
Bridging organisations for sustainable development and conservation: a Paraguayan case

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Abstract: This paper addresses the role of emergent organisations like Fundación Moisés Bertoni (FMB) in biosphere reserve conservation. FMB is a Paraguayan NGO that manages the Mbaracayú Forest Nature Reserve (MR), the largest remnant of the Upper Paraná Atlantic Forest in Paraguay. The area is inhabited by indigenous Ache and Guaraní people. Working with Texas A&M University and aided by the World Wildlife Fund in Paraguay, FMB hosted a workshop in the MR to facilitate South-South technology transfer and capacity building. In this role, FMB fits the characteristics of an *altruistic* bridging organisation (Westley and Vredenburg, 1991).

Keywords: sustainable development; south-south collaborations; Paraguay; bridging organisations.

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Alberto Yanosky is currently Executive Director of Guyra Paraguay, the leading biodiversity organisation in Paraguay. He is the former Deputy Director of Fundación Moisés Bertoni, chairs the Regional Council of BirdLife International for the Americas and is board members of several national and international organisations. His main interests are Wildlife Management, Biodiversity Conservation and Integration with Rural Economy, plus project management and capacity building at the civil society levels.

1 Introduction

The year 2002 was host to the International Year of Ecotourism and the International Year of the Mountain, as well as World Summit on Sustainable Development (Johannesburg, South Africa). Those initiatives continued to reflect worldwide concern over biodiversity loss, depletion of non-renewable resources, and the degradation of critical agricultural and ecological areas, which were driving forces for the UN Conference on Environment and Development in June 1992 (Earth Summit, Rio de Janeiro). A global agenda (Agenda 21) for sustainable development and environmental conservation was charted at the Rio Summit. However, the 2005 World Summit acknowledged that implementation was a key weakness in Agenda 21, i.e., that the role and well being of local people had to be linked closely to environmental protection and conservation. Examples abound of the fragmentation to local and indigenous communities in emerging economies and rural areas. Hence, the Summit was mandated to address both global environmental problems as well as poverty and quality of life issues.

Greater attention is consequently being directed to understanding the relationships between ecological sustainability, and the indigenous communities that inhabit dwindling rainforests, wilderness areas and threatened ecosystems (Fennell and Weaver, 2005; Oates, 1999; Stronza, 2005). The basic principles of sustainable tourism also attempt to integrate social and cultural sustainability, along with environmental protection and economic well-being. As defined in *Agenda 21 for the Travel and Tourism Industry* (WTTC/WTO/EC):

“Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunity for the future. It is envisaged as leading to management of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems.” (WTTC/WTO/EC, 1995, p.30)

Furthermore, Principle 22 of the Rio Declaration on Environment and Development offers clear direction on the importance of involving indigenous people and their

communities in environmental management and sustainable development, and supporting their identity, culture and interests (UNEP, cited in Speth and Haas, 2006, p.71). The Brundtland Commission's report on sustainable development states that:

“Recognition of traditional rights must go hand in hand with measures to protect the local institutions that enforce responsibility in resource use ... this recognition must also give local communities a decisive voice in the decisions and resource use in their area.” (WCED, 1987, p.382)

The importance of local involvement is similarly evidenced in the Ecotourism Society's 1991 definition of ecotourism as:

“Purposeful travel to natural areas to understand the culture and natural history of the environment, taking care not to alter the integrity of the ecosystem while producing economic opportunities that make the conservation of natural resources beneficial to local people.” (The Ecotourism Society, 1991, p.75)

Definitions like the above underplay the political, social and cultural considerations necessary for sustainable development. There is both a need for new organisational structures and for greater protection of human-ecological relationships that are impacted by development project in natural areas. As Speth and Haas (2006) note, the challenge of the global environment is a challenge of effective governance, i.e., global environmental governance. It includes but is not limited to governance of the global commons, and can be accomplished, up to a point, sometimes without governments (for instance, through partnerships between NGOs, private sector and local citizens). Although nations are key players in setting international environmental policies, they respond to pressure from other nations, the United Nations and other international organisations, NGOs, scientists, as well as their own business sectors and citizens. Many groups vie for influence at both the international and the national (domestic) level (Speth and Haas, 2006). At the local level, collaborations and community involvement in sustainable resource use and ecotourism has been initiated in many areas such as the Brazilian Amazon Rainforest (see Borges and Richardson, 2006). In Mexico, for instance, one of the principles in the Mexico's National Tourism Plan 2001–2006 is that

“governments, authorities, non governmental organisations and local communities should direct their efforts towards the integrated planning of tourism.” (cited in Segrado and Farmer, 2006, p.312)

This paper addresses environmental, local and indigenous sustainability in new democracies like Paraguay that are subject to the pressure of globalisation in increasingly competitive international markets. As Paraguay progresses through the phase of emerging democracy, innovative institutional structures and collaborative processes have arisen to play a vital role in local capacity building, conservation and sustainable development. Interorganisational and cross-sectoral collaborations are crucial for the management of complex ecological-human domains (Westley, 1995). The main aims of this paper are to:

- Illustrate the role of international educational institutions as well as NGOs like World Wildlife Fund (WWF) and The Nature Conservancy (TNC), as well as local, emergent environmental NGOs like Guyra Paraguay and associations like the Paraguay-based Fundación Moisés Bertoni (FMB) in facilitating participatory democracy, sustainable development and the conservation of critical habitats and ecosystems.

