

# Biocultural Approaches to Conservation & Development



Terralingua





# Biocultural Conservation and Development: Strengthening a World Brimming with Diversity

Biocultural diversity is increasingly recognized as a key concept in the contemporary thinking and practice of conservation. As the conceptual level, it brings together the interrelated aspects of the diversity of life, highlights the intrinsic links between them, helps explain human-nature interactions and the co-evolution of nature and culture; as a conservation approach, biocultural diversity introduces notions, tools and methods that enhance conservation outcomes in specific environments managed by peoples and communities. Policies and practices that better understand the profound links between nature and culture and the value of diversity for resilience can support creativity, encourage better adapted responses, and empower people to value their identity and knowledge. In about a decade, many global conservation organizations have integrated biocultural diversity as an important concept of their policy frameworks, and have started to consider what the implications of this are for conservation practice.

Gonzalo Oviedo, Senior Adviser on Social Policy, International Union for the Conservation of Nature (IUCN)

We have an opportunity to reframe the international development conversation to one that lifts the voices of local and indigenous people and their cultures and creates a more resilient and beautifully diverse world: a biocultural approach to development. The safeguarding of biological and cultural diversity needs to be deeply integrated and central to this new development paradigm. In bringing the voices of local people into this conversation, we will create a diverse and integrated approach to improving lives that is in line with and led by people in their unique environments, strengthening a world brimming with diversity.

Jamie Beck, former Contracting Officer & Local Partnerships Advisor, USAID

## BIOCULTURAL DIVERSITY TOOLKIT

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*Image Credits for Cover and Table of Contents: (cover) Quinoa farmer in Altiplano, Bolivia. Photo © Jamie Beck, 2012 (above) Offering at Dakshinkali Temple, Nepal. Photo © Jamie Beck, 2012, (Montage left) heirloom corn varieties, Google Images*

# Introduction

Luisa Maffi

The idea of an “inextricable link” between biological and cultural diversity was first affirmed in the 1988 Declaration of Belém issued by the International Society of Ethnobiology<sup>1</sup>. Developing out of that initial idea, the field of biocultural diversity has further articulated the concept that diversity in nature (biodiversity) and diversity in culture (cultural and linguistic diversity) are interconnected and interdependent facets of the diversity of life. In so doing, this field has provided an integrative framework within which efforts to sustain the vitality of nature are seen as inseparable from efforts to sustain the vitality of the world’s cultures and languages.<sup>2</sup> Over the past two decades, the concept has penetrated not only in the academic realm but also in international policy and practice relevant to nature conservation and sustainable development.


From the beginning, proponents of biocultural diversity sought to foster understanding among conservation organizations and other international agencies of the relevance of this concept for the conservation of nature<sup>3</sup>. In part as a consequence of this effort, a shift is taking place in conservation discourse, policy, and practice, away from earlier preservationist approaches. “Fortress conservation” tended to see local people only as a part of the problem of environmental degradation, and thus sought to exclude them from conservation areas, giving rise to large numbers of what has come to be known as “conservation refugees”. While many conservation organizations may still be unprepared to acknowledge that peoples and communities should be fully empowered to manage and protect biodiversity and natural resources on their own lands and territories, there is at least greater willingness to adopt more participatory approaches in conservation efforts where indigenous peoples and local communities are affected.

A biocultural focus has become apparent in the policy frameworks of major international organizations such as IUCN, the CBD, UNEP, and UNESCO. All of these organizations explicitly acknowledge the importance of sustaining cultural diversity and traditional knowledge as vitally relevant to biodiversity conservation. Some of them have also included the links between biological and cultural diversity in their mandates and programs of work, such as in the case of IUCN’s Commission on Environmental, Economic, and Social Policy (CEESP),<sup>4</sup> and of the CBD’s and UNESCO’s joint program “Linking Cultural and Biological Diversity”.<sup>5</sup> The latter program promotes a vision of “a world in which the global community sustains biological and cultural diversity for present and future generations” and aims to “mainstream considerations of the interdependence between biological and cultural diversity” not only within the CBD and UNESCO, but also among the organizations’ member states.

The value of biocultural diversity for sustainable development is also gaining recognition. Building on the connections between environment and development affirmed at the 1992 Earth Summit in Rio de Janeiro, the 2002 World Summit on Sustainable Development in Johannesburg explicitly highlighted the importance of respecting and integrating the diversity of nature and culture as a “prerequisite for sustainable development”<sup>6</sup>.

This position was reflected in the Summit’s Johannesburg Declaration on Sustainable Development and Plan of Implementation. Also following the Rio Summit, some international development agencies established mechanisms for working directly with local, including indigenous, organizations, in addition (or sometimes even in alternative) to their traditional country government partners. A relevant example is the Global Environment Facility’s Small Grants Program, managed by UNDP<sup>7</sup>, a number of whose projects now have a biocultural focus. National-level development agencies such as USAID have taken at least formal steps to acknowledge the role of indigenous peoples in development, by recruiting an adviser on indigenous peoples issues. As well, USAID’s Local Capacity Development Team has undertaken some exploration of “non-traditional” and biocultural approaches to development.





All these are undeniably important advances in the direction of mainstreaming biocultural approaches to conservation and development. Much more progress must be made, however, in translating statements of principles into actionable policies and appropriate and effective implementation. Accomplishing this goal poses significant challenges, particularly insofar as it involves the establishment of binding national-level policies supportive of biological and cultural diversity. In turn, this requires major efforts to engender the political will to take action.

Other obstacles to the application of integrative biocultural approaches to conservation and development may rather reside in the “institutional cultures” of conservation and development organizations. Among conservation organizations there still is considerable reluctance toward (and lack of capacity for) incorporating cultural dynamics in the work of conservation. In some quarters there also remains resistance toward recognizing indigenous peoples and local communities as partners in conservation and stewards of biodiversity on their own lands. Further, until recently there was limited inter-sectoral collaboration and integration between conservation organizations and institutions dealing with issues of culture, although this is beginning to change (as in the case of the joint CBD-UNESCO program of work mentioned above). Funding constraints also impede more integrative work across the nature-culture divide, as few funding agencies as yet provide support for activities that bridge that divide and that fully recognize the rights and self-determination of indigenous peoples and local communities.

In the case of development institutions, the key stumbling block lies in the enduring legacy of a prevailing development model that, in the words of a former international development worker, “takes a Western approach to what progress looks like and applies it to people in all parts of the world regardless of their own values” and therefore continues to foster “the creation of a Western monoculture” instead of “empowering cultures, languages or local solutions”<sup>8</sup>. This model fails to recognize the “vast storehouses of ideas, practice and knowledge” found in indigenous and local communities and the fact that “more often than not, the solutions to their own development needs already existed” at the local level. Rethinking the development model, then, requires realizing that “development is only sustainable and respectful when it embraces cultural and biological diversity”, and making “the critical empowerment of a community to drive its own development outcomes inherent in the development equation.”

Genuine progress toward biocultural sustainability calls for addressing the persisting obstacles residing in policy frameworks as well as in conservation and development models. This suggests that one of the main challenges for the full affirmation of a biocultural perspective lies in the realm of education. Creating greater support for biocultural diversity involves an in-depth effort to educate professionals, policy makers, funders, and the general public about the value of biocultural diversity for sustaining life on earth and achieving truly sustainable development—development aiming to sustain the interconnected vitality of nature and culture. By presenting relevant concepts, examples, and tools, this volume of Terralingua’s Biocultural Diversity Toolkit is intended as a contribution toward this educational effort.

## NOTES

1. <http://ethnobiology.net/what-we-do/core-programs/global-coalition/declaration-of-belem/>
2. See: Maffi, L. (ed.) 2001. *On Biocultural Diversity: Linking Language, Knowledge, and the Environment*. Washington, DC: Smithsonian Institution Press; Harmon, D. 2002. *In Light of Our Differences: How Diversity in Nature and Culture Makes Us Human*. Washington, DC: Smithsonian Institution Press; Maffi, L. 2005. *Linguistic, cultural, and biological diversity*. *Annual Review of Anthropology* 34: 599-617.
3. See: Posey, D.A. (ed.) 1999. *Cultural and Spiritual Values of Biodiversity*. London and Nairobi: Intermediate Technology Publications and UNEP; Oviedo, G. Maffi, L., and Larsen, P.B. 2000. *Indigenous and Traditional Peoples of the World and Ecoregion Conservation: An Integrated Approach to Conserving the World’s Biological and Cultural Diversity, and companion map* Indigenous and Traditional Peoples and the Global 200 Ecoregions. Gland, Switzerland: WWF-International and Terralingua; Carlson, T. and Maffi, L. (eds.) 2004. *Ethnobotany and Conservation of Biocultural Diversity*. *Advances in Economic Botany Series Vol. 15*. Bronx, N.Y.: New York Botanical Garden Press; Maffi, L. and Woodley, E. 2007. *Culture*. In: *Chapter 5, Biodiversity*, *Global Environment Outlook: Environment for Development (GEO 4) Report*. Pp. 182-185. Nairobi: UNEP; Maffi, L. and Woodley, E. 2010. *Biocultural Diversity Conservation: A Global Sourcebook*. London and Washington, DC: Earthscan.
4. [https://cmsdata.iucn.org/downloads/wcc\\_2012\\_8\\_3\\_3\\_commission\\_mandate\\_ceesp.pdf](https://cmsdata.iucn.org/downloads/wcc_2012_8_3_3_commission_mandate_ceesp.pdf)
5. [www.unesco.org/new/en/natural-sciences/special-themes/biodiversity-initiative/biodiversity-culture/unesco-cbd-joint-programme/](http://www.unesco.org/new/en/natural-sciences/special-themes/biodiversity-initiative/biodiversity-culture/unesco-cbd-joint-programme/)
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7. <http://sgp.undp.org/>
8. [www.terralingua.org/bcdconservation/?p=1493](http://www.terralingua.org/bcdconservation/?p=1493)



# A Biocultural Approach to Conservation: From Theory to Practice

Luisa Maffi and Ellen Woodley

**M**aking substantive progress in implementing a biocultural approach to conservation requires taking decisive steps to move beyond statements of principle and to translate theory into practice. Setting that goal raises some key questions: what is a biocultural approach to conservation, and what are the implications of embracing the idea of biocultural diversity for conservation practice?

Terralingua’s “Global Sourcebook on Biocultural Diversity” project aimed to address these questions by surveying and analyzing several dozen on-the-ground projects from all over the world that—in various ways and to different degrees—integrated biodiversity conservation with the maintenance and revitalization of local cultures and languages.<sup>1</sup> The aim of this project was not to establish “best practices”, “model projects”, or “blueprints” in biocultural diversity conservation. Taking such an approach would not have been easy to reconcile with the very idea of diversity in nature and culture and with the place-specific nature of biocultural conservation efforts. Rather, the goals were to achieve better understanding of the features and dynamics of biocultural projects and to share lessons learned, in order to provide some useful guidance to policy makers, practitioners, fieldworkers, and communities interested in integrating a biocultural approach into conservation efforts.

The projects surveyed were diverse in both context and emphasis—from projects entirely initiated and led by local communities, to ones conducted by outsiders in collaboration with local communities; and from projects that focused mainly on biodiversity conservation, but recognized the importance of traditional knowledge, cultural practices, and languages, to ones that concentrated on language and culture revitalization, while acknowledging the relevance of linguistic and cultural vitality for the conservation of nature. The projects also differed widely in the kinds of solutions they adopted to tackle the challenges of biocultural conservation. Despite the diversity of projects, it was possible to recognize certain commonalities among them, in terms of both factors that threaten the continuity of languages, cultures, and biodiversity, and factors that contribute to strengthening and rebuilding biocultural resilience. The following sections summarize some of the main lessons learned from the Sourcebook project, and considers other information relevant to the findings.

## Causes of Biocultural Diversity Loss

**A** variety of ecological, economic, and social forces responsible for the loss of biocultural diversity emerged from analysis of the Sourcebook projects (see Table 1). Most of these forces originate from outside the local context and are largely beyond the control of local communities. Several of the main sources of biocultural diversity loss identified through this analysis are human pressures that are well known as causes of environmental degradation and loss of ecosystem health:<sup>2</sup>

1. Physical restructuring (modification) of terrestrial and aquatic ecosystems for development and other human uses;
2. Discharge of waste residuals (toxic substances and excess nutrients) into the environment;
3. Over-harvesting of natural resources both on land and in water;
4. Purposeful or accidental introduction of invasive alien (non-native) species; and
5. Extreme natural events such as hurricanes, tsunamis, fires and floods (now greatly enhanced by radical human transformation of land, water, and climate).

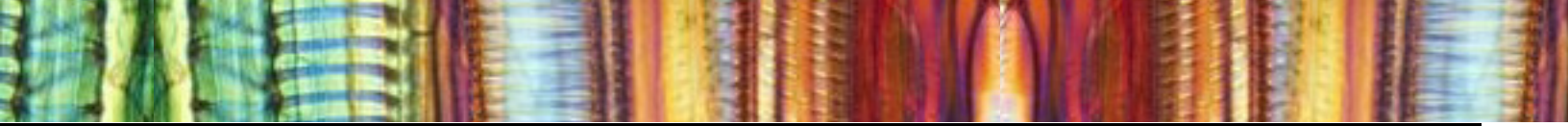


Table 1. Factors affecting biocultural diversity loss, as identified in Terralingua’s “Global Sourcebook on Biocultural Diversity” project

<p><b>1. Environmental Degradation, Land Use Conversions, Changes in Biodiversity and Over-exploitation of Natural Resources</b></p> <ul style="list-style-type: none"> <li>Habitat loss</li> <li>Soil erosion</li> <li>Decline of water resources</li> <li>Pollution of watercourses</li> <li>Wetland drainage</li> <li>Degradation of marine environment</li> <li>Deforestation</li> <li>Fires</li> <li>Climate change</li> <li>Agro-industry and monocropping</li> <li>Replacement of traditional crops with hybrids, non-native species</li> <li>Purposeful extermination of species</li> <li>Encroachment of exotic and invasive species</li> <li>Exploitative commercial forestry</li> <li>Over-fishing or destructive fishing methods</li> <li>Over-hunting</li> <li>Over-grazing</li> </ul>	<p><b>4. Acculturation and Socio-economic Change</b></p> <ul style="list-style-type: none"> <li>Loss of intergenerational transmission of traditional ecological knowledge (due to changing socio-economic context, disaffected youth, breakdown of communication between elders and youth, reduced opportunities for traditional teachings)</li> <li>Language loss and erosion of traditional knowledge and practices</li> <li>Loss of traditional beliefs relevant to biodiversity conservation</li> <li>Disconnection from environmental experience or physical disconnection from “place”</li> <li>Breakdown of traditional education systems; replacement with formal education systems that discourage or impede teaching of local languages, cultural knowledge, and worldviews</li> <li>Lack of recognition of the value of traditional knowledge by outsiders and the State, affecting knowledge maintenance</li> <li>Misappropriation of cultural knowledge</li> <li>Loss of knowledge and availability of traditional medicinal resources, replaced by poor health services</li> <li>Loss of food security; nutrition/diet problems from insufficient food production or diminished availability of traditional foods</li> <li>Incursion of non-native plants, industrially manufactured products into local markets, resulting in increased dependency on imports and lessened reliance on local foods and tools</li> <li>Encroachment of ideology of “progress”</li> <li>Missionization and loss of traditional spiritual beliefs</li> <li>Low self-esteem, general social decline due to colonization</li> <li>Immigration of non-indigenous/non-local settlers</li> <li>Out-migration from indigenous/local communities and impacts on women and children</li> <li>Civil unrest, war, violence</li> </ul>
<p><b>2. Economic Development</b></p> <ul style="list-style-type: none"> <li>Urbanization</li> <li>Mining</li> <li>Natural gas or oil production</li> <li>Agricultural and grazing encroachment</li> <li>Tourism</li> </ul>	
<p><b>3. Land and Resource Tenure Security</b></p> <ul style="list-style-type: none"> <li>Contested sovereignty and land tenure</li> <li>Lack of control over local resources, especially for women</li> <li>Illegal incursions on indigenous territories</li> <li>Forced relocation</li> <li>Privatization of collective lands</li> <li>State expansion</li> <li>Ineffective State governance</li> </ul>	

(Modified from Table 5.1 in Maffi and Woodley 2010, p. 131-132.)



