reflect upon the ongoing role of endogenous processes and how they interact with exogenous designations. Through the case studies we illustrate the importance of contextualising our understanding of biocultural diversity as part of endogenous development to recognise wider issues of indigenous rights. Finally, we offer some lessons for managing beyond designations and supporting endogenous processes.

Keywords: endogenous development; self-determination; indigenous peoples; interconnected; conservation; biocultural diversity; Kuna Yala; Mataura; mātaaitai

Introduction

The concept of biocultural diversity is relatively new to the conservation sector. In scholarly circles it is defined as: ‘diversity of life in all its manifestations – biological, cultural and linguistic – which are interrelated within a complex socio-ecological adaptive system’ (Maffi 2005, p. 62). Recognition of the inextricable link between biological and cultural diversity is now beginning to influence conservation models, creating a movement towards biocultural approaches. For some, this move signifies a ‘paradigm shift’ to more inclusive and people-centred approaches to conservation (Kothari et al. 2008, Kothari 2009). They incorporate learning from the negative impacts of creating national parks in areas inhabited by local and indigenous communities (e.g. Colchester 2004, West et al. 2006), which, in extreme cases, led to eviction and displacement of indigenous peoples from their ancestral territories (Brockington and Igoe 2006). Indeed, as Agrawal and Redford (2009) point out, the assumption that local people invariably impact negatively on wildlife needs to be rethought in terms of both conservation management and social ethics.

A consequence of the movement towards people-centred conservation is the recent creation of conservation designations by international bodies, which recognise (at least in theoretical and policy frameworks) that communities play an important role in conservation efforts (Allen et al. 1998, Borrini-Feyerabend et al. 2004, Kothari 2006). For example, the International Union for Conservation of Nature (IUCN) Category V Protected Areas and associated 'protected landscape approach' (Brown and Mitchell 2006) represent a designation to protect and sustain important landscapes/seascapes and associated nature conservation and other values created by interactions with humans through traditional management practices (Phillips 2002). Other international designations that recognise similar interconnections include United Nations Environmental Science and Cultural Organisation's (UNESCO)'s Cultural Landscapes (UNESCO 1996) and the Food and Agriculture Organisation's (FAO)'s Globally Important Agricultural Heritage Systems (GIAHS) (FAO 2010). Biocultural designations are also becoming apparent within national frameworks. For example, Mātaitai fishery reserves in New Zealand recognise the links between fish species and cultural harvesting practices (Memon et al. 2003, Bess and Rallapudi 2007). Another example comes from Japan, where environmental legislation recognises a relationship between people and land and provides for conservation of the resulting 'Satoyama' landscapes (Takeuchi et al. 2003). The aim of these emergent designations is to conserve biocultural diversity.

A considerable portion of biocultural diversity today is found where indigenous peoples continue to live in ancestral territories: the Amazon Basin, Central Africa and Indomalaysia/Melanesia are all core areas of global biocultural diversity (Loh and Harmon 2005). These core areas of biocultural diversity, however, are often characterised by contested indigenous territorial rights, where many local communities continue to face challenges around land dispossession and large-scale development initiatives (United Nations 2009). Despite these challenging contexts, indigenous peoples and local communities continue to foster positive relationships between people and natural systems and so nurture biocultural diversity.

In the South Pacific, for example, communities manage a large proportion of fisheries (Govan et al. 2006), and Molnar et al. (2004) estimate that 11% of the world's forests are under community ownership and administration. In these areas, indigenous communities manage land and people through locally defined governance processes. However, these indigenous community governance processes often conflict with national systems of governance and development. Moreover, their overlap with the geographical focus of biocultural conservation initiatives creates tensions that are not well understood and often excluded from analysis of biocultural designations. While a movement towards designations that recognise people-centred approaches to conservation of biocultural diversity is positive, such designations do not always work to safeguard either biodiversity or the well-being of local peoples.