- Summarise the activities and outcomes of the capacity building workshop enacted by the above organisations in the Mbaracayú Forest Nature Reserve (MR), Paraguay. Local participants included the indigenous Ache people who occupy the nature reserve and the local Guarani residents who live in the biosphere area and region around the reserve. This workshop was based on the Zimbabwean CAMPFIRE model and used as an example of South-South intercontinental transfer of knowledge and technology.
- Present the theoretical concept of ‘bridging organisations’ for local-global collaboration, and raise the issue of cultural sustainability and its importance to the future development of ecotourism in Mbaracayú Reserve and elsewhere. Current institutional practices related to ecotourism and sustainable tourism have focused on ecological and socio-economic benefits, but have paid poor attention to human-ecological cultural relationships that are often intangible and hard to measure and operationalise.

The section below describes the applied process and context in which the above initiative arose. This is followed by a description of the methodology and then the CAMPFIRE-based workshop enacted in this Paraguayan setting. The final section discusses the role of FMB as a *strategic bridging organisation* (Westley and Vredenburg, 1991) that facilitates sustainable development at the local level in Paraguay. The importance of collaborative bridges and linkages such as those described below is addressed, as well as the importance of paying better attention to cultural sustainability and in sustainable development initiatives.

2 Building local capacity: NGOs and South-South technology transfer

“A central objective of environmental protection movements must be to define and promote a holistic ecological ethic so as to enlarge the population which values environmental protection and the satisfaction of basic human needs sufficiently to generate an environmentally and socially sustainable society. Participatory decision-making processes are a requisite, institutional step in that direction.” (Barrett and Grizzle 1999, p.30)

Worldwide, ethnic languages and ecosystems are disappearing at a bewildering rate. The Amazonian deforestation over the last 30 years illustrates a common cycle of destruction in countries like Brazil, where first cuts into the forest for valuable woods (like mahogany) create an entry point for other loggers of less valuable wood (like cedar). Squatters and subsistence farmers move out (forcibly or by selling their tract), loggers consolidate larger tracts and sell to land speculators who consolidate further and sell to ranchers (London and Kelly, 2007). In addition to local conflict between small plot holders and those attempting to gain control of their land (including dispute over land titles), tensions over conservation in this and other areas in the Amazon have also involved NGOs like Greenpeace and Conservation International (Dowie, 2005). While the Greenpeace Report (2001) helped the Brazilian government along with the international community to impose a ban on mahogany harvest and export, enforcement continues to be problematic due to under-funded public resources, charges of corruption and incompetence. (London and Kelly, 2007). Giving over enforcement to international

NGOs like Greenpeace could be perceived as a breach of sovereignty, while involving local NGOs can raise different challenges as well as opportunities.

Segrado and Farmer's (2006) research of NGO-community collaborations for addressing tourism and environmental issues in central Mexico showed that, while the local NGOs are valued by the community and local government, tensions exist between the NGOs and various local stakeholders who perceive the conservation priorities of the NGOs to hinder local well-being. The effectiveness of the local NGOs to create constructive change and environmental protection is further impeded by other factors such as lack of funding and technical training (Segrado and Farmer, 2006). In Paraguay, NGO relationships are differently perceived. They tend to be more trusted and relied upon by the public sector to implement change due to the lack of governmental resources and capacity (hence the 'paper parks' that stagnate without attention). Paraguay NGOs are consequently perceived as being influential and powerful, and are actively involved in addressing biodiversity conservation challenges in Paraguay.

In 1989, only 2.79% of Paraguay had protected wildlife areas. Aided by international organisations like the World Wildlife Fund and The Nature Conservancy, Paraguay, Brazil and Argentina are battling to control increasing fragmentation and habitat loss in the threatened Upper Paraná Atlantic Forest, an ecosystem shared by the three countries (see Huang et al., 2007). Paraguay's political landscape, like other newly emerging democracies, is young and uncertain. Hindered by bureaucratic structures and internal political jockeying for control, funding supplied to public sector agencies by international NGOs is often ineffective in reaching target communities and areas to be protected. New forms of organisation that facilitate democratic participation in economic development and biodiversity conservation are emerging worldwide (e.g., co-management of protected areas (Fennell, 2006), and community-based natural resource management in Botswana (Mbaiwa, 2004)). New organisations are emerging in Paraguay as well.