## An Indigenous Peoples' Definition of Development

*'Development with identity is the project of life of the Indigenous Peoples based on their own logic and worldview. It is the natural growth of Indigenous Peoples, of their flora and of their fauna based on principles of self-determination in relation to land, territories, and natural resources. It is also respect for their individual and collective rights. It is the welfare and security of our peoples.'*

(quoted in Woodley et al, 2008)

These pressures on the state of the environment act cumulatively and synergistically among themselves and with other pressures that bring about acculturation and rapid socio-economic change and threaten land and resource tenure security. All of these pressures act together to negatively impact ecosystems and human well-being. Although Table 1 presents a listing and classification of pressures, it should be understood that these pressures are in fact mutually interactive and produce a multiplicity of chain reactions. Environmental deterioration commonly hastens socio-economic and cultural change. In turn, the unraveling of local cultural, social, and economic structures and practices opens avenues for further environmental deterioration. As well, changing worldviews and value systems can alter people's cultural identity and relationships to their natural environment. This can then lead to a breakdown in the intergenerational transmission of traditional knowledge, practices, and languages that were closely attuned to the local environment, and to the adoption of less sustainable ways of life and livelihoods.

## Relevance of Language Maintenance for Nature Conservation


An aspect that deserves special attention, because it has not been discussed extensively, is the role of local languages in biodiversity conservation<sup>3</sup>. Languages hold culturally specific knowledge of local biodiversity, such as ethnobiological knowledge, as well as knowledge about traditional resource use and management practices. In a context of cultural continuity and secure tenure over land and resources, local languages have a key function in communicating and passing on biodiversity-relevant knowledge and practices.

Rapid socio-economic and cultural change, however, is leading to widespread loss of local languages. Language loss is apparent in a number of Sourcebook projects, as a consequence of a variety of factors:

- Replacement of indigenous languages by a dominant language;
- Passing of older generations fluent in the ancestral language;
- Disconnect between generations, resulting in reduced opportunities for youth to learn their language;
- Intermarriage with immigrants who do not speak the local language;
- Actual neglect of indigenous languages even where official bilingual and intercultural education programs may be present; and
- Overall effects of colonialism, undermining sense of identity and pride in one's cultural and linguistic heritage.

When rapid socio-economic and cultural change jeopardizes the maintenance of local languages, the traditional environmental knowledge (TEK) encoded in the languages is also placed at risk. The loss of TEK then has a negative impact on the conservation of local biodiversity. Conversely, loss of local biodiversity contributes to making the related TEK irrelevant, and that contributes to the loss of significant aspects of the language, such as ethnobiological terminology, that encode TEK. As well, language loss contributes to loss of traditional stories, songs, ceremonies, and rituals that convey knowledge and values relevant to stewardship of biodiversity. In these various ways, when languages are threatened so is biodiversity, and vice versa.





Language maintenance and revitalization, therefore, are vital components of an integrated biocultural approach to conservation. On the other hand, it is important to realize that these efforts alone may not succeed in ensuring the continuity of traditional knowledge and practices, unless the underlying system of cultural and spiritual values and beliefs is also sustained. This means that bolstering local languages and protecting biodiversity are also closely interrelated to the affirmation of local cultures and cultural identities.

## Factors that Support Biocultural Diversity Conservation

**A**nalysis of the Sourcebook projects also revealed a number of recurring factors that contribute to positive outcomes for bioculturally-oriented conservation—or whose absence hampers such conservation efforts. These factors include:


*Maintaining and restoring the strength of local institutions.* Local institutions (both formal and informal) give voice to local people’s concerns and empower communities to be directly and centrally involved in decision making on matters that affect their interests: their lands and resources, livelihoods, security, well-being, and overall ways of life. Biocultural diversity conservation benefits from local initiatives to strengthen elders’ leadership based on traditional knowledge and values, revive ancestral law, renew intergenerational transmission of language and culture, and enhance the conservation potential of traditional cultural and spiritual beliefs and practices related to the local environment.

Changing needs may also lead to the creation of new community-based institutions, or to the re-conceptualization and adaptation of existing institutions. Some notable examples are those designated as Indigenous Peoples’ and Community Conserved Territories and Areas (ICCAs)<sup>4</sup>, Protected Landscapes and Seascapes<sup>5</sup>, Globally Important Agricultural Heritage Systems (GIAHS)<sup>6</sup>, locally stewarded World Heritage Sites<sup>7</sup>, and community-protected Sacred Natural Sites<sup>8</sup>.

*Securing land and resource tenure.* In order to maintain or restore endogenous institutions relevant to biocultural diversity conservation and sustainable use and management of natural resources, Indigenous Peoples and local communities must be able to enjoy secure land tenure and resource access. By affirming rights to traditional land and resources through demarcation of their territories and placement of land claims, they can strengthen their capacity to draw upon the local practices that have been effective in conserving and sustainably managing local biodiversity. Major challenges in accomplishing this goal lie both in the resistance of many national governments to negotiating such land claims, and in the transnational nature of many of the pressures that threaten Indigenous Peoples’ and local communities’ lands. Achieving secure land and resource tenure, therefore, requires conditions that are supportive of the rights and self-determination of Indigenous Peoples and local communities.

*Enhancing recognition of rights and self-determination.* Recognition and respect of the rights and self-determination of Indigenous Peoples and local communities is necessary to ensure that not only their lands and resources, but also their ways of life and livelihoods, institutions and identities, values and knowledge systems, cultural traditions and languages are protected from external social, economic, and political pressures. In addition to working at international and national levels to affirm their rights, Indigenous Peoples and local communities can benefit from rights-based tools, such as Biocultural Community Protocols (described in Section XX of this volume), that can be applied at the local level to define a community’s values, goals, and assets and on that basis determine the community’s own endogenous development path and rules of engagement with outsiders.

At the same time, it is essential to increase awareness of issues of rights and self-determination—as well as of the need for social, cultural and linguistic policies supportive of biocultural diversity—among those involved in biodiversity conservation, natural resource management, and land use decisions that affect Indigenous Peoples and local communities. Instruments such as the International Society of Ethnobiology’s Code of Ethics<sup>9</sup> and the related Ethics Toolkit<sup>10</sup> have been developed to support the establishment and maintenance of ethical, equitable, respectful, and mindful relationships between researchers or practitioners and the indigenous and local communities that they wish to work with.



*Strengthening cultural identity.* In addition to strongly upheld rights, the presence of a strong cultural identity confers resilience to cultural practices, knowledge and languages, which in turn enhances and validates efforts to maintain sustainable livelihoods and protect biodiversity. This aspect is important both from the point of view of Indigenous Peoples and local communities, and from that of policy makers, government agents, conservationists, resource managers, and others. For local people, it is crucial to feel a sense of “pride of place” and an ability to identify with their biocultural heritage. People from outside their communities who work with them need to recognize the value of sense of pride and identity and avoid undermining them, whether directly or indirectly, with inappropriate interventions. Lack of appreciation for or disparagement of traditional cultures and traditional knowledge systems by outsiders can hasten acculturation and assimilation, whether it is actively forced on Indigenous Peoples and local communities, or it comes from the internalization of such negative attitudes.

*Reconnecting elders and youth.* Strengthening the relationship between elders and youth in indigenous societies and local communities is essential for reviving interest and pride in culture, language, and “place”, and for sustaining biodiversity. The breakdown of intergenerational relations, driven by rapid socio-economic transformation and by changing value systems among youth, threatens the transmission of traditional cultural values, beliefs, knowledge, practices and languages. A renewed interest in traditional teachings and nature-related knowledge can be an incentive for the younger generations to conserve and sustainably use local biodiversity. Reconnecting elders and youth may occur in a number of ways, from taking youth out on the land with elders to pass on the language and traditional knowledge and teachings, to combining the transmission of traditional knowledge and wisdom with the creation of new economic opportunities for youth, to recruiting youth to document elders’ knowledge for school curricula and cultural and ecological restoration projects.

*Using traditional environmental knowledge in conservation planning and legislation.* Recognition of the value of traditional environmental knowledge and its incorporation in conservation planning and legislation are fundamental to ensure that conservation actions will be appropriate and effective for both people and the environment. In some cases, the use of traditional knowledge can be scaled up from the local level to regional and even state/provincial and national levels, such as in land use planning and in species at risk legislation. On the other hand, public use of traditional knowledge presents its own challenges. In many instances, local knowledge is considered sacred or the property of specific individuals, groups, or communities. Therefore, in such cases knowledge sharing is subject to knowledge holders’ rights, and can only take place to the extent that the knowledge holders agree to make certain information public. As well, access to traditional knowledge by outsiders is subject to established international provisions for intellectual property rights, and protocols for veto, prior informed consent, and benefit sharing on the part of the knowledge holders.

*Fostering sustainable use and management of biodiversity for sustainable livelihoods.* Along with traditional knowledge, traditional use and management practices support biocultural conservation. Sustainable customary uses of natural resources may allow communities to maintain or restore their means of subsistence and self-sufficiency, while at the same time conserving resources. People’s ability to ensure their livelihoods through traditional means, or through small economic enterprises that respect and build on customary practices, promotes pride and, by highlighting the local benefits of conservation, provides incentives for conservation through sustainable use. This is especially important for younger generations, whose interest in environmental stewardship is likely to be enhanced if they can find adequate and culturally appropriate economic opportunities locally. Such opportunities help reduce out-migration of younger people and other community members. In turn, this benefits the cultural continuity and resilience of communities, and favors the maintenance of intergenerational transmission of knowledge and practices and the underlying values and beliefs.

*Focusing on capacity building.* Another key factor that supports positive biocultural conservation outcomes is capacity building—understood in a biocultural context as an avenue for self-determination and endogenous development and not as a top-down effort. Whether capacity building is initiated from within a community or by outsiders, long-term effectiveness in biocultural diversity conservation requires strengthening a variety of skills in the community and among all project participants. The aim is to empower community members to take action






on their own for cultural affirmation and biocultural diversity conservation, and to sustain local conservation and development activities over time. The wide variety of skills involved include ensuring good governance and transparency in community-based organizations, recovering traditional political and cultural institutions, revitalizing traditional knowledge and practices and local languages, deploying traditional and new skills for land and resource management, ecological restoration, and sustainable economic activities, and acquiring familiarity with relevant rights and with legal and other instruments that support the exercise of those rights.

*Establishing genuine, equitable partnerships.* Increasingly, biocultural diversity conservation efforts are undertaken and carried out entirely by Indigenous Peoples and local communities, with or without outside support. Wherever outsiders (whether researchers, NGOs, government agencies, or other external actors) are involved, achieving effective and long-lasting results calls for genuine equal partnerships, based on mutual respect and on commitment to a shared learning process. This requires time and flexibility to become familiar with different worldviews, beliefs and values, knowledge systems, behaviors and languages, different sets of expectations and assumptions, and different ways of making decisions and acting on them. The establishment of truly participatory relationships and processes also enhances the likelihood that outsiders will give proper recognition to the value of local knowledge, practices, beliefs, and languages, and that over time project activities will be fully devolved to local people.

*Adopting multi-scale approaches.* While grounded in local realities, biocultural conservation efforts almost invariably have multi-scale ramifications that require recourse to national- or international-level interventions. This is because many of the pressures whose effects are felt locally—from large-scale resource extraction and land use transformation to air and water pollution and climate change—have their sources in regional-, national-, or global-level processes. Achieving success in protecting local cultures and biodiversity involves challenging but necessary efforts to take action and make links across different scales. At the same time, efforts at the local scale can have positive effects at larger scales, insofar as sustaining cultures and biodiversity locally contributes to the maintenance of biocultural diversity at national or global levels. Similarly, removing the obstacles that impede effective responses to the local loss of biocultural diversity often requires multi-scale action, as the obstacles commonly reside in adverse circumstances at regional, national, or global levels.





A key aspect of embracing this logic of interconnectedness is adopting the view that biodiversity, cultural diversity, and linguistic diversity are to be valued and cherished as interconnected aspects of the web of life, a multifaceted whole that is both the product of the evolution of life and the expression of its future potential.

*Gaining government and multi-sector support.* The success of biocultural diversity conservation projects can be enhanced by government support. Where local, regional, or even national governments are supportive, greater resources and incentives, as well as favorable legal frameworks, can become available. Conversely, when government support is absent—either from outright failure to develop the relevant means and the enabling frameworks, or from lack of enforcement and/or inequitable application of existing provisions—serious obstacles arise that can derail or significantly slow down the implementation of local-level projects. In addition, addressing the complex interrelations of ecological and social changes often requires linking government sectors as well as different institutions at local, national and global levels, including governments, NGOs, and IGOs. This poses its own challenges, given the general fragmentation and compartmentalization that exists within and among institutions.