Because some of these designations favour biological conservation values, their application in practice may undermine the spiritual, cultural and linguistic values held by local people. These values are central to maintaining ongoing localised interactions between people and ecosystems, nurturing the indigenous cultural systems that are so intimately connected to local biological systems. Thus, in some cases the use of poorly considered designations can be counter-effective to conserving biocultural diversity (e.g., Agrawal and Redford 2009).

In this paper we aim to deepen understanding of the underlying community processes that nurture biocultural diversity, illustrating that as they are rooted in historical interactions of people and nature, their goal is the self-determination and well-being of communities within the environment in which they live. Understanding and supporting the self-determination of indigenous peoples (recently recognised as a universal right through the United Nations Declaration on the

Rights of Indigenous Peoples, adopted in 2007) is therefore an important strategy for ensuring that biocultural diversity continues to be nurtured. We begin by building our argument for the central role that endogenous processes play in conserving biocultural diversity, and illustrate that designations are secondary to this. Then we use two case studies as vehicles for analysing the interplay between endogenous processes and designations for conservation of biocultural diversity within indigenous territories. Finally, we synthesise the analysis presented through the case studies and offer some concluding remarks about how, practically, to support endogenous processes that nurture key biocultural diversity hotspots in the world.

Endogenous processes and designations

We use the term endogenous processes to refer to the spiritual and cultural worldviews and livelihood practices that support indigenous and local communities and their wider environment. These processes have developed through historical interaction between people and the ecosystems they inhabit, and include social organisation, spiritual engagement, economic relations, knowledge production and sharing, and collective governance. Our employment of the term endogenous follows the use it has been given by initiatives that support local development and critique externally driven development, such as the COMPAS international network for supporting endogenous development (Haverkort et al. 2003) and rural development models in Europe (Ray 1999; High and Nemes 2007). By 'endogenous' we do not wish to convey a vision of locally isolated processes, but rather to emphasise the important role that locality and territoriality play in defining identity in both cultural and ecosystem terms within an interconnected world. In fact, as Haverkroft and colleagues (2003, p. 27) define it, 'Endogenous development is an approach that takes place complementary to the ongoing global processes, and can thus be seen as an effort to bring together global and local knowledges'. Today's globalised world is one in which geographical and temporal scales are highly interconnected (Robertson

1995), and making clear distinctions between local and global, and endogenous and exogenous, is problematic. However, our use of the term endogenous enables recognition of territoriality and locality. This is important for supporting indigenous communities and territories, especially in an often over-globalised analysis which tends to homogenise the local and ignore its particular context.

Besides being grounded in territory, endogenous processes are also rooted in an indigenous understanding of the cosmos, in which people and all other beings in the world are interconnected, creating social relations and obligations between all beings (Berkes 1999, International Council for Science 2002, Allen et al. 2009). Through this view, the resources that are the aim of conservation initiatives are interconnected with the people who manage them. Natural resources are managed through a reciprocal relationship between all beings. Indigenous resource management is the result of a way of being in the world, the consequence of which, in many cases, has been to nurture resilient social and ecological systems. Endogenous processes are therefore central to a continued nurturing of biocultural diversity – 'there is an evident and inescapable convergence between supporting bio-cultural diversity and supporting endogenous development' (Maffi 2007, p. 62).

From an endogenous perspective, the central concern is not one of conservation of resources (albeit biocultural) but, rather, one of engaging in the world in a way that enables collective goals of well-being of people and nature. Taking such a locally grounded approach to biocultural diversity reframes the issue of its conservation into an issue of nurturing it through supporting the self-determination of indigenous peoples. The self-determination of indigenous peoples is intricately related to their ability to assert territorial rights, as territory is a central aspect of an indigenous engagement with the world. From this starting point, a diversity of concerns and challenges facing

indigenous peoples can be engaged with and at the same time biocultural diversity may be nurtured. For example, the ability of indigenous peoples to maintain food sovereignty is intricately linked to social and eco-

nomie well-being as well as to agrobiodiversity (Pimbert 2007). Supporting endogenous processes can contribute positively to local food security, and at the same time nurture biocultural diversity. Indigenous holistic models for management of social relations and resources, which are the sum of endogenous processes, are therefore well placed to deal with the complexity of issues that local communities face, leading to well-being, which is intricately linked to biocultural diversity (Apgar et al. 2009).