One such organisation is the Fundación Moisés Bertoni (FMB), a Paraguayan NGO founded in 1988 with the mission "to work for sustainable, socio-economic development through the conservation of nature and the organised action of the people of Paraguay". FMB has both private and non-profit aspects, plus strong intellectual and financial talent – these are crucial strategic innovations in this political context. A key objective of the FMB, as stated in its mission, is to facilitate participation of Paraguayan citizens in sustainable development and conservation. Recognising that cultural sustainability and Paraguayan identity politics are crucial to biodiversity protection, it has engaged in implementing sustainability-based economic initiatives that foster participatory democracy and development of ethnic identities and sense of belonging.

In 1991, The Nature Conservancy helped FMB to purchase 57,715 hectares of the Upper Paraná Atlantic Forest, located on the northeastern edge of Paraguay. Since then, the Reserve has expanded to 64,405.7 hectares and achieved the designation of a biosphere reserve under UNESCO's Man and Biosphere Program. To help conserve these remaining tracts of the Upper Paraná Atlantic Forest (UPAF), FMB has developed innovative structures and relationships to facilitate ecological and economic sustainability in this area. Fundación Mbaracayú owns the land and by agreement, FMB manages the land dedicated to conservation in perpetuity for its natural values and to provide food, shelter and elements for the Aché indigenous group to continue their traditions and culture. An outreach program was established which concentrates on sustainable development of the area, including services like health education, environmental

education and technical assistance. FMB is currently working with over 40 committees, including indigenous Ache and Guarani communities, for small-scale production, community-based agro forestry and enterprise development (manioc plant, etc.) in the area. A small tropical research centre has been established in the reserve, and limited nature-based tourism is being undertaken, primarily based on regional visitors.

Since most land is privately owned, the NGOs (both local and international) have had to develop creative strategies for facilitating environmental protection in these areas. Guyra Paraguay, the biodiversity-leading organisation, has also created innovative mechanisms for nature preservation. Another element that has been used for a long time by organisations like the World Wildlife Fund and Conservation International is to focus on capacity building at the grass-roots level. The initiative described below is one such action that the FMB facilitated, in partnership with the World Wildlife Fund and a North American educational institution (Texas A&M University, Texas, USA).

3 Research methodology

This study is a participative inquiry of two types. The first is Participatory Action Research (PAR), which involved two phases: An exploratory field trip to Paraguay by a five-member team of scientists from Texas A&M University in 2000 engaged in collaborative inquiry with key stakeholders (government sectors, local and international NGOs operating in the country, and local communities in the study area). This trip also involved visits to several areas of tourism and biodiversity conservation interest, including the Mbaracayú Forest Nature Reserve (MR) and Jejui Watershed, as well as to communities within and adjacent to this biosphere reserve. The sustainable development and conservation of this area was the main focus of the collaborative inquiry for our research team and FMB, the local non-profit institution that had invited the five-member team of scientists.

Based on the knowledge gained and relationships developed through various stakeholder meetings, a new initiative emerged which resulted in a workshop on community-based natural resource management, delivered by two of the five-member team working with one Paraguay partner and the local Paraguay representative of the World Wildlife Fund (WWF). This workshop phase was funded by WWF, and was based on the principle of South-South technology transfer, taking knowledge and learning of community-based conservation from a similar developing country setting in the southern hemisphere to the other. The North-South collaboration (Texas university – Paraguay NGO) acted as facilitators of this South-South technology transfer. Subsequent to the workshop (which was held in 2001), several outcomes were observed over the subsequent few years in the Jejui Watershed region that are described below in the case study. This initiated a second research phase, action inquiry that led us to examine the overall study and develop a critique to assist future inquiry and action in this ecologically threatened region. This is described in the final section of the paper.

Participatory Action Research (PAR) emphasises the political aspects of knowledge production, and its traditional concerns for powerlessness and power make it a popular tool for enabling action and change. As Reason (1998) describes, it has two clear objectives:

- To produce knowledge and action directly relevant to a group of people, through research, education and socio-political action.
- To empower people through the process of constructing and using their own knowledge.

This involves a consciousness-raising process that Paulo Freire (1970) popularised by the concept *conscientisation*. For Fals-Borda and Rahman (1991, p.vi), this aspect, the “enlightenment and awakening of the common people” is the primary task of PAR. Discussion, information gathering and knowledge sharing during our first trip, followed by a participatory workshop involving a wide cross-section of local inhabitants in the MR and Jejuí Watershed, public and private sector representatives, NGOs and scientists, further enabled consciousness raising and directions for change and local empowerment. As such, traditional headings such as research method, data gathering, and data analysis are secondary to the process of collaboration, dialogue, emergent action, change and empowerment at the local level.

Action Inquiry (AI) requires the research to engage in self-reflection of one’s own actions and actions with others, in such a way as to raise awareness of one’s own perceptions, behaviours and use of theories, and developing new skills in the process (Torbert, 1989, 1991). While we (the authors of this article, who were also participants