*Fostering policies for biocultural diversity.* Influencing local, national, or international policies to become more favorable to biocultural diversity and ensuring that their provisions are enforced are crucial, if onerous, goals for the success of biocultural conservation projects. Significant progress has been made over the past few decades, with many relevant provisions enshrined in a wide range of international instruments. The widely dispersed nature of these instruments, however, often makes it difficult for Indigenous Peoples and local communities to become fully aware and avail themselves of all the existing legal tools. Recognition of this major obstacle has motivated the creation of the Living Convention (described in [section XX](#) of this volume), an extensive compendium of legal resources that covers the full spectrum of international law relating to the links between humans and nature. The goal of the Living Convention is to ensure that existing international law does serve its intended purpose, and at the same time to point to what more needs to be done to strengthen the protection of biocultural diversity, in terms of both new policies and proper application of existing ones.

*Building a community of practice.* Efforts at biocultural diversity conservation are multiplying worldwide, but until recently they tended to be carried out in isolation, with few avenues for connection and communication. This has limited the ability of these efforts to gain global visibility and make a mark beyond the local level. A growing global network of bioculturally oriented researchers and practitioners is rapidly increasing the collective visibility and strength of biocultural diversity conservation approaches and initiatives. This community of practice fosters the exchange of information, experiences, and lessons learned among peers. Building on this knowledge sharing also allows for expanding the scope of the approach, refining methodologies, establishing stronger partnerships, raising awareness of biocultural diversity issues in broader circles, and identifying challenges as well as opportunities for further promotion of biocultural diversity research and action.

## Changing Education and Shifting Values

In spite of many encouraging signs of progress, an integrated biocultural approach to sustaining the diversity of life in nature and culture is still far from mainstream. Global socio-economic and political forces continue to push the world in the opposite direction. This is the greatest challenge that humanity faces for the sustainability of life on earth. A vast portion of humanity has become deeply disconnected from the natural environment, and

thus from the perception of our continued, inescapable dependence on, and interdependence with, the ecosystems we live in. This disconnect tends to make people inured to the environmental consequences of our actions and to the ways in which those consequences in turn negatively affect human well-being. We cling to the illusory belief in the next technological “fix” to solve the intractable problems we create.

What we need is a profound societal shift in understanding and values. This shift is undoubtedly the most significant and challenging of the educational efforts required. What is necessary at all levels is a radical change of mind towards a “logic of interconnectedness”—a logic that, as one Sourcebook project contributor put it, “brings along with it concepts of integrity, responsible action and sound relationships, and the idea that all of our actions have consequences”. A key aspect of embracing this logic of interconnectedness is adopting the view that biodiversity, cultural diversity, and linguistic diversity are to be valued and cherished as interconnected aspects of the web of life, a multifaceted whole that is both the product of the evolution of life and the expression of its future potential.

Bringing about the needed societal shift requires education—education that is not just informational, but transformational. Transformational education can deepen our understanding and shift moral and spiritual values toward an ethos of caring for one another and for the planet. It fosters the kind of integrative thinking and action that will create a societal climate favorable to biocultural diversity and help counter the many forces that are negatively affecting it. It promotes individual and collective choices that can move political will toward protecting and enhancing the biocultural diversity of life.

It has been asked: “What is to be ‘sustained’ in this rapidly changing world? The answer is simply yet profoundly ‘life itself’— life in its richness, diversity, vitality, and resilience in both nature and culture.”<sup>11</sup> We must rise up to this challenge. The future of all life on earth requires no less.



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# Rethinking International Development: A Biocultural Perspective





Ganga Aarti ceremony in Rishikesh, India. Photo  
© Jamie Beck, 2012

An interview with Jamie Beck,  
by Luisa Maffi

*Jamie Beck, a former USAID Officer and Advisor, had several years of experience with international development projects, particularly in connection with the establishment of local partnerships. Ultimately, this experience left her feeling that the dominant paradigm in international development stemmed from a monolithic Western concept of “progress”, and thus stifled cultural diversity and didn’t foster genuinely local, culturally appropriate and lasting solutions grounded in local knowledge, ingenuity, and self-reliance.*

*In her writing <http://www.terralingua.org/bcdconservation/?p=1493>, she has suggested that, while being “rooted in indisputable good will, far reach, and well-researched methodology”, the old development model “desperately needs to be reframed into one that allows the development conversation to be defined and led by those to whom it is most critically relevant”, and that “we have an opportunity to reframe the international development conversation to one that lifts the voices of local and indigenous people and their cultures and creates a more resilient and beautifully diverse world: a biocultural approach to development.”*

*Luisa Maffi, Director of Terralingua, interviewed Jamie about her views of the “old model” of development, what is lacking in it, how development should be reframed in biocultural terms, and how we can get from here to there.*

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**Luisa Maffi: Jamie, as you see it, what are the gaps, from a biocultural point of view, in the current dominant model of international development? Give us some concrete examples from your past work at USAID, and your reflections based on your experience.**

**Jamie Beck:** It has been over two years since I left USAID, where I served as the Indigenous Partnerships Advisor on a major USAID Reform effort aimed at more directly funding local organizations. Since then, I have worked on an extensive USAID-funded research project called The Learning Agenda (<http://www.developmentiscapacity.org/>), which interviewed over 750 people in 10 developing countries about how the international aid model needs to be further in alignment with the strength and needs of the “beneficiaries” of aid. The fact that USAID invested in this kind of work is a sign of hope.

In the past two years, in fact, many things have changed and progressed in this area, and there are reasons to be hopeful. The international community, for example, increasingly recognizes Indigenous Peoples’ human rights, prominently evidenced recently by the appointment of a Senior Advisor on Indigenous Peoples Issues at USAID. Indigenous Peoples are the stewards of some of the world’s most biologically diverse areas, and their traditional knowledge about the biodiversity of these areas is invaluable. They continue to organize to assert their rights. So, great strides have been made. That said, however, much remains to be done. I believe that despite progress made by large international development donors, the following gaps still remain:

First and most fundamentally, an **attitude change** is necessary among those in the international development arena, to reflect an awareness that, in Terralingua’s words, “diversity in both nature and culture confers vitality and resilience to this planet.” Perhaps if large development agencies hired people not necessarily for their expertise in western-defined agriculture or health, etc., but for their recognition of the importance of biological and cultural diversity, we’d move closer to closing the gap.

Second, large funding agencies, particularly those government-run, remain desperately susceptible to **shifting political whims**, funding uncertainty and the procurement constraints that have historically governed agencies like USAID. This is to blame on

the very structure of a system that is at the will of the US Congress, because it is funded by the American taxpayer. But because trust and long-term commitments are such an important element of successful partnerships in allowing diversity to flourish, it is critical that a reliable commitment to this work is made and adhered to, despite changes in agency leadership and priority.

Third, **rigidity and inflexibility** when confronted with differing local contexts is perhaps the most damaging gap that the field continues to experience. Adaptability to local contexts is an absolute requirement when attempting to allow diversity to flourish in the many places that foreign aid reaches. A one-size-fits-all approach that expects everyone in all contexts to understand and abide by the same rules is what stifles diversity. And it places disproportionate focus on “how do we execute”, de-prioritizing the important re-examination of “why are we doing this” or “what are we doing this for”.

Fourth, most large donors operate on **strict timelines and decision-making structures** that are incompatible with indigenous-led approaches. It can take what may seem like a long time for traditional councils to meet, consult with the rest of the community, and go through customary decision-making processes. This is at odds with many funders and governments, which often enter a particular community with specific ways of implementing projects under tight timeframes. Again, a less rigid approach is necessary.

Finally, large development agencies continue to place undue **focus on “results” and “impact”** and tend to have strict policies about how to measure results that are largely based on stakeholder interest and oversight. Impact is an inappropriate metric by which to measure the success of a partnership, when oftentimes a biocultural approach calls for the *prevention* of outside change and rather maintenance of traditions, resources and values. Donors are well advised to remember that less impact can contribute to community resilience.

Examples of biocultural diversity being stifled by well-meaning development programs abound. Agricultural programs are a popular example, such as “Alternative Livelihoods” programs that are meant to encourage economic development through the introduction of cash crops. Many times these programs



*Offering at Dakshinkali Temple, Nepal. Photo © Jamie Beck, 2012*

only deprive communities of traditional food crops and strip the land of its natural diversity. Agriculture is the obvious example, but biocultural diversity can be integrated into every aspect of international development – down to its grantmaking processes. Education programs lack diversity by funding English learning and neglecting local languages and traditional ecological knowledge. Health programs too can stifle biocultural diversity, for example by undermining local remedies and undermining or discrediting traditional healers.

These gaps reflect the notion that Western societies know better how a community should develop than the community does—that somehow western knowledge is more credible than local knowledge. This is shown time and again to be wholly inaccurate, as increasingly scientists have been turning to native knowledge, including in their quest to address climate change. I do think the tide is turning and that gradually the world is opening up to this new era of development. But how and in what capacity remains to be seen.

**LM: Why do you think these gaps exist--that is, what are the (ideological, political, etc.) obstacles that make it difficult for the current development model to connect with a biocultural perspective and move toward a bioculturally sensitive, endogenous model of development?**

**JB:** I would say that the primary obstacles moving forward are a deeply ingrained sense of one knowledge or approach being “better” or more sophisticated than other forms of knowledge, coupled with procedural and oversight obstacles that are structurally unable to provide the flexibility necessary for a biocultural approach to flourish. The very nature of a funder-grantee relationship sets up dangerous terms. Developing serious philanthropic relationships with Indigenous Peoples requires a readiness to accept alternative worldviews and processes that can benefit both sides reciprocally in perhaps nontraditional ways, helping to break down preconceived notions. There is much to be gained here.





Quinoa farmer in Altiplano, Bolivia. Photo © Jamie Beck, 2012

While I think it's unrealistic to expect a large bureaucratic agency like USAID to embody biocultural approaches in a deep way in the short term (in fact, I don't think that would be wise given the careful, deliberate exploration that I think they need to do first—of what they hope to do, of their own intentions, and of their own policy restrictions), I do believe that other types of partnerships are promising here.

Instead of large donors like USAID thinking of themselves as strictly grantmaking bodies, there are other ways that they can support a biocultural approach. One of the first steps they can take is to consider *what* their role should be instead of assuming that it will be one of funding, which in some capacities can exacerbate the paternalistic relationship that has been fostered for so long. Some roles include: a match-maker that connects indigenous groups with

fundors who can more appropriately support them; an awareness-raising body that raises important policy issues and leverages their networks to influence a topic; or as a bridge builder that makes it possible for nontraditional or unlikely partners to work together. They might also consider hiring an advisory council of sorts, made of people who are experts in various aspects of biocultural diversity and who could help raise issues and direct funding opportunities.

I also think that instead of simply funding donor-directed projects, working to strengthen the capacity of organizations that are revitalizing their own languages, landscapes, and cultures is vital. For capacity development to be appropriately funded, it means supporting these organizations on their own terms. "Indigenous Peoples should be able to identify their own training needs, to tap and strengthen local resources, and to participate in a methodology that speaks to their own learning styles and ways of organizing". (International Funders for Indigenous Peoples, *Grantmakers Guide: Strengthening International Indigenous Philanthropy*, 2011).

**LM: What are, in your view, the key characteristics of a bioculturally oriented development model? That is, what should its cardinal principles be, what human needs (both material and otherwise) should it satisfy, what kinds of outcomes should it produce?**

**JB:** Local and Indigenous Peoples and organizations based in the places where development projects are being implemented will have much more sophisticated and nuanced responses to this question than I will; and of course the details of what a biocultural approach to development looks like will vary from region to region and even community to community. But I think that that is exactly the point: a bioculturally-oriented development model must be flexible and human-centered enough to allow for these differences that local contexts dictate. So in my opinion, that is the cardinal principle of this approach: **flexibility to adapt to local context**. The culture, customs and institutions of Indigenous Peoples can be very complex and differ from one group to another or even among communities within the same group. Flexibility is crucial for allowing partnerships to flourish that are based on these differences and that do not try to fit them all in the same box.

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I think that the first thing that should be done by aid organizations is to adopt a set of principles around their work, especially in areas of high biocultural diversity. These principles might include the following, which are largely learned from the hundreds of people interviewed as part of the Learning Agenda project I mentioned, so these thoughts come largely from them:

First, **reciprocity**. There is as much to be learned as there is to be given with funding. Setting those values from the beginning of a partnership opens it up to vast possibilities for exploration.

Second, **long-term, trusting, learning-based relationships** that allow for dialogue and evolving needs and situations to arise. Often, this is when latent needs will arise that can lead to work that addresses the most fundamental issues. These relationships must be based on cultural respect and mutual learning, not power or paternalistic relationships.

Third, **shared vision and ideology**, which should be put into writing at the beginning of a partnership and serve as the basis for the relationship.

Finally, **openness to feedback and iteration** at all points throughout the partnership and even afterwards. There should be a “safety valve” that “beneficiaries” of aid can use to provide feedback and give suggestions, even after the grant period has ended. Openness to iteration, including failure, is part of what can allow a biocultural approach to spring forward.

**LM: Given the differences between the “old model” and the biocultural model that we’re talking about, do you think it is possible to just tweak the old model to make it more “bioculturally compatible”, or is it going to be necessary to completely replace the old model with the new? In either case, how do we get from here to there?**

**JB:** I’ll answer this question on two levels: the more nimble funders that are able to be adaptable and responsive; and larger funders like USAID that are less able to be flexible. On the former, I believe we’re already developing a whole new model that will replace the old. Organizations like Global Greengrants and New Field Foundation are already implementing totally innovative grantmaking processes that rely on local liaisons and networks to find out about people and organizations who are stewarding their cultures and environments

and who can be funded to support what they’re already doing. I believe that these models reflect the beginnings of a biocultural model of development in action.

In terms of the latter, USAID and other international government-run funders will obviously take much longer; and they should. We shouldn’t underestimate the care, attention, and delicacy that the process of working in areas rich with biological and cultural diversity deserves and requires. It will take time for large funders to explore local contexts and understand history of past interventions and relationships that can frame responses to local expectations. They’ll need to understand the state of biocultural diversity in the places in which they work; including the health of languages, traditional ecological knowledge, and the ties between people and their landscapes. They’ll also need to understand past treaties that may have been broken, trust that has been lost, and so forth. This is not parlance that many funders are fluent in, and they need to be before attempting to embark on this work.

In the meantime, however, funders like USAID can start by channeling their funding to organizations that are capable of having the nimbleness and flexibility to work with Indigenous Peoples in areas of rich biodiversity. They might also consider pooling their funds with other like-minded organizations so that they can have less cumbersome requirements. This approach takes undue focus away from an individual donor and streamlines reporting processes so that grantees are better able to focus on their constituents. It also increases donor access to rural communities outside of their traditional grantee groups.

And when donors like USAID do work in an area rich with biocultural diversity, relevant policy frameworks that protect the rights of Indigenous Peoples and biodiversity must be included. This should of course include the Convention on Biological Diversity, particularly Article 8(j): Traditional Knowledge, Innovations, and Practices, which talks about respect, preservation, maintenance and promotion of traditional knowledge with the approval and involvement of the users of such knowledge. It should also include Articles 11 and 12 of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), which address the right to practice and revitalize cultural, spiritual, and religious traditions, customs, and ceremonies. And

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finally, the right to free, prior and informed consent (FPIC) has already been recognized as human rights law and should be the basis for development projects.