The recent recognition of the need for more people-centred approaches to conservation has led to the emergence of new biocultural designations. Designations have been used in conservation as vehicles for protecting specific areas with significant biodiversity or other values, such as the creation of protected areas within states. Often these are referred to as Protected Natural Areas (PNAs). Of course, indigenous peoples have also historically used a form of designation to protect some areas. For example, the New Zealand Māori use rāhui processes. A rāhui is a term describing a cultural process that temporarily restricts or prohibits human activity at a specific geographical location. Different types of traditional rāhui have been described (Mead 2003), such as, for example, one that continues to be used today and has the primary goal of restoring productivity to a particular area by banning the harvesting of natural resources (Maxwell and Penetito 2007). Our interest in this paper, however, is to analyse the role of statutory international and state-developed biocultural designations and understand their relationship to indigenous processes.

Statutory biocultural designations have been created on two levels: by international organisations such as the IUCN, UNESCO, etc., and nationally by states within their conservation policies. An example at the international level is the emergent concept of Indigenous Community Conserved Areas (ICCAs) that has been developed within the IUCN framework of management and governance of protected areas. The term refers to community-managed areas that contribute to conservation

goals. They form a category of protected area governance recognised by the IUCN, whether or not they are recognised by national conservation policies (Borrini-Feyerabend et al. 2004, p. 21). The ICCA concept has helped to illustrate that a variety of objectives and motivations drive community-based conservation (Kothari 2006, Oviedo 2006, Berkes 2009). They range from areas or resources being protected for spiritual or cultural reasons, such as sacred groves (Ramakrishnan et al. 1998), protection of single species such as a community project to conserve the arapaima fish species in Guyana (Fernandes 2004), to economic and social development through sale of timber and non-timber forest goods from a forest reserve (Orozco 2006). While there is recognition of the diversity of endogenous processes, their associated models and their goals of nurturing biocultural diversity, most analyses of ICCAs are undertaken from a conservation perspective, and focus mainly on their usefulness for conservation purposes.

While this conceptual level of analysing ICCAs serves the goals of the international spaces in which they have been created, to assess their value in supporting endogenous processes and conservation of biocultural diversity we have to look at how the ICCA concept is influencing national policies – the level at which designations become practical tools for conservation. Within nation states, national policies directly influence local conservation and territorial arrangements. Biocultural approaches developed internationally do not always translate into supportive national policies for local

endogenous processes. For example, Pathak (2006) notes that in India the new protected area category of Community Reserves uses a 'strait-jacket approach' that does not fully recognise local governance and requires the community to take on a conservation discourse. Consequently, communities fear that having their ICCA recognised through this new category would undermine their own approach(es). Other examples from the application of cultural landscape approaches further illustrate how the use of external conservation or 'managerial ecology' models often compete with indigenous models (Davidson-Hunt 2003). The emerging picture from these experiences is that national-level policies often work against local goals.

It is still early days for these new initiatives, but recent opportunities for dialogue on the development and application of ICCAs in practice (such as an IUCN-organised side event held during the 10th Conference of the Parties (COP) to the United Nations Convention on Biological Diversity (CBD)) illustrate that many challenges still persist. A main concern, voiced by several indigenous leaders during the 10th CBD COP, is that ICCAs might represent the repackaging of the same conservation-driven models under the guise of people-centred development, and are unlikely to address underlying concerns for self-determination. Accordingly, it cannot be assumed that these new approaches have already or will in the future promote a paradigm shift that translates into actions that support endogenous processes and the self-determination of indigenous peoples.