Grantmakers must be fully cognizant of how these frameworks support traditional knowledge, innovations and practices, so that they can ensure that these are adhered to. This requires deep understanding, as well as building personal relationships with their partners to increase trust and credibility, allowing for the emergence of a deeper and more collaborative relationship.

Lastly, donors should adopt as good practice to engage people from the community or from the particular culture in which they are working on a panel of evaluators or advisors on their work in these areas. They might also consider allowing innovative reporting requirements such as video, photos, storytelling, or audio to convey the progress of projects.

**LM: Have you seen any developments in mainstream international development recently that might suggest that something is changing in a positive direction? If so, do you think the changes are genuine, or is it more like window dressing?**

**JB:** Absolutely, I have seen a lot happening in this area that gives me a great deal of hope. In my work with the Learning Agenda, I have found that nearly all the local people I talked to are already passionate about an approach to development that is exactly in alignment with what we are calling a “biocultural approach”. USAID’s investment in this project is an indication of its commitment to listening to local people to inform their agenda. USAID “Foreign Service Nationals” (FSNs) – or local people who work for USAID missions in their home country (e.g. Bangladeshi people working for USAID/Bangladesh in Dhaka) – often engage and challenge their American counterparts on issues facing their own people that they feel strongly about. These FSNs are helping to usher in a biocultural approach.

Obviously, USAID bringing on an Adviser for Indigenous Peoples’ Issues is a major development – one that I hope comes with real action more than being a symbolic appointment. My hope is that this position will be able to carry the message throughout the agency that issues facing Indigenous Peoples are real, urgent, and need to be handled in an integrated way throughout the agency, not just at the policy level – because there often is a disconnect between policy and enactment.

If the Adviser succeeds in ensuring that indigenous peoples are “partners in the design, implementation and evaluation of programs and projects that affect their lands, lives and livelihoods,” as USAID puts it, then I think the international development field will have come a long way toward supporting the flourishing of biocultural diversity in the places in which it works.

Of course there are large foundations that have been supporting biological and cultural diversity in some way or another, such as the Christensen Fund, Packard, Ford, and MacArthur. Climate change seems to be ushering in biocultural thinking in a whole new way, since its impacts have been felt more and more. Some donors now recognize that Indigenous traditional knowledge can contribute solutions to complex environmental problems. They also acknowledge that since Indigenous Peoples are often most affected by extractive industry operations and other conflicts over their territories, they are crucial allies and actors in efforts to protect the environment.

The organization International Funders for Indigenous Peoples (IFIP) is also doing a significant amount in this area, including publishing their *Grantmakers Guide: Strengthening International Indigenous Philanthropy*, which provides a very useful framework for designing grants and international development projects that hold respect for biocultural diversity and Indigenous Peoples. It has informed my own thinking.

Another exciting effort that I think has great potential as a model for fostering local ideas to spring forward is Amplify, a collaboration between the Department for International Development (DFID) in the UK and a San Francisco-based organization, IDEO.org. The collaboration, initiated and funded by DFID, aims to turn the development paradigm on its head by utilizing an online platform to allow local people and organizations from everywhere in the world to send in their ideas and experiences on various development issues. Through the online platform (which of course has its limitations in terms of universal access), people can collaborate with thousands of others who are also participating, including development experts, designers, lawyers, doctors, other communities experiencing similar issues, etc. The idea is to put the development agenda, and potential funding, in the hands of those who are living the challenges everyday.



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A bioculturally-oriented development model must be flexible and human-centered enough to allow for the differences that local contexts dictate. That is the cardinal principle of this approach: flexibility to adapt to local context.

It fosters collaboration between perhaps unlikely or nontraditional allies, and most importantly allows for people living in these contexts to set the agenda and conversation around their own challenges and ideas.

So yes, there are many exciting things happening to be hopeful and optimistic about. I think the extent to which these approaches become more the norm than the exception is important for this to catch on and a sea change to happen.

**LM: Now you are working in a very different context, as Development Director at The Cultural Conservancy (TCC), a non-profit organization with a mission to “protect and restore indigenous cultures, empowering them in the direct application of their traditional knowledge and practices on their ancestral lands”. In that context, you manage the Mino-Niibi Fund, which makes small grants to indigenous-led organizations that are working in areas related to TCC’s mission. You seem to be poised to accomplish some of the goals of a new, biocultural development paradigm. Tell us about this experience, and the differences you see from your previous work in international development.**

**JB:** Yes, it’s been quite the change to go from a large federal agency in Washington, DC and overseas Embassies to a small nonprofit organization based in San Francisco! It has been such a learning experience and an incredible opportunity to put into practice much of what I learned and experienced in my career and education. At The Cultural Conservancy, 80% of our Board of Directors is made up of Indigenous leaders in various fields. So a biocultural approach is already deeply embodied in the Board and infused in our organizational decision-making, structure, and grantmaking process.

The Mino-Niibi Fund (Mino-Niibi means ‘Good Water’ in the Ojibwe language) is a small regranteeing fund led by TCC that is built on a biocultural approach. We do not solicit for proposals around a specific set of work. We have four focus areas, and we invite organizations from our trusted network to send us quick ideas of work they’re doing or would like to do. This helps alleviate the burden of writing a 10-page proposal that conforms to a set of donor-led priorities. In terms of reporting, we encourage all kinds of approaches that are in alignment with the community’s way of reporting progress, such as video reporting, short narrative storytelling, audio recordings, songs, etc. in their own words and languages. In our grant agreements, we ask the grantee to tell us how they will define success at the end of the grant period. We do not define it for them. This allows the grant to be on their terms, in pursuit of their own goals. And of course, we allow for and encourage course correction along the way – to adapt to learnings and needed changes.

So at TCC I can be more creative than I was able to be at USAID in our approach to grantmaking—how we go about “soliciting” our grantees for their work, and what kinds of work we are able to fund. But of course the potential for large-scale change is not nearly as great as at a large aid organization like USAID. I think both are deeply needed; the small-scale embodiment of the approach, as well as the large-scale policy level such as at USAID. Many paths are necessary and available to embody a biocultural approach to development that is respectful of the many cultures and landscapes that give resiliency to our world. I look forward to seeing these many diverse approaches spring forward and embody the approach they aim to support.



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# A Bioculturally-Oriented Methodology for Enhancing Community Wellbeing and Environmental Conservation

Felipe Montoya-Greenheck

The biocultural diversity paradigm holds biodiversity and cultural diversity to be inextricably linked, to be mutually generative, and to have intrinsic value. Under this paradigm, efforts to improve community wellbeing or environmental conservation must inevitably build on the links between biological diversity and cultural diversity. In the following we provide a synthesis of a conceptual framework and participatory methodology for enhancing community wellbeing and environmental conservation within a biocultural diversity paradigm.

## Conceptual Framework

To establish common ground among interested experts, laypersons, and other stakeholders involved in community-based conservation and wellbeing improvement projects, we begin by defining our terms.

### Community

While the concept of community is often taken for granted, it is actually an elusive entity that may continually be defined and redefined geographically, temporally, as well as by other possible characteristics, such as race, class, gender, age, clan, profession, nationality, religion, and relations of power, among others. A community may be defined by “insiders” who subscribe to a particular community identity, or by “outsiders” who define the “other” community in terms of perceived differences from themselves. Moreover, identification with a community can differ not only from person to person, but within a single individual, depending on the context. In the context of a village, a person’s subscription to a community may be split along kinship lines; in a province, the same person may identify with the township. In the context of the nation-state, communities may be determined by ethnicity or religion, and in the international arena, by nationalities. In a project context it is therefore necessary to clarify and delineate the scope and possible contour of these nested markers of difference, and to keep in mind that these contours of community ascription are contextual and strategic, and may shift.

### Livelihoods

Community livelihoods are defined as the activities, assets, capabilities and strategies required and employed as a means of living (Schuyt 2005). Livelihoods include the ways and means of satisfying peoples’ fundamental needs. Livelihoods are ways of living, and not only ways of making a living. Livelihoods, under the biocultural diversity paradigm, represent an expression of the myriad possibilities of activities and assets, capabilities and strategies that arise from the conjunction of communities and places in order to satisfy fundamental human needs.

### Fundamental Human Needs

While the biocultural diversity paradigm recognizes and celebrates the infinite possibilities of cultural expression, the concept of fundamental human needs is based on the premise that all peoples have a limited and finite set of fundamental needs. Yet, this does not preclude cultural diversity. It is how these needs are satisfied that results in the vast and varied array of cultural expressions. Using Max-Neef et al (1986) as a guide, we propose a universal set of ten fundamental human needs organized in a general hierarchy of needs, starting with organic



needs, continuing with existential needs, and finally with transcendental needs. It is important to note that these categories are not tightly separated from one another, and may merge into each other. However, in general terms, the satisfaction of organic needs is indispensable before existential needs can even be fully expressed or satisfied, and transcendental needs may vary greatly between cultures and individuals.

### ***Organic Needs***

- *Subsistence*: the need for healthy air, water and food, as well as the vital biological relationships, interactions and processes (from intestinal flora to primary producers, food chains, ecosystems, territories, etc.), required for body maintenance, growth and reproduction.
- *Protection of person and place*: the need for health, security, and safety, which includes clothing and shelter, sanitary conditions, personal and environmental integrity, risk avoidance, and vulnerability reduction.
- *Affection and communication*: the need for social intercourse, association and communication with family, spouse, friends, community and other relations, both intra and inter-specific.
- *Liberty of movement and expression*: the need for the freedom of physical movement and expression: for example, the freedom to travel, liberty of thought, speech, and other forms of expression. Some of these needs blend into the realm of existential needs.

### ***Existential Needs***

- *Understanding*: the need for acquiring, manipulating and applying information and knowledge; this includes diverse forms of education and learning.



- *Creation*: the need for expression and invention by the manipulation of tangible, ephemeral and intangible elements; this includes technical, scientific, linguistic, artistic and other forms of creativity.
- *Participation*: the need for partaking of collective activities, having a voice, and having agency over one's condition and destiny as an individual or as part of a community.
- *Leisure*: the need for solace, rest, or enjoyable activities, as well as the time and external conditions that permit the satisfaction of this need.
- *Identity*: the need for belonging to a human group and/or locality, the need for recognition and respect, the need for defining one's place in the universe, and for pursuing a meaningful life.

### **Transcendental Needs**

- *Transcendence*: the need for exploration, growth and expansion beyond one's own organic and existential limitations in spatial, temporal, and spiritual terms.

The level of satisfaction of human needs is ultimately a matter of perception. For every community, the conceptualization of each of these needs, the value placed on them, and the energy dedicated to creating ways of satisfying them, is different, and must be taken into consideration when establishing a baseline assessment of community livelihoods, assets and wellbeing.

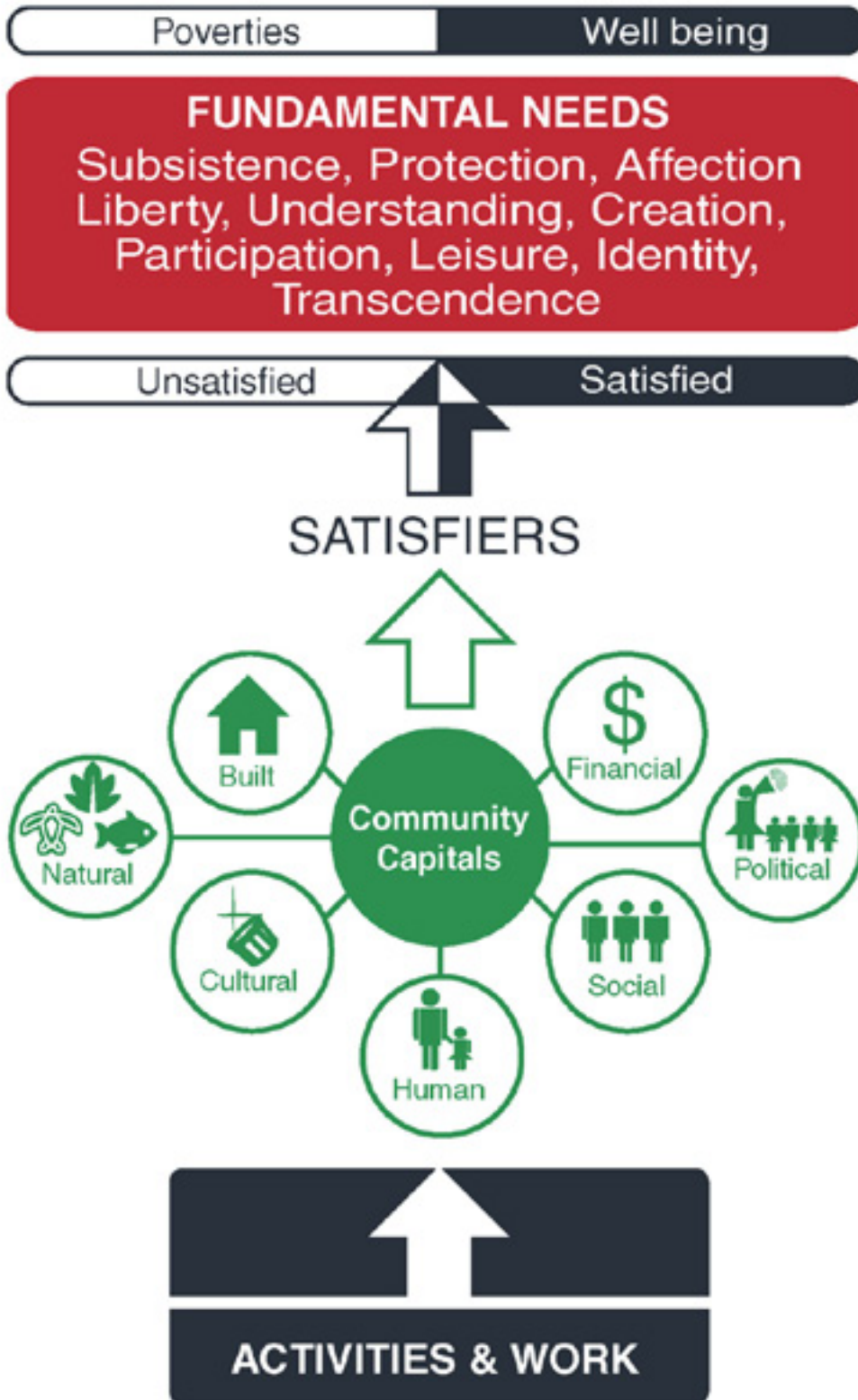
## **Satisfiers**

An important distinction must be made between needs and satisfiers. Satisfiers are the diverse ways and means by which needs are satisfied. Contrary to the limited set of fundamental needs, satisfiers are vast in number, subject to change, and culturally and temporally specific. This is the source of much of the diversity that exists among human communities. Each community has its own ways and patterns of allocating its resources and energies to develop the satisfiers of its needs. Satisfiers include ways of **being, having, doing** and *residing* (Max Neef et al 1986). Among the satisfiers developed by a community, some may be single, satisfying a single need, or *multiple*, satisfying various needs independently; they may be synergistic, satisfying various needs with a multiplying effect; or they may be destructive satisfiers that, while satisfying one need, compromise the satisfaction of others. These may also be pseudo-satisfiers, only apparently satisfying a need. Bio-cultural diversity is an expression of these satisfiers at work.