The shift in conceptualisation of conservation models all too often translates into the protection of biocultural areas from a conservation-driven perspective. Bridging the void that often exists between a designation and the endogenous processes onto which it is superimposed requires analysis. Our goal is to build understanding of the relationship between the external category and extant relations from the perspective of endogenous processes and indigenous territoriality. Such understandings can help move us from designations that acknowledge the need to conserve biocultural diversity to collaborative initiatives that build capacities and skills for strengthening endogenous processes for development and self-determination in resilient biocultural territories.

Case studies illustrating the role of endogenous processes

In order to provide some context to our analysis of the role of endogenous processes and their relationship to biocultural designations, we use reflections from our collective experiences working with indigenous communities in action research initiatives aimed at supporting local conservation and development. We chose the two case studies because we know them intimately through professional relationships over several years as researchers and practitioners, and our engagement in various aspects of community-driven initiatives. Further, the case studies provide an opportunity for reflecting upon similarities of endogenous processes across a diversity of ecosystems

– river ecosystems in temperate latitudes, and tropical forests and coastal/marine ecosystems – and indigenous realities within distinct socio-political and economic settings across the world: the Māori in New Zealand and the Kuna in Panama.

These two examples also represent both ends of the designation perspective. The Comarca Kuna Yala in Panama provides an example of a biodiverse area that is managed as a biocultural territory by the Kuna and highlights the problems that designations can cause because they are not holistic. The recently created 'mātaitai' designation applied to a section of the Mataura River in New Zealand recognises the need to acknowledge the spiritual and cultural worldviews of the Māori and highlights how, in the absence of territorial management, biocultural designations can be a force for positive change. We recognise that both cases are positive examples of how indigenous

communities may assert their self-determination to simultaneously achieve a mix of cultural, livelihood and conservation goals, and thus are not representative of all local indigenous experiences. We share the examples to identify potentialities for communities, conservationists, practitioners and academics engaged in supporting biocultural diversity.

I. Territorial autonomy in the Comarca Kuna Yala, Panama

The Comarca¹ Kuna Yala is a semi-autonomous indigenous territory of the Kuna peoples within the Republic of Panama in Central America. It encompasses the San Blas Archipelago on the Caribbean coast of Panama with more than 400 islands, and a strip of land from the coast up to the continental divide (Archibold and Daley 1993), representing approximately 3.2% of the Panamanian land mass (CEPAL 2005). In 2000, the population of Kuna Yala was 32,400, which is almost half of the total Kuna population of Panama (INEC 2002).

Kuna Yala enjoys high biodiversity values in both its land and marine ecosystems. Its mostly intact primary rainforest is one of the few remaining places in Panama for spotting large mammals, such as tapirs, and rare birds of prey, such as the harpy eagle (Ventocilla et al. 1995). Deforestation figures between 1992 and 2008, comprising less than 3% (108 km²) of the total forest area over the 16-year period (INEC 2009), are an indicator of sustainable management. Kuna Yala's marine ecosystems are home to 80% of the coral reef diversity of the Panamanian Caribbean region (Guzman 2003).

The Kuna secured territorial autonomy of Kuna Yala through a historical process of negotiation with the Panamanian state, ongoing struggles and active resistance to state 'civilising' policies (Howe 1998, Wagua 2007). Today, governing responsibilities are shared between two overarching Kuna institutions. The Congreso General Kuna (CGK), officially recognised by the Panamanian state, is the political and administrative institution of the Comarca. The Congreso General de la Cultura Kuna (CGCK) is the highest cultural and spiritual authority of Kuna Yala. These governing institutions were created by the Kuna through an expansion of their community governance system. Each of the 49 communities of the Comarca participates directly in the general congresses, using the same centralised community governance process facilitated in the onmaked nega (central gathering house).

Each community is managed through a local congress, using participatory democracy facilitated within the central onmaked system² of governance. Each community is an autonomous entity, and is responsible for management of all natural resources within its communal territory (both terrestrial and marine/coastal). Governance and resource management, therefore, continue through use of a socio-cultural collective system that can be traced back to the beginning of Kuna oral history. Decision-making is facilitated by use of processes and protocols for collective dialogue that have emerged historically and are embedded within collective memory. The main goal of the process is to facilitate engagement in a world of interconnected beings. The centralised process further supports holistic management by bringing multiple knowledges into problem solving (Apgar et al. 2009).

The territory of each community encompasses land from the main divide to the coast and coral islands. This allows a view of interconnected ecosystems, from the forest to the sea. Traditional practice includes protection of primary forest or 'old forest', which is used for hunting and gathering purposes and rotating use of 'young forest' or secondary forest, for swidden agriculture (Stier 1979). Areas of particular spiritual significance are protected as 'spirit sanctuaries' (Chapin 1994, p. 91), within which only extraction of resources for medicinal purposes is allowed. Today,

management of terrestrial resources continues to be focused on subsistence activities. Coastal areas and islands are cultivated with coconut plantations, and most fishing uses hook and line.

However, there are changing trends in Kuna Yala, with an increasing number of men employed in paid labour and a large number of families living outside the Comarca. These changes bring shifts in the way resources are managed, and in particular marine resources. The area's coral reefs are being degraded due to mining for construction (Guzman 2003). A significant increase in sale of marine species such as lobsters and king crabs has led the CGK and communities to create management plans that include restrictions on fishing at certain times of the year. Explicit development of marine resource management schemes by the Kuna is an indication of the strength of local endogenous processes in the face of drivers of environmental degradation. These systems are able to protect biodiversity while enhancing well-being.

There have been several experiences with externally driven conservation initiatives and designations in Kuna Yala that highlight the difficulty of linking them to endogenous processes. A well-known example is an attempt to build a wildlife reserve within the Comarca through the Study Project for the Management of the Wildlands of Kuna Yala (PEMASKY by its acronym in Spanish) (Chapin 2000). The plan to set aside 60,000 hectares of forest within the Comarca as a wildlife reserve was a Kuna response to land encroachment (Howe 2001). The project was hailed as innovative in the 1980s, and it was proposed that the resulting reserve would be incorporated into the UNESCO – Man and the Biosphere system (Houseal et al. 1985). With support and funding from conservation and development agencies, the initiative aimed to build bridges between traditional and scientific conservation approaches. The PEMASKY initiative, however, did little more than develop a management plan. The reasons for its failure are manifold (Chapin 2000), but one notable reason was the difficulty of overcoming differences between an endogenous approach to protecting resources, and a conservation approach (Chapin 1994). The divide between a 'spirit sanctuaries' approach, with its interconnected view of the world, and a protected area approach was too vast to be bridged even by Kuna elders and biologists.

Other Kuna 'conservation' efforts, such as the Nargana Wildlife Area (Solis Rivera et al. 2006) have similarly illustrated the clash between endogenously produced resource management schemes and conservation-focused designations. It is important to note that these conservation efforts included the Kuna from their onset, and could be thought of as cognisant of their role as efforts within an indigenous Comarca. Nonetheless, marrying people-centred conservation with endogenous development was not easy. Behind these efforts, an ongoing endogenous process of governance continues to nurture the relationship between the people and ecosystems of Kuna Yala. Biocultural diversity is the result of this endogenous process, and not conservation initiatives. For the Kuna, territorial autonomy provides a relatively 'safe' environment within which endogenous processes that link people to land and resources in a particular place are able to support collective governance and wellbeing.

The Kuna story of biocultural autonomy, however, is not without challenges, as the Panamanian government continues to challenge Kuna Yala through various development projects and plans that have the potential to weaken autonomy (Howe 2001, Cultural Survival 2010). Thus, even in this unusual case of indigenous territorial autonomy, there is a need for continuing to reflect upon protection of endogenous processes, which are vehicles for self-determination, and the underlying processes for nurturing biocultural diversity.