## **Community Capitals**

The wealth of communities is actively stored in its capitals. Although the term “capital” may carry some unintended and undesirable ideological connotations, it is used here to denote ***the accumulated assets of communities, the products of invested community energy, from which communities create the ways and means to satisfy their fundamental needs.*** Each community has its own unique “portfolio” of capitals, depending on where its members and stakeholders decide to invest their energy to satisfy their fundamental needs. These satisfiers, however, are usually extracted from a limited set of community assets or capitals. Using the framework proposed by Flora et al (2004), we distinguish the following set of community capitals:

- ***Financial capital*** (money, savings, currency, credits, loans, interests, tax revenues, investments, grants). Activities to “make money”, be it through salaried employment, commerce, investment revenues, interests, and others, are ways of investing in financial capital. Financial capital is probably the most commonly recognized form of capital. If well managed, financial capital has the capacity to reproduce itself. But it can also become concentrated in few hands if poorly managed. It should also be noted that financial capital is more common to industrialized and urban communities, than to rural subsistence communities.
- ***Built capital*** (buildings, roads, communication systems, water and sanitation systems, housing, machinery, tools). Infrastructure, or built capital, is often equated to community development, and lack of it is seen as a sign of backwardness. Care must be taken, however, to recognize diverse manifestations of built capital.



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For example, ancestral waterways or aqueducts that may be inconspicuous and appear merely as ditches may nevertheless be vital for the wellbeing of some communities. On the other hand, some large externally imposed works of infrastructure, such as hydroelectric dams, may directly threaten environmental and community wellbeing.

- **Human capital** (skills, education, capacities, health, self-confidence, self-esteem, ability to labor). Working to develop skills, capacities, self-esteem, motivation, etc., represents energy invested in building human capital at the individual level. Human capital has also been recognized as an important investment for community development or wellbeing.
- **Social capital** (human relations, contacts, networks, alliances, trust, reciprocity, shared visions, collective work). Activities to establish human bonds, relationships of trust and mutual help, alliances, shared visions, among others, represent energy stored in social capital. Traditional communities have long depended on social capital for collective wellbeing. However, this form of capital or community assets may be harder to identify than financial or built capital and may often go unrecognized as valuable.
- **Cultural capital** (information, symbols, language, world view, collective identity, techniques, tools, traditions, local knowledge). The activities of creating and transmitting knowledge from one generation to the next, of storing knowledge in languages or books, of developing methods, techniques, tools and technologies, of maintaining customs and traditions, among others, constitute energy stored in cultural capital. This is another extremely important set of community assets that serve as a source of wellbeing. Cultural capital is often linked to the ecological context the community is embedded in and may be shared through the complex networks of social connections.
- **Political capital** (structures of representation, voice, power). Activities to develop collective strategies, structures of representation, articulation and dissemination of ideas, processes of negotiation, and access to power, are forms of energy invested in political capital. In a world of increasing interconnections and a dominance of liberal ideologies and structures, including the values vested in representative democracies, political capital may be increasingly important for community wellbeing.
- **Natural capital** (air, water, soil, biodiversity, biomass, landscape). While all the benefits we derive from natural capital may be seen as a gift of Nature and not the product of human activity, many of these ecological functions are indeed the product of the accumulated work of fellow living creatures in nature (from bacteria, algae and earthworms to forests and ocean fisheries). Moreover, human activities to maintain, restore and improve the integrity of natural resources, the purity of water, the conservation of biodiversity, or scenic beauty can be seen as contributing to natural capital. Ultimately, natural capital is the source of all other capitals and central to any options for wellbeing.

The wealth of a community may be considered to be the sum of its assets or capitals. But as with other expressions of wealth, these may also be concentrated in few hands. So community wealth is not the same as community wellbeing.

## Community Wellbeing

Community livelihoods include the ways and means of satisfying peoples' fundamental needs, and how well these needs are satisfied determines the wellbeing of the community. Conventional approaches to defining community development are based for the most part on economic indicators, disregarding fundamental aspects of community wellbeing. More integral approaches have begun to include some social indicators, such as aspects related to health and education, as in the case of the Human Development Index (Stanton 2007). The holistic approach proposed here considers *community wellbeing to be the extent to which fundamental needs are satisfied*, based on a defined set of fundamental human needs (Max-Neef et al 1986), a spectrum of community assets (Montoya 1999; Flora et al 2004), the recognition of the need for community ownership of the processes that



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improve their wellbeing (Taylor-Ide and Taylor 2002; Reed and Pradeep 2004), and the acknowledgement that a healthy environment is the foundation for sustained community wellbeing.

## Community Wealth

As stated above, each community has its own unique way of directing and investing its energies to create community capitals, from which satisfiers are extracted to satisfy needs and improve wellbeing. In other words, the wealth of communities is found in their diverse community capitals. However, while some sort of community wealth is necessary for achieving wellbeing, wealth alone does not necessarily imply wellbeing. Community capitals must be properly distributed, harnessed and directed in order to bring about community wellbeing.

The use of the qualifier “community” for the different capitals mentioned refers to the fact that the capitals are the products of work by persons belonging to or with a stake in the community, but does not necessarily mean that the capitals are common property. Each community capital can have a wide array of ownership and access regimes, depending on how community efforts are controlled and managed. For example, financial capital in a community may be predominantly private income that is unevenly distributed, or on the contrary it may be predominantly in the form of tax revenue that nourishes a community fund, with a high degree of equity in its distribution and potential use. Similarly, cultural capital such as education, information and knowledge may be predominantly in the hands of an elite few, or may be evenly shared among all community members. Therefore, it is necessary to also consider who contributes to which capitals, who owns them, and who has access to them to satisfy needs. Ultimately, it is the equitable satisfaction of needs, and not the sum total of community capitals or wealth, that determines community wellbeing.

## Community Poverty

Community wellbeing is the increasing satisfaction of fundamental human needs. As mentioned earlier, we see these fundamental human needs as not infinite, but finite, few in number, and common to all humanity in different places and times. This view allows a universal application of our conceptual framework, facilitating analysis across cultures and over time. With a limited set of perceived needs, it becomes relatively simple to monitor changes in the satisfaction of these needs and therefore gauge the wellbeing of a community. If we consider community wellbeing to be the sum of the satisfaction of fundamental needs, any unsatisfied need presents a gap in the fabric of wellbeing, and represents a specific form of poverty. In other words, each unsatisfied need represents a specific form of poverty within a community. So, instead of considering “poverty” as a reductionist one-size-fits-all term, but rather looking at it as the expression of diverse deficiencies in fundamental need satisfaction, we can better monitor the corresponding changes in a community by considering poverty as a state with many different manifestations in different contexts.

## Subtractive and Summatory Capitals

An important characteristic to consider about community capitals and their possible contribution to community wellbeing, is their *subtractive* or *summatory* nature. A subtractive capital implies that the use of its resources tends to reduce it, until the capital is replenished by further work or investment. For example, in the case of financial assets, money extracted from a savings account reduces the total amount in that account until further financial capital is created and reinvested. Natural assets often present a similar situation, where, for example, a resource harvested for one purpose (such as marine turtles hunted for meat and shells), becomes unavailable for another purpose (such as a tourist attraction). *A summatory capital, on the other hand, is a capital such that, the more it is used, the more there is of it to go around.* This is typical of social and cultural capital, as well as human and political capital, whose use constantly creates and recreates it. The more social relations, information, skills and collective organization are made use of, the more they are strengthened. This quality is important to consider when making cost-benefit analyses of investments in the diverse community capitals in the quest for community wellbeing.

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## Participatory Methods

The following are some of the methods derived from the above conceptual framework that have been fruitfully used in projects aimed at improving environmental and community wellbeing (Montoya and Drews 2006; Montoya 2010). A Community Livelihood Improvement Project (CLIP) may be proposed within the community, or it may be proposed by an external agent. The objectives may be narrow or wide in scope. (For a detailed roadmap for implementing a CLIP see Montoya and Drews 2006.)

### Community Baseline Assessment

To start, it is useful to have participants answer the questions: 1. Who are we? 2. What do we do? 3. What do we have? 4. How are we? 5. Where do we want to go? The first two questions will help establish the contours of the community and its livelihoods. The third and fourth questions will provide insight into the perceptions regarding community assets, satisfaction of fundamental needs and community wellbeing. The fifth question may help reveal a collective vision (or disparate visions) and will provide the basis for the ensuing direction of the project. Techniques for administering these questions may include surveys, interviews, focus groups, and so forth.

### Community Capitals Workshop

A workshop where community members collectively identify community capitals is a useful way of introducing and sharing the conceptual framework, but also serves to create awareness of often undervalued assets present in the community, such as social capital, cultural capital and even natural capital. It may also be helpful in identifying ownership and access regimes of the different community capitals, and whether or not they contribute to community wellbeing.

### Common History Workshop

In some cases it may be meaningful to explore the history of the community as a way of consolidating a common identity, and as a means of demonstrating the agency of participants. Each individual can be asked to list important milestones in the community's history, as well as significant moments of their own personal histories. Both can be integrated into a common timeline to reveal how each person forms part of a collective and shared history. Once it is shown that all have played a role in the community's past history, it is easier to recognize community members' agency in shaping their future. This can facilitate community appropriation and direction of a CLIP, and interest and commitment in monitoring its progress.

## Monitoring Changes

Community livelihoods are affected by many factors that either facilitate or impede the achievement, maintenance, and improvement of community wellbeing. Wellbeing differs from one community to another depending on the subjective perceptions of its members of how well their needs are satisfied, and these perceptions may change through time. Monitoring community wellbeing, then, implies not only measuring the satisfaction of fundamental needs at one point in time, but also taking into consideration how and to what extent these needs are being satisfied over time. Community wellbeing is the sum of the wellbeing of all its members, so monitoring wellbeing must also consider issues of equity. Increasing control over one's own livelihood strategies and needs satisfaction is a fundamental aspect of community wellbeing. Therefore issues of autonomy must be also considered. Finally, the ways in which communities reduce their vulnerability and increase their resiliency to social, economic, and environmental threats or shocks is a fundamental indicator of community wellbeing. In each of these general areas, there are specific processes that need to be monitored.

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## Sustainability

Sustainability can be monitored along different points of the “livelihood continuum” (or the path that goes from activities and work, to investment in community capitals, which are then used for the satisfaction of fundamental needs, and resulting in community wellbeing; see Fig. 1), beginning with the sustained stewardship of community capitals, and particularly of natural capital, then going on to the sustainability of satisfiers so that they are synergistic, rather than individual, destructive, or pseudo-satisfiers, and finally to the sustained perception of satisfaction of fundamental needs.

- **Stewardship:** This considers change from lack of concern or action regarding the condition of the natural environment, to a greater and more active management of natural resources or respect for Nature, resulting in a sustained offer of benefits provided by nature. Communities might measure this change in terms of healthy and resilient ecosystems with multiple benefits for the community.
- **Synergy:** This focuses on the nature and the selection of satisfiers along a gradient. A gradient of positive change goes from pseudo-satisfiers and destructive satisfiers, to satisfiers that attend a single need, to synergistic satisfiers that attend to multiple needs with a multiplying effect. Communities might monitor this change in terms of a decreased need for a multiplicity of satisfiers, and a growing presence of holistic satisfiers that attend to many needs, such as healthy human relations, healthy environments, and growing opportunities for the flourishing of biocultural diversity.
- **Sustainability of needs satisfaction:** This focuses on how fundamental needs are being increasingly satisfied through time. A gradient of positive change goes from temporary satisfaction of specific needs, to a growing and more permanent satisfaction of most needs.

## Equity

Issues of equity can also be looked at along the livelihood continuum, beginning with who is considered to form part of the “community”, who carries out the diverse activities, who contributes to the different community capitals, who has access to these, and finally, whose needs are being satisfied. Monitoring equity needs to take into account:

- **Solidarity:** Monitoring solidarity focuses on how the work invested in capitals is organized. The gradient of positive change goes from individualized efforts for private gain, to collaborative efforts for the common good. Communities might measure this in terms of improved community relations, communication and collective initiatives.
- **Summatory potential:** This implies monitoring the movement from investing in subtractive assets whose resources diminish when used, to investment in summatory assets whose resources increase when used, such as social capital, cultural capital or human capital. As they increase with use, they are more amenable to equitable distribution. The gradient of positive change goes from investing predominantly in subtractive capitals, to growing investments in summatory capitals. Communities might monitor this change in terms of increased value placed on their social and cultural heritages, their protection and maintenance. Improved stewardship of natural capital may also be seen as a measure of increased summatory potential, as healthy environments provide synergies that contribute to all other capitals.
- **Equitable satisfaction of needs:** Monitoring the equitable satisfaction of needs will focus primarily on perceptions around the processes of contributing to community assets, accessing these, and deriving satisfaction for fundamental needs. The gradient of positive change goes from only a minority having access to community capitals and the satisfaction of needs, to this reaching an increasing majority. Communities might monitor this change in terms of objective opportunities and subjective perceptions of community members regarding access to community capitals and their levels of satisfaction of fundamental needs.



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## Autonomy

The issue of autonomy refers to the agency communities have in controlling their livelihoods, governance and destinies. With greater autonomy comes the need for greater local accountability. Monitoring autonomy needs to take these factors into account:

- **Decision-making:** Monitoring this focuses on control over community assets and livelihood processes and how these are mobilized by the community for its wellbeing. A gradient of positive change goes from the community having little or no control over decisions that affect their livelihoods and wellbeing, to having only sporadic control over these decisions, to achieving structural control over most of these decisions. Communities might measure this in terms of the creation of governance structures or institutions that offer the means for having a greater say, authority and control over decisions affecting community assets, livelihoods and wellbeing.
- **Accountability:** With greater autonomy, greater local accountability and transparency is also necessary. A gradient of positive change goes from the community having limited clarity in the assignment of roles and responsibilities, to having greater transparency in community governance and resource management. Communities might measure this in terms of the implementation of open and accessible systems of accounting and administration, as well as improved community relations and responsibility.