II. Ngāi Tahu and the Mātaura Mātaitai Reserve, New Zealand

Ngāi Tahu is the predominant iwi (tribe) of Te Waipounamu (the Greenstone Isle or the South Island of New Zealand). Before the signing of the Treaty of Waitangi (New Zealand's founding national document) in 1840, Ngāi Tahu as tangata whenua (people of the land) exercised and managed their affairs within the rohe (tribal boundaries) for which they held manawhenua manamoana (authority over land and water resources) and maintained ahi kaa (occupation) – an area estimated to be greater than 80% of the South Island (Beattie 1994, Evison 1997).

After the signing of the Treaty of Waitangi, the ability of tangata whenua to own and manage natural resources and exercise their own governance was systematically eroded. Although article 2 of the Treaty of Waitangi guaranteed tangata whenua the continued customary ownership of their property rights, this was not upheld by the Crown. For Ngāi Tahu this resulted in the loss of land (the primary economic base of the tribe) through the Crown's failure to honour the conditions upon which Ngāi Tahu land was purchased. Furthermore, the inability of tangata whenua to own and be involved in the management and control of fisheries resources led to mahinga kai areas (areas of traditional food and resource gathering) being lost to Māori and degraded. It was not until the 1990s that the Crown started to initiate engagement with Māori over long-standing grievances and claims relating to breaches of the Treaty of Waitangi. These processes have resulted in the Ngāi Tahu Settlement and the Fisheries Claims Settlement, which provide for restitution through the return of resources and monetary compensation. But more important to this discussion is the ability and potential of the legislation to give effect to Ngāi Tahu self-determination and sovereignty (Buick-Constable 2005).

For Ngāi Tahu living in Murihiku (Southland, the South Island) the proverb 'Ki ngā kōrero o ngā Tūpuna ko ngā awaawa ngā uauau a Papatūānuku – In the words of our ancestors, the rivers are the veins of the Earth Mother' (Ngāi Tahu ki Murihiku 2008) epitomises the sense of caring or love, depth of relationship, dependence, obligation and responsibility they feel for the rivers that they and their ancestors have relied on and revered for centuries. The Maitai River, within the rohe (territorial boundary) of the Hokonui Rūnanga,³ like many others in the Murihiku region, has been subject to drastic changes in catchment land use and landscape that have negatively affected water carrying capacity and water quality. Despite this, its cultural significance to Hokonui and its importance for physical and spiritual sustenance has not diminished. Cultural associations and practices continue, ranging from food harvest, ceremonies and rituals through to maintenance and transfer of historical information. Each is a living testament to a relationship that is embedded in and defined through whakapapa (genealogy) and ahi kaa (unbroken occupation and association) accompanied by obligation and reciprocity. These are strong motivational drivers that underpin tangata whenua efforts to address many of the environmental issues affecting the Maitai River today.

In response to degradation of the river, and the need to restore it as a mahinga kai area, the Hokonui Rūnanga and Ngāi Tahu have negotiated with the Crown to leverage opportunities through a designation that recognises endogenous processes that nurture biocultural diversity. The result is the Maitai River Mātaitai Reserve that was officially opened in October 2006. Mātaitai reserves are a prescriptive fisheries management tool that has been created under national fisheries legislation (Part IX of the Fisheries Act 1996). They are designed to give effect to the Crown obligations stated in the Treaty of Waitangi Fisheries Claims Settlement Act (1992) and recognise the rights guaranteed to tangata whenua under the Treaty of Waitangi.

They are created in areas of traditional importance for customary food gathering and usually exclude commercial fishing – though bylaw changes can permit this activity. Further, mātaitai only apply to fish species managed under the Fisheries Act. Tangata whenua must apply to the Minister of

Fisheries to establish a mātaimai, which is a permanent designation. So while mātaimai designations recognise the particular relationship of indigenous peoples to resources within their territory, they continue to be based on a species-focused conservation paradigm. The Maitāura Mātaimai is still New Zealand's only freshwater mātaimai and encompasses a 10-km stretch of the Maitāura River.

The prescriptive and government-managed nature of mātaimai reserves continues to keep them within a species-driven conservation paradigm, and is limiting, as only certain areas where certain species are found are eligible. However, once they are established, a local tangata whenua committee is authorised by the Minister of Fisheries to manage and control the harvest of species managed under the Fisheries Act, providing opportunity for endogenous processes to be supported. A tangata tiaki/kaitiaki is a person appointed by the community to authorise customary fishing in their rohe in accordance with tikanga (normal cultural practices). Tangata tiaki manage customary food gathering and recreational fishing by Māori and non-Māori in keeping with local sustainable management practices, and issue customary food authorisations. Tangata tiaki can also recommend bylaw changes to allow activities such as commercial harvest.

A well-known Ngāi Tahu tribal proverb 'Mō tātou, ā, mō ngā uri ā muri ake nei – For us and our children after us' was adopted for this mātaimai and it aptly encapsulates the mātaimai vision of a sustainable, healthy and abundant fishery that provides for the customary fishing needs of the community (Maitāura Mātaimai Management Plan 2007). Implicit in the above tribal proverb is a holistic world-view and tribal goals that extend beyond the prescriptive nature of mātaimai that is in essence a government-imposed framework – specifically the notion of selfgovernance and co-management that is embedded in local endogenous frameworks that promote cultural well-being inextricably linked to natural resource health. The Maitāura experience with a biocultural designation illustrates how designations in some cases can allow communities to leverage what is important to them. For the local Ngāi Tahu tribe, the natural resources, species and taonga (treasures) found within the Maitāura River are tangible treasures that transcend the generations. The establishment of the mātaimai signals an important return of respect and management authority to tangata whenua and already the mātaimai has been a catalyst to coordinate and draw new interest from regional authorities, industry, resource managers, fishers and science providers to monitor and improve the river's health. Tangata whenua opinion reflects this, in that while the Maitāura Mātaimai is considered a government response to historical inequalities that is prescriptive and limited in some aspects, it still remains one of the few opportunities that local Māori have had to leverage and lead a culturally relevant and appropriate collective response to reverse the impacts on this local, regional and nationally significant water body (R. Trainor, 4 personal communication, 2010).

Discussion

We began by establishing that endogenous processes play a central role in nurturing the relationships between indigenous people and ecosystems. These organic community processes will always exist, and in indigenous territories that house a significant portion of the world's biocultural diversity they are both the consequence and drivers of that diversity. Endogenous processes link people, place and culture and enable self-determination. They are about much more than conservation. Through their continuation, indigenous peoples simultaneously maintain their cultural identities and biodiverse landscapes, a consequence of a way of being and interacting with the world.

Biocultural designations have been developed in recognition of this need for more community-centred approaches to conservation. The conceptual shift they signify is occurring from within

the conservation paradigm. While this shift is important, we highlight here that biocultural designations must support endogenous development processes that link the well-being of local people and their environments. This requires those who develop such designations to put endogenous processes and self-determination at centre stage. Only then is it possible to integrate species protection into a much broader biocultural development model, of which territory is an important component.

The case studies we have presented illustrate that biocultural designations can be helpful in some cases, and unhelpful in others. The Comarca Kuna Yala is an example where an indigenous people has historically created a context within which their endogenous processes continue to develop, through securing territorial and self-governance rights within a nation state. The Kuna case of self-governance is not without its challenges, particularly in the globalised context of today, yet having created a space within which endogenous processes can freely be exercised, the Kuna continue to nurture biocultural diversity without requiring help from designations. Moreover, when designations were brought in, they failed to bridge the gap between the local endogenous approach to protecting resources and a conservation-driven approach, and so could not proceed to implementation. In spite of this failure, biocultural diversity continues to be nurtured in the Kuna territory. Supporting biocultural diversity in Kuna Yala is therefore best done through supporting Kuna governance directly.