## Security

Security is a multifaceted aspect that has to do with confronting existing and potential threats through vulnerability reduction, resiliency and the capacity to adapt to challenging environmental and socioeconomic conditions.

- **Vulnerability reduction:** Environmental threats (such as contamination, species extinction, climate change, etc.) and socioeconomic threats (such as armed conflict, growing economic inequalities, land grabbing, globalized markets, etc.) form part of a complex overarching context many communities face. Communities are probably best equipped to implement significant vulnerability reduction strategies when the other indicators of positive change, i.e. Sustainability, Equity and Autonomy are well situated. Communities might measure this in terms of the establishment and implementation of locally controlled policies of long-term environmental conservation and social welfare.
- **Resiliency and Adaptability:** Despite efforts of vulnerability reduction, communities may continue to face threats. The capacity to withstand shocks and recover (resiliency), or to respond to these shocks by reinventing or reconfiguring the community contours, livelihoods and ways of achieving wellbeing (adaptability), may be measured in terms of timely knowledge mobilization, early warning systems, social safety nets, diversified economies, strong solidarity systems, well developed human capacities and creativity, and respectful and enabling relationships with a healthy biodiverse environment.

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## Conclusion

This methodology is not to be taken as a recipe, but rather as a set of possible ingredients to inspire unique and autonomous proposals for environmental and community wellbeing. While not explicitly derived from a biocultural diversity paradigm, it nonetheless follows a similar line of thinking that cherishes the links between territories and peoples, values biocultural diversity for its own sake, and believes in the creative power of biocultural diversity to generate viable alternatives to the prevailing and woeful tendencies of social and environmental degradation. Hopefully, this methodology will contribute if only a grain of sand to building a world capable of containing many worlds, capable of containing all worlds.

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# Countering Local Knowledge Loss and Landrace Extinction in Kenya: The Case of the Bottle Gourd

Yasuyuki Morimoto

*Community-based projects must be tailored to specific local needs, contexts and cultures, thus posing a big challenge. Such collaboration often requires time and flexibility that is difficult in tightly planned grants and projects. The process of learning from the community takes time and expectations are often high. Intellectual property issues and language communication barriers may also be a hindrance. These issues require sensitivity to the different circumstances of local people and outsiders. Establishing good rapport with local people is the key to the success of a community-based project. A minimum period of time is therefore needed to interact with the community to learn from each other*

**F**or the Kamba people in the Kitui District of Kenya, the bottle gourd (*Lagenaria siceraria*) and its estimated 50 landraces are part of a rich cultural history, having been cultivated for approximately 10,000 years. Known locally as *kitete*, this plant is central to the material culture of the region and has much symbolic and cultural value, as illustrated by the complex belief system that underpins the role of this species in Kamba culture. Diverse utilization was a driving force for the cultivation of so many landraces, with a total of 61 different major uses documented so far. Some of the uses include: *kitete* as food—some landraces are edible, typically eaten in sauces, or boiled or fried; and *kitete* as calabashes—the hollowed-out shells have traditionally been used as containers to hold water, honey, milk and perfume, to name but a few. The shells have also been used for many other purposes: beehives, washbasins, animal traps, musical instruments, and masks. The beautifully decorated bottle gourd is also a popular item for souvenirs and sold in tourist markets in cities such as Nairobi.

Recently, however, these multiple uses and the value of *kitete* have been greatly undermined by the use of plastic containers. This is resulting in an erosion of local knowledge and cultural practices surrounding this species, which is threatening it with extinction. The Kamba culture is intricately intertwined with the *kitete* landraces, and therefore loss of the knowledge of *kitete* threatens the associated local culture, customs and identity and will have a far-reaching impact on the community.

In 2001, the Kyanika Adult Women's Group (KAWG), a local women's group, in partnership with Bioversity International (IPGRI) and the National Museums of Kenya, initiated a two-year project aimed at conserving *kitete* diversity and culture. Other objectives are to generate additional income through promoting uses of *kitete*, consolidating access to *kitete* landraces and retaining the indigenous knowledge of *kitete* within the local communities. During the project, nearly 200 gourd landraces were collected and taken for cataloguing and for propagation in community fields, to produce seed for distribution and exchange. The project teams also gathered information through interviews, and songs and stories were recorded on cassette and documented in a national database in the community's own language. *Kitete* landraces are also described in the local language, using approximately 70 different names. The group established a *kitete* community museum within the village, which displays various types of gourd landraces. The museum also serves as a centre that distributes and stores seeds, and acts as an education centre to provide information for school children and other visitors. In addition, the group has shared information and their experience with other groups in the district through seed fairs,





*Women displaying kitete gourds and kitete seed necklaces at community festival. Photo © Yasuyuki Morimoto/ Bioversity International, 2010*

knowledge competitions, and joint planting activities, as well as internationally by attending workshops and symposiums. Farmers are provided with the means to document their knowledge on a specific topic on audio tape or other media, in their own language, which can then be used in scientific journals or in a national database. This approach is meant to empower the knowledge holders and to recognize their contribution concerning the validity of traditional knowledge systems at the national and scientific level, while ensuring that knowledge holders' rights are recognized.

Some challenges encountered during the project concern the sharing of biodiversity-related knowledge. Sharing knowledge is possible only as long as the people are comfortable with making that information public. When knowledge is specialized within the community and a select group of knowledge holders claim monopoly over or sole rights to the knowledge, information may be guarded. Knowledge may also be withheld when there is economic value at stake, as is the case with some medicinal plants. Another challenge was the management of the documented information, which required advanced editing and archiving skills that were lacking within the group.

The benefits of the project have been wide-ranging. The KAWG women's group now sells seeds, fruits, products such as decorated fruits, necklaces, bowls and other containers and T-shirts, which have significantly increased local income. Marketing bottle gourd products for cash is seen as an incentive to maintain and keep the crop and its diversity. Products are being ordered from local and international entrepreneurs. Incorporating bottle gourd activities in cultural events such as community festivals also helps maintain the crop diversity and related



*Documenting the morphological diversity of kitete gourds in Kitui District of Kenya.*  
Photo © Yasuyuki Morimoto/Bioversity International, 2010

knowledge. The community's motivation for safeguarding the diversity of gourd landraces has increased, and most group members now grow edible gourds, improving nutrition. The project has improved harmony among members and facilitated many neighbouring communities who wanted to form their own groups.

In 2004, the government noted the success of the project and awarded KAWG a small piece of land to establish a new community centre and shop as well as a trophy for the best community-based income-generating project in the country. Despite the fact that the project concept – conservation of traditional crop diversity for community development – has not yet been widely recognized within the local and national government policies, the project's activities are becoming better known. The project has been picked up several times by the local newspapers and awareness of the issues is spreading to other areas and countries. Other communities and countries are now applying the method and approach used for *kitete* to different crops.

The gourd museum and resource centre has continued to be run by the women's group for over a decade since the 2-year project with external partners ended. It supports community members for awareness raising and to increase cultivation, documentation and dissemination of seeds and documented knowledge. The demand for the knowledge in this area is growing, in particular at the local level of the Kitui district and the Kamba communities. The experience of community involvement in collecting seeds and documenting knowledge can be a major factor of increasing the value and use of indigenous knowledge, underpinning social cohesion, empowerment, and human capital in their sustainability commitments.

**Source:** Updated version of project description featured in *Biocultural Diversity Conservation: A Global Sourcebook* (Maffi and Woodley 2010).



## THE ROLE OF KITETE BOTTLE GOURD LANDRACES IN LOCAL CEREMONIES

In the Kitui District, the diversity of landraces of the *kitete* bottle gourd is maintained by the vast symbolic and cultural value as well as the diverse traditional uses of this species. One *kitete* story says that the ancestral spirits were always the first to plant and the first to eat. Among the Kamba people, the belief is that all dead ancestors live as spirits in a place called 'Ithembo', which was either a big tree or a rock cave. These ancestors eat like ordinary people; they also have emotions, and when hungry or angry they can bring calamities to the community such as rain failure and diseases. In the Kitui district, the new harvest is normally accompanied by disease epidemics such as malaria, so sacrifices are made just before the rainy season. Farmers collect all crop seeds and their varieties together – cowpeas, maize, pearl millet, an edible type of *kitete* (*mongu*), a container type of *kitete*, pumpkins, finger millet, sorghum, and so forth. Elderly women take these seeds obtained from different farmers to the Ithembo, and offer them as a sacrifice to the ancestral spirits in order to appease them and ensure a rainy season with a good harvest. The sacrifice is also thought to bring blessings to the planting activity. A traditional healer (*mundu mue*) leads the women, advising them on what to do. At the place of sacrifice, the women form a circle and then pour a mixture of all the seeds in a shallow hole (or in a ceramic pot) while uttering a prayer: 'We have brought seeds to you, ancestors, so that those other seeds we are planting be good seeds. If they will be good seeds we will sacrifice for you in the next season. But if they will not be good seeds, we will not sacrifice to you again.' At the end of the ceremony, they all burst into song as they walk back home. After the crop grows to a stage when it can be consumed, the same elderly women take samples of all these foods to the *Ithembo* for sacrifice. It is believed that by doing this, the new harvest would be blessed and no bad incidences such as diseases would afflict the community. The idea is to make sure that the spirits (who were first to plant) would also be first to eat, and therefore there would be no conflicts between the farmers and spirits.

-- Story told by Mrs. Katheke Mwangangi and Mrs. Wayua Kyalo of the Kyanika Adult Women's Group (KAWG) in Kyanika village, Kitui District, Kenya





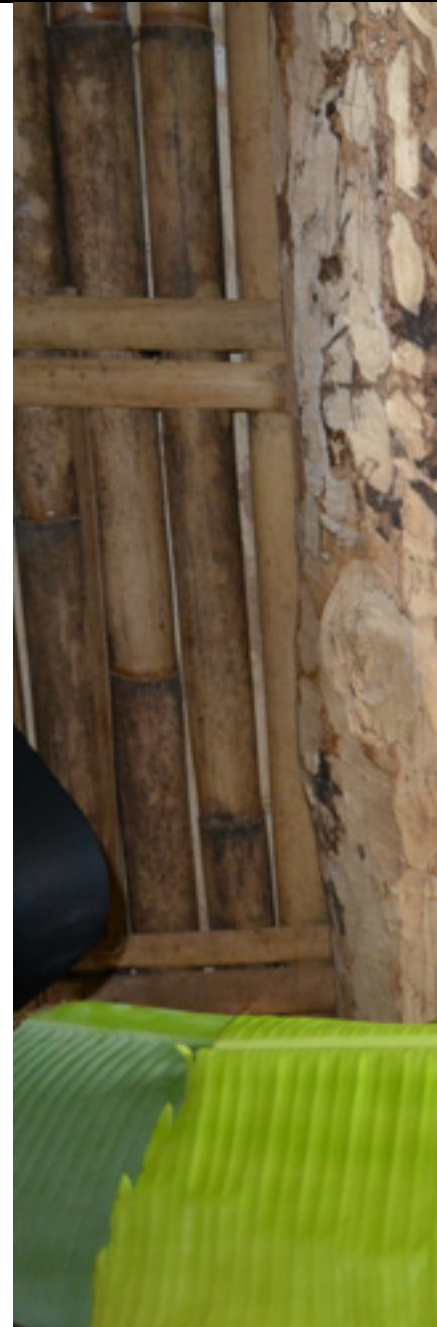
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# Life with Crocodiles: Community-Based Crocodile Conservation in the Philippines

Jan van der Ploeg

*Massive social and economic change, along with drastic environmental transformation, has engendered profound change in the traditional beliefs, knowledge and practices of Agta and Kalinga peoples in the northern Sierra Madre on the island of Luzon, Philippines. Local people had traditionally been knowledgeable about the behavior and ecology of the Philippine crocodile (*Crocodylus mindorensis*), and had passed down this knowledge, as well as the associated beliefs and practices, to the younger generations through stories, myths, taboos and traditional ceremonies. Changes in livelihoods, education and culture of local people through “modernization” and acculturation into mainstream Filipino society, as well as massive immigration into the region, have contributed to eroding traditional forms of knowledge about biodiversity in general and about the Philippine crocodile in particular, by exposing local people to different belief systems and practices that often appeared to belie older beliefs. The critical reduction in crocodile populations, due both to over-hunting and to massive degradation and conversion of the crocodile’s habitat, has in turn contributed to making the relevant knowledge, beliefs and practices obsolete, by reducing people’s familiarity with crocodiles.*

**T**he northern Sierra Madre on the island of Luzon, Philippines, is one of the world’s most ecologically valuable areas. However, the area is also under severe threat from logging, destructive fishing, agricultural conversion, infrastructure development, and hunting, all of which threaten biodiversity in the last forest frontier on Luzon. Rural communities depend heavily on ecosystem functions and forest products. One of the most severely threatened species in the region is the Philippine crocodile (*Crocodylus mindorensis*), now critically endangered throughout the Philippines, and classified in the IUCN Red List in the category for species at highest risk of extinction. Over-hunting of crocodiles, large-scale habitat destruction (including wetland drainage and conversion to irrigated rice—a predominant crop with the “Green Revolution”), and the introduction and widespread use of destructive fishing methods (dynamite, pesticides nets, electro-fishing), all have contributed to this species’ drastic decline.





*Kalinga bugayan preparing a crocodile-shaped rice cake for a ritual. Photo © J. van der Ploeg/ Mabuwaya Foundation 2013*

Another important contributing factor has been the loss of indigenous peoples' traditions and understanding of the species, including ancestral beliefs that once protected crocodile populations. Local people, particularly fishers, traditionally were knowledgeable about the behavior and ecology of the crocodile and its wetland habitat. Fishers' knowledge was generally based on opportunistic observations over a long period of time, and was passed down across generations through stories and myths. Traditional beliefs and practices included strong taboos against killing and eating crocodiles. For example, in the past, the indigenous Kalinga communities in the remote area of the municipality of San Mariano in the Sierra Madre mountain range would not kill crocodiles because they believed the crocodile would take revenge through powerful spirits. People would make offerings to crocodiles in religious ceremonies or before crossing rivers, showing the veneration local communities had for crocodiles.





*A Kalinga offering to the ancestors Photo © J. van der Ploeg/Mabuwaya Foundation, 2009*

Over the past fifty years, however, tremendous changes have occurred in the livelihoods, education and culture of local people, as well as in their environment, leading to the loss of many of these traditions. Economic circumstances, massive immigration into the region, the expansion of the State, “modernization” and acculturation into mainstream Filipino society—including modern education that teaches little or nothing about the local environment—all have eroded traditional forms of knowledge about biodiversity. In addition, the degradation of the local environment poses severe threats to sustaining local knowledge about biodiversity, as traditional certainties about the environment are rapidly changing. Local knowledge no longer has the same meaning or function in this changing social and natural environment. Further, the behavior of immigrants to the area sometimes appears to belie traditional knowledge. During the logging boom in the 1970s, Ibanag and Ilocano migrants settled in the area and bought land from the Kalinga. These newcomers often have very different attitudes towards crocodiles: they believe that crocodile meat is an excellent medicine against asthma, that crocodile scales have magical power and that a crocodile penis is an aphrodisiac. To them the only good crocodile is a dead crocodile. Immigrants started killing crocodiles out of fear, and hunters killed them for commercial purposes. Since the local Kalinga people saw no revenge from the spirits, they began to change their worldview. In turn, the decline in crocodile populations has furthered the loss of the related traditions. Diminished familiarity with this species engenders fear of the crocodile and increases the likelihood that the animal will be killed from lack of local knowledge—a clear example of the link between cultural beliefs and practices and species conservation. In theory, the Philippine crocodile is legally protected in the Philippines. However, the Department of Environment and Natural Resources (DENR), mandated to protect the country’s wildlife, lacks the capacity and resources to effectively enforce environmental legislation in the remote rural areas.





*Enhancing cultural values: the Philippine crocodile dance show links crocodile conservation to Kalinga culture.*  
Photo © G. Persoon 2011

The Mabuwaya Foundation ([www.mabuwaya.org](http://www.mabuwaya.org)), a Philippine NGO established in 2003, whose name is a combination of the two Tagalog words *mabuhay* 'long live' and *buwaya* 'crocodile' links indigenous and local governments and the international conservation movement through the development of a community-based conservation strategy in partnership with the Agta and Kalinga peoples in San Mariano. Under the Philippine Indigenous People's Rights Act, indigenous peoples can claim rights to their ancestral land. In practice, however, red tape, corruption and institutional conflicts between the DENR and the National Commission on Indigenous People inhibit the issuance of an ancestral domain title to indigenous communities. The Mabuwaya Foundation assists the indigenous communities in obtaining land rights, while seeking to conserve the small and fragmented Philippine crocodile population that remains in the area. Traditional practices that were beneficial for crocodile conservation are revived and the traditional knowledge on the behavior and ecology of the crocodile is documented. The project thus promotes past traditional practices in a contemporary context.

The project also promotes scientific research on the ecology of the crocodile and supports a public awareness campaign, with all communication material produced in the local languages Tagalog and Ilocano. It aims to instill a sense of pride in the presence of the Philippine crocodile and in the related cultural traditions, thus making a crucial link between species conservation and the culture and identity of the people. The Local Government Unit (LGU) of San Mariano has become an active partner in crocodile conservation. In 2001, it declared the Philippine crocodile the flagship species of the municipality, enacted local ordinances that protect the crocodiles and established the very first Philippine crocodile sanctuary of the country, covering one of the breeding areas. Five crocodile sanctuaries and fourteen fish sanctuaries have been declared and delineated. The sanctuaries are



Suarez (1734)

co-managed by local communities. The conservation program is intended to be entirely community-based: without the communities' full consent, the LGU of San Mariano cannot declare any sanctuaries.

The main challenges to this ongoing project are poverty and weak governance. A small conservation project can do little to alleviate poverty among 40,000 people who earn less than US \$2/day. It is necessary to empower village councils to actively enforce environmental legislation that protects wetland resources on which the community depends. Livelihoods and incomes are not improving in San Mariano despite fundamental changes in the landscape: mining and biofuel plantations are new developments in the area with potential harmful effects on people, wetlands and crocodiles. Civil insurgency is another problem in the area. Maoist insurgents and the Philippine army are fighting for control of areas where the project is working, and communities are often caught in the conflict.

The Philippine crocodile remains critically endangered, but despite the challenges there is some degree of success. The number of crocodiles in the area now stands at around 60. There were five crocodile nests in 2012, showing a recovery in the wild. The crocodile sanctuaries also strengthen socio-economic development. There is growing societal support to stop the use of destructive fishing methods. Enforcing environmental legislation helps communities to fish in a more sustainable way. The Philippine crocodile has become the flagship species of local environmental stewardship.

**Source:** Updated version of project description featured in *Biocultural Diversity Conservation: A Global Sourcebook* (Maffi and Woodley 2010).





## The Kalinga and Crocodiles

A remnant Philippine crocodile population survives in the northern Sierra Madre mountain range on Luzon. Here, the species survives in the ancestral domains of indigenous people: the Kalinga. The word kalinga literally means enemy in Ibanag, the dominant language in the Cagayan Valley, and was used by the Spanish friars in the lowlands to refer to the infidels in the mountains. There is still much debate about the origins of the Kalinga. Most likely the Kalinga are the descendants of people who rebelled against colonial repression and conversion in the 16th and 17th century, and fled to the forest. Very little is known about the culture and language of the Kalinga. They nowadays form a small, closed community in two remote watersheds in the municipality of San Mariano: the Ilaguen River and the Catalangan River.

Crocodiles play an important role in Kalinga culture. Crocodiles are regarded as the embodiment of the ancestors. During festivities and healing rituals (patunnuk) the Kalinga offer rice cakes to the ancestors in the form of a crocodile. Crocodiles are associated with mystic power and fertility. People for example narrate that their chiefs can change at will into fierce crocodiles, and that faith healers (bugeyan) can command crocodiles to attack people as a punishment for antisocial behavior. People regularly place small offerings along creeks to appease the ancestor-crocodiles.

Killing or disturbing an ancestor-crocodile is considered an unwise provocation: ‘you cannot kill something that is stronger than you’. Not all crocodiles are ancestors, however: it is believed that ancestor crocodiles can be distinguished from normal crocodiles by their large size, or by their strange colors, or by having four instead of five toes. Conversely, not all ancestors are crocodiles: the ancestors can manifest themselves in many different ways and shapes. In any case, it is wise to treat crocodiles with respect: ‘the crocodile will not bite innocent people; if you do not harm the crocodile, the crocodile will not harm you.’ Occasional crocodile attacks on humans are regarded as the punishment of the ancestors for the transgression of a social taboo. When a boy was bitten in 2000 people for example reasoned that this was because his father had thrown stones to the crocodiles.

Of course, the Kalinga have never purposely protected crocodiles. There is, after all, no need to protect the ancestors... The traditional beliefs and practices of the Kalinga have provided some form of protection to the Philippine crocodiles in the wild. But Kalinga culture is rapidly eroding as markets, schools and televisions become more accessible. Most Kalinga have converted to Christianity. People have become reluctant to talk about their traditions and beliefs, afraid of being labeled as stupid, backward or superstitious. Many Kalinga youngsters are ashamed to speak their language, and many people longer identify themselves as Kalinga. People claim that in the past crocodiles carried their chiefs and heroes across the rivers, but say that ‘they no longer believe these old stories’. The Kalinga still refrain from killing the species, but don’t object if other people are foolish enough to risk the fury of the ancestors.

**Source:** Excerpted from: ‘Friendly Crocodiles and Vengeful Ancestors: Conserving the Critically Endangered Philippine Crocodile in Dinang Creek’, by Jan van der Ploeg, *Langscape* 2:11, Summer 2012



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# Promoting Cultural and Biological Diversity: An Educational Program for Rural Communities in Peru

Grimaldo Rengifo and Jorge Ishizawa, PRATEC

*The Peruvian Andes are recognized as a major site of biological diversity in the world. The Andes have 80% of the planet's ecoclimatic zones (82 out of 103 zones). These range from the coastal desert area to the arid western slopes, to the inter-Andean valleys, to the mountains, and the Amazonian piedmont. The central Andes are one of the eight centers of origin of agriculture, the domestication of plants in this region dating back at least 8,000 years. The region also exhibits the highest inter- and intra-specific agrobiodiversity in the world. This diversity is found in the peasants' chacras or cultivated fields, and is due to the care, protection, affection and respect with which peasants nurture their plants. Among traditional societies in the region, an attitude of respect is central to life and is essential for nurturing diversity, both biological and cultural. Respect is expressed in relations between Andean communities and their deities, between human beings and natural entities, and between humans. Andean peasant culture and agriculture are inextricably linked. In the Andes, culture cannot be understood without understanding agriculture.*

At present, the main characteristic of Andean rural life is the peasant community and small farmer production. Andean peasant agriculture is based on local practices and inputs, and still produces a major part of the fresh food that reaches urban markets. Over time, however, there has been a general loss of respect among people in the region, and this has come to constitute a threat to biodiversity conservation. In the 1970s and 1980s, rural “modernization” and agricultural industrialization, predicated on the eradication of native cultures as the price to be paid for progress—resulted in Peru joining the roster of net food importing countries in the world, and in decreasing agricultural indices for production and productivity.

The Andean Project for Peasant Technologies (Proyecto Andino de Tecnologías Campesinas, PRATEC, [www.pratecnet.org](http://www.pratecnet.org)) is a Peruvian NGO that since the late 1980s has been devoted to the recovery and valorization of traditional agricultural practices and associated knowledge. PRATEC participates in the efforts of Andean Amazonian peasant communities to counter the socially and ecologically destructive effects of industrial agriculture and governmental agrarian policies. By using local knowledge and the practice of traditional “ritual agriculture”, and by adopting a non-dualistic, eco-centric worldview, PRATEC supports the resurgence of local approaches to agriculture, which it sees as radically opposed to Western industrial agriculture. The Andean peasant practice of ritual agriculture embraces kinship-oriented visions of the land and encourages empathetic actions that illustrate respect for all living entities of the biosphere. Agricultural activities include ritual actions, utterances, and offerings that express both a deep respect for *Pachamama* (Mother Earth) and communitarian aspects that characterize the worldview of the Andean people.

In the initial phase, PRATEC's institutional efforts were devoted to the documentation of peasant agricultural practices and training through an annual course on Andean peasant agriculture. The unexpected outcome was the formation of community-based organizations, called “Nuclei for Andean Cultural Affirmation” (NACAs), small NGOs that presently support rural communities in six regions of Peru. The NACAs work with families, who traditionally nurture biodiversity in their chacras to help them remember the ways in which their ancestors learned respect for the land. These efforts made it clear that, beyond increases in production and productivity,



Boys in their chacra (cultivated field) in Matara Cajamarca, Peru. Photo © Jorge Ishizawa, 2009

campesinos see biodiversity conservation as intimately related to the maintenance of a worldview, or cosmovision, based on respect and affection. Agricultural practices in the Andes, including soil preparation, seed diversification, sowing, harvesting, storage, and food preparation, can only be understood in the context of such cosmovision. The idea of the annual course was to train people to understand and interpret this cosmovision. The goal of PRATEC's programs with the NACAs has been to recover the respect for biodiversity among all members of the local communities.

Subsequently, PRATEC conducted an *in-situ* conservation project aiming to stop the genetic erosion in the extraordinary diversity of native cultivated plants and their wild relatives in the central Andes that has been nurtured for millennia by *campesino* communities, and that was threatened by the modernist spread of monoculture. The project's overall objective was to conserve agrobiodiversity in the *chacras* of Andean Amazonian campesinos. In addition to focusing on the *chacra* and its surrounding space, the project addressed other aspects, including the social organization of in situ conservation, awareness of the importance of maintaining the diversity of native cultivated plants and their wild relatives, policies and legislation to promote in situ conservation, market





Teaching the children in the Upper Amazon region of Peru Photo © Jorge Ishizawa, 2009

development for agrobiodiversity, and an information system for monitoring agrobiodiversity. The project found that agrobiodiversity is the result of Andean Amazonian agricultural practices. Here, as in other original agricultural areas, making *chacra* is not a “way of making a living” but a way of life.

Centering on the recovery of respect in the communities involved in the *in situ* project, the NACAs endeavored to restore and/or strengthen the traditional authorities of the *chacra* and the *sallqa* (the wild). This was attained through the affirmation or revival of rituals and festivals in the agricultural cycle. Visits between communities for seed and knowledge exchange were also instrumental in the mutual learning that led to the recovery of community memory about how their ancestors lived in sufficiency based on diversity. The project has been successful, especially in showing that vigorous practices of *in situ* conservation are still widespread in many places in the Andes and the Upper Amazon region. The threat of genetic erosion does not appear to be imminent. A more immediate result has been the growing national awareness and pride in being a mega-centre of biodiversity, which is expressed in the international recognition of the excellence of Peruvian cuisine based on the diversity of native plants.

PRATEC worked with NACAs located in the Andean highlands on a program called “Children and Biodiversity” (2002-2008). The program had an important educational component that sought to incorporate local knowledge



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into the school curriculum and to involve parents in school activities. The focus of the program was to explore the possibility of the community nurturing its school. It also aimed at restoring the autonomy and authority granted to children in the traditional system of governance, as in the past children were able to exercise authority within their community, for instance taking care that animals did not enter the chacras and sanctioning those who let their animals trample their neighbors' crops.

These initial aims were in accordance with the traditional authorities in the communities, who had been unanimously pointing to “loss of respect” as the main obstacle for community well-being. The educational system was identified as a major threat to the conservation of the diversity of native plants, because respect and affection among entities of the *Pacha* (local world) had been eroded by the imposition of a system that disparages local traditional worldviews. The signs were clear: “Children and young people no longer greet their elders.” This was after 50 years since these same communities had demanded that the educational system help transform their children and equip them with skills so they could migrate to the cities and to a life of “progress”. Children were to be transformed so they were prepared to live in a future of “progress” instead of a present that was regarded as backward and inferior.

In discussion with parents, it was made clear what the traditional authorities wanted from the school. This was expressed as *Iskay Yachay* in Quechua and *Paya Yatiwi* in Aymara. They both translate into “two kinds of knowledge”: their own and the school's. The documentation of the local knowledge of conservation practices included in local traditions became the basis of the school curriculum. The project adopted an intercultural approach allowing the coexistence of diverse “educational cultures”, that is, modes of intergenerational knowledge transmission of a given community. This concept is particularly useful in order to go beyond the dualism between home-based vs. school-based local/indigenous knowledge transmission. The project strategy included the training of rural teachers as cultural mediators, capable of integrating local knowledge into the school curriculum, as well as the consolidation of orality as a basis for literacy. The central finding of the Children and Biodiversity Project is that *Paya Yatiwi / Iskay Yachay* has three interrelated components: the recovery of respect in the community (towards their deities and nature and among the community members themselves); learning to read and write while respecting and valuing the local oral traditions; and teaching the skills to allow people to live a good life.

The Children and Biodiversity project has been successful in clarifying the challenges that must be faced by intercultural education. The incorporation of local knowledge into the school curriculum and the adoption of the local agricultural calendar have become a national policy. The three components identified in the case of rural education have inspired other institutions, especially in the central Andes, to initiate training programs for rural teachers. Networks of rural teachers have been formed in the localities where the program was active and provide the surest guarantee of the sustainability of program results. This process of cultural “regeneration” takes time since the communities themselves must find them relevant to their own life world. Meanwhile, training of educators continues, as this process requires not only a new attitude and conceptual framework, but also an alternative to training by mainstream “rural development experts”.

**Source:** Modified from project description featured in *Biocultural Diversity Conservation: A Global Sourcebook* (Maffi and Woodley 2010).



# Place and the Andean Cosmivision / Worldview

Local Pacha: Representation of the Macrocosm at the Microcosm Level



Design: Ketill Berger

## The Andean Cosmivision

Andean life revolves around agriculture. At the core of the Andean cosmivision is the nurturing of life as a whole, or *kawsay*: *SumaqKawsay* in Quechua, *SumakKawsay* in Kichwa, and *Suma Jakaña* or *Qamaña* (buen vivir, or good living) in Aymara (See Figure 1). Such nurturance unfolds in place, in the local *pacha* (local bio-cultural and ritual landscape; macrocosm at the microcosm level). Within the local *pacha* people live in *ayllu*, a natural collectivity or kinship group. *Ayllu* is not restricted to human lineage/blood kinship, but includes each member of the local *pacha*, grouped in three communities of equivalent beings, both visible and invisible, and all alive: *runas* (humans), *sallqa* (nature) and *apus/huacas* (deities).

Learning how to nurture and letting oneself be nurtured with respect, empathy, reciprocity and joy are primordial principles and practices in the Andes. Harmony and balance are constantly procured through dialogue, reciprocity, rituals, ceremonies, festivities and a mutual communal respectful and nurturing (*ayni*) relationship, among the three communities of the local *pacha* and all its members; nobody is excluded. In this way, Andean indigenous peasants have developed sophisticated responses to the variety of beings inhabiting a particular agricultural place or *chacra*, the small field crop at the centre of everyday practices and rituality. The *chacra* is harbored within *pacha*, the biocultural landscape that Andean indigenous peoples have become intimate with, the landscape that they have come to know in all its expressions over time.

Through ritual, the Andean worldview purports to sustain the creation and recreation of diversity in all of its expressions and practices. The contemporary concept of sustainability is intrinsic to this millenary worldview; the Andean cosmivision is devoted to the procurement of balance and harmony among all living beings demonstrated both in daily and ritual practices. This unique approach to life has rarely been understood by the colonial mindset that has dominated for the last 500 years, thus marginalizing and threatening the Andean way of life. Concepts are embedded within a particular culture and worldview. For instance, autonomy, development, agriculture, place, sustainability, nature, culture, knowledge, seed, kinship, biodiversity, environment, ecosystem and conservation do not hold the same meaning in every culture. The Euro-American concept of “the good life” is far removed from that of *buen vivir*. It is important therefore to identify where and how such dominant view continues obstructing the growth, regeneration and strengthening of an indigenous worldview such as the Andean worldview.

**Source:** Excerpted from: Tirso Gonzales, “Indigenous Biocultural Diversity in Times of Neoliberalism and Climate Change: PRATEC-NACA, an Emerging Paradigm in the Andes”, *Langscape* 2:12, Fall 2013, pp. 35-39





The legal landscape. Credit © Natural Justice, 2013

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# Biocultural Community Protocols

Kabir Bavikatte and Harry Jonas

## The Right to Endogenous Development

**E**ndogenous development describes a community process of defining and working towards future plans according to local values. Endogenous development processes promote the use of existing resources, assets and values within communities to support the collective management of local traditions, cultures, spirituality, and natural resources. Endogenous development also stresses that external interventions and assistance must be undertaken only when the community grants free, prior and informed consent (FPIC).

Interventions aim to strengthen communities' capacities for endogenous development by agreeing on a vision of success. The vision of success consists of community-endorsed changes in practices and behaviors that would occur after a certain time span within a locality as a result of strengthened endogenous development. These changes often relate to management of natural resources, diversity of livelihood strategies, local leadership and governance, intra- and inter-community dialogue, dignity, value attached to cultural and spiritual knowledge, and capacities to negotiate access to external knowledge and resources.

Endogenous development is founded on the principle of self-determination, which is also reflected in international law. Article 3 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) states that, "Indigenous peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development." The UNDRIP's explicit recognition of the centrality of endogenous development to self-determination constitutes a political victory at the international level, but since compliance with UNDRIP is voluntary, its effective implementation often remains elusive at the local level. Endogenous development is already present and active in all indigenous and local communities and reflected in their capacities for self-determination. However, many communities' capacities are undermined by the complex series of social, cultural, spiritual, economic, political, and legal relationships in which they exist.

In this context, constructive engagement with other communities, external stakeholders and regulatory frameworks according to communities' locally defined priorities and values is an integral element of the endogenous development process. For example, the endogenous development of livestock keepers relies on access to migration routes, communal pastures and seasonal grazing areas controlled or owned by other communities, private landowners or government agencies. Their livestock breeds may also be subject to national agricultural policy and the focus of research on animal genetic resources for food and agriculture. Livestock keepers' endogenous development, in this case, is dependent on more than just the community-level decisions about their future. It also depends on the actions and inactions of external stakeholders.

## The Law as a Double-edged Sword

**T**he right to endogenous development is embedded in communities' customary laws and enshrined in international legal instruments. However, communities face many challenges when engaging with national and international laws. Critically, while aspects of traditional livelihoods such as natural resource use, culture, spirituality, and traditional knowledge are integrally linked, the law addresses them separately. For example, a





*3D Mapping Project in Ethiopia. A participant is putting a pin on the map while others are observing where he is placing it. The participant explained that it is a sacred site which they call Ujuba. Discussion amongst the participants revealed a struggle for its protection from the mainstream religions that are demonising indigenous sacred natural sites. Photo © Million Belay/MELCA*

community who manages livestock, agricultural lands and non-timber forest products does so within a local landscape and according to customary laws. However, the national or state laws implemented by government agencies address each type of resource separately. This results in the legal fragmentation of an otherwise interconnected body of values, knowledge, practices, and resources. The same is true for laws intended to enact the UNDRIP's overarching principle of self-determination. Various frameworks, such as those dealing with culturally appropriate education, customary uses of natural resources and the protection of traditional knowledge, are intended to enable communities' cultural autonomy but are most often implemented in isolation. The fragmentary nature of these laws compartmentalizes and reduces communities' pursuits of self-determination into issue-specific sites of struggle.

This issue is of direct relevance for endogenous development. Towards the overall aim of self-determination, communities are required to engage with multiple stakeholders within a variety of regulatory frameworks. Communities thus face the choice of either rejecting or engaging with these disparate and inherently limited frameworks. While the former is virtually impossible because of the strength of national legal systems, the latter raises questions in the community about how to manage the interface between their holistic ways of life and the disparate legal frameworks and implementing agencies. In this context, the practical realization of the right to self-determination is contingent on communities' ability to engage with legal frameworks and external agencies in ways that support, rather than undermine, their endogenous development processes.





*A custodian (Tandansup) of the sacred groves in Tanchara, inspects an illegal mining site together with CIKOD staff and a community member. The forest in the background to the left is a sacred grove which is potentially impacted by water pollution. Photo © Bas Verschuuren/COMPAS, 2011*

## What are Biocultural Community Protocols?

Rights-based approaches should not be seen as a panacea for endogenous development. However, they can support communities to exercise their rights. In such cases, making use of legally recognized rights and obligations can help facilitate constructive engagement with stakeholders in accordance with communities' values and endogenous development plans. Through the development of biocultural community protocols, Natural Justice is working to bridge the gaps between existing legal rights frameworks and communities' rights to self-determination and endogenous development.

Biocultural community protocols help communities adopt a rights-based approach to their endogenous development. A protocol is a community statement of self-determination that details its existing resources, assets and values and can be used as a tool for safeguarding locally identified priorities. It clarifies local procedures as well as terms and conditions for engaging with other actors such as government or conservation agencies. This way, communities effectively underscore that they are not merely "stakeholders" whose views may or may not be taken into account, but are in fact rights-holders with entitlements under law that others are obliged to respect. A protocol helps the community articulate its norms and values in its own voices while still being understood by non-community actors.

Such a process better enables communities and their stakeholders to work constructively and collaboratively towards the management of their biocultural heritage. Protocols also enable communities to assert their procedural and substantive rights within the context of external interventions such as proposed development projects. They can help ensure that communities are fully informed about any proposed interventions according to the principle of FPIC and fully involved in the development, implementation, monitoring, and evaluation of the specific elements

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of projects that affect their lands and ways of life. Overall, biocultural community protocols empower communities within the multiple legal frameworks that affect their lives. In doing so, they help communities minimize the power asymmetries that often characterize government-community relations and promote a more participatory and endogenous approach to the future management of natural resources and biocultural heritage.

## The Biocultural Community Protocols Toolkit

To support communities in securing their rights and responsibilities and strengthen customary ways of life and stewardship of their territories and areas, *Natural Justice* developed *Biocultural Community Protocols: A Toolkit for Community Facilitators* ([www.community-protocols.org/toolkit](http://www.community-protocols.org/toolkit)). The Toolkit is directed primarily towards facilitators from the communities themselves or from supporting organizations with whom they have long-standing and positive relationships.

The Toolkit consists of four parts:

**Part 1** is intended to help community facilitators understand and effectively use the Toolkit. It introduces the Toolkit and what biocultural community protocols are and how they are being used around the world. It provides guidance on using the Toolkit, including considerations of understanding the community and the role of the facilitator. It also provides an overview of a number of key methods and tools to choose and adapt as appropriate in each local context.

**Part 2** provides guidance on documenting and developing a biocultural community protocol. It references key methods and tools from Part 1 and suggests guiding questions for the appropriate documentation of aspects of the community's ways of life, consolidation of a protocol, and development of strategies to put the protocol into practice.

**Part 3** provides guidance on using a biocultural community protocol. It suggests a number of ways to engage with external actors, raise awareness with communities and the broader public, engage in key decision-making processes, negotiate with external actors, and prevent and resolve conflict.

**Part 4** provides guidance on reflecting on processes and changes to date, reporting back to the community and to external actors, and revisiting the protocol and associated strategies and plans.

The Toolkit is intended for use in conjunction with the dedicated website [www.community-protocols.org](http://www.community-protocols.org). The website contains a wide range of supplementary multimedia resources, including:

- Legal resources such as e-learning modules on key legal frameworks that relate to Indigenous peoples, local communities, and their territories and areas;
- Short films, slideshows, and photo stories;
- Key publications, including reports, articles, books, magazines, and journals;
- Networking opportunities; and
- Links to existing community protocols

*Natural Justice* ([www.naturaljustice.org](http://www.naturaljustice.org)) is an NGO working with indigenous peoples and local communities to develop rights-based approaches to securing their continued management of their biocultural heritage. Biocultural community protocols are a novel type of rights based-approach that can support communities' rights to self-determination and endogenous development and help communities to constructively engage with other stakeholders in accordance with locally defined priorities and procedures.

**Source:** Modified and updated from the original published under the title "How Bio-cultural Community Protocols can empower local communities" in *Endogenous Development Magazine 6: Bio-cultural Community Protocols Enforce Biodiversity Benefits*, July 2010. Reproduced with permission of the authors.

## The Living Convention

Indigenous peoples and local communities often ask what their rights are at the international level. The answer to this crucial question is complicated for several reasons, including the fact that the provisions containing the rights are spread across a wide range of international instruments, each with its own particular focus. As a result, Indigenous peoples and local communities are denied an easily accessible means of learning about the full spectrum of their rights relating to issues such as developments on their territories, lands and waters and the use of their natural resources and knowledge.

To address this deficiency, and to help answer the question posed above, Natural Justice produced the Living Convention, a compendium of internationally recognized rights that support the integrity and resilience of Indigenous peoples' and local communities' territories and other social-ecological systems (<http://naturaljustice.org/library/our-publications/legal-research-resources/the-living-convention>).

Using an integrated rights approach, the Living Convention provides, for the first time, a range of the most important provisions relating to the linkages between Indigenous peoples and local communities and, among other things, their territories, lands, waters, natural resources, and knowledge systems. It sets out the specific provisions in an ordered manner, grouping similar provisions under the same heading to enable the reader to quickly assess the extent of international law relating to specific issues. For example, all provisions from across the full spectrum of law that deal with Full Prior Informed Consent appear under that heading. In this way, the Living Convention aims to democratize international law by providing a straightforward resource for Indigenous peoples, local communities, and their supporting organizations to refer to when seeking to understand their international rights.

The second edition of the Living Convention (published in May 2013) is divided into three parts:

- Part I sets out the rationale and methodology of the research undertaken to develop the compendium in Part II.
- Part II contains a compendium of internationally recognized rights that support the integrity and resilience of Indigenous peoples' and local communities' territories and other social-ecological systems.
- Part III sets out a number of key questions concerning, for example, the utility of integrated rights approaches, how international law can be reformed, and how national governments can better uphold their international commitments. It then suggests initial activities that could further deepen the analyses and ways to address the current weaknesses in the development and implementation of international law.

The Living Convention also includes annexes, which (among other things) detail the instruments reviewed, included in, and excluded from the Compendium; provide a list of relevant international and regional judgments; and list a number of Indigenous peoples' declarations. The second edition of the Living Convention represents a further step in an ongoing process of ensuring that international law properly fulfills its intended purpose.

**Source:** *Modified from original article published in Langscape 2:12, Fall 2013*



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# For More Information

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*Decisions on concrete measures to safeguard the environment and cultural diversity should be grounded not only upon well-conducted research and reliable evidence but also upon values concerning the kind of world we would like our children to inherit. ... If we lose diversity, the result will be a seriously reduced quality of life, if not the loss of the very meaning of life itself. If we allow languages and cultures to die, we directly reduce the sum of our knowledge about the environment and the various and many benefits that humankind can derive from it.*

*Today there is a wider understanding that reduced diversity in its cultural and environmental dimensions poses a threat to global stability and that it makes the world and its inhabitants increasingly vulnerable. ... The Johannesburg Declaration on Sustainable Development and the Johannesburg Plan of Implementation of the World Summit on Sustainable Development emphasize that cultural and biological diversity are equally significant and important for sustainable development. ... The sustainability of both forms of diversity, which are closely inter-connected, is crucial for the very survival of humankind. Let us never forget that this interdependence is our past, our present and our future.*

---From the Foreword to *Cultural Diversity and Biodiversity for Sustainable Development*, Proceedings of a jointly convened UNESCO and UNEP high-level Roundtable held on 3 September 2002 in Johannesburg during the World Summit on Sustainable Development