The Māori case, on the other hand, illustrates that in a context where they continue to struggle to gain more rights for self-governance, designations have been useful. Here the indigenous communities have been through a process of restitution, yet continue to face challenges to their endogenous development. In the Mautara River example, recognition of the need for a biocultural designation has enabled endogenous processes to be strengthened. The mātaihai designation has created a role for local people and the community to manage the reserve based on customary use, knowledge and local governance. This has created a platform that promotes endogenous processes, and has helped local Māori to lead a culturally relevant and collective response to improve this significant freshwater resource.

The learning from these cases is that it is important to not necessarily start with the development of an externally developed designation. Due to the exogenous nature of statutory biocultural designations, their development should start with the simple question, 'is a designation going to strengthen endogenous development efforts, or distract from them?' Reframing biocultural conservation in terms of endogenous processes must be the first step for building a relationship between external designations and endogenous development.

The usefulness of a designation, therefore, depends on its cognisance of endogenous processes. The reason that in the Mautara case the designation was helpful, ironically, is the same reason it is unnecessary in the Kuna case; in both instances it is the underlying endogenous development process that is of paramount importance. For the Hokonui Rūnanga, a designation has provided opportunity to strengthen their endogenous development processes, while Kuna territorial autonomy allows for their endogenous processes to work to protect cultural and biological resilience.

In cases where there is a role for biocultural designations, then, it is necessary to consider practical steps and conditions required to support endogenous processes. The diversity of local contexts within which indigenous communities are nurturing biocultural diversity across the world means that these practical steps will be different in each case, and there can be no 'one size fits all' approach. Some biocultural approaches to conservation, such as ICCAs, recognise diversity. But this

alone is not necessarily enough to ensure that endogenous processes are strengthened and supported.

Conclusions

The learning that emerges from our analysis is to be cognisant of the external nature of biocultural designations and not to assume that they will necessarily be helpful in indigenous territories. Unless this questioning of their role is the starting point, then ongoing discussions are unlikely to reach common ground. In the Kuna experience with designations, in spite of efforts to find commonality, the designation failed while endogenous development continues. Once the difference between a local endogenous development model and a conservation-driven model (whether biocultural or not) is understood, then it is possible to be self-critical in use of concepts and approaches. Further, in different contexts, creative and locally appropriate solutions in policy and action must be developed to support endogenous development as a process that strengthens our ability to promote biocultural diversity as a manifestation of all life.

The field of conservation has come a long way towards recognising the importance of people-centred approaches to natural resource protection, yet as our case studies show, it also needs to include greater consideration of local community development. Our experiences lead us to argue that reframing the field of conservation of biocultural diversity into one for supporting endogenous development is a more effective way to reach the goal of nurturing positive relationships between people and nature. Bridging the gap that exists between often disparate conservation and local community approaches requires that we ensure that our designations support the self-determination of indigenous peoples, and as a consequence can more effectively nurture biocultural diversity.

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Notes

1. Comarca is a Panamanian special political division for indigenous territories. Kuna Yala was the first to be established, in 1954. Since then, several other Comarcas of other indigenous peoples have also been established.
2. The term onmaked refers to the community gathering which takes place in the central gathering house, and forms the basic structure for the Kuna community participatory democratic governance system.
3. Marae-based councils administering the affairs of the hapū (sub-tribe). The Papatipu Rūnanga of Ngāi Tahu Whānui, 'the collective of the individuals who descend from the primary hapū of Waitaha, Ngāi Tahu and Ngāti Māmoe' (section 9 of the Te Rūnanga o Ngāi Tahu Act 1996).
4. Rodney Trainor was a key tangata whenua representative responsible for the drafting and submission of the Maitai application to the New Zealand Ministry of Fisheries.

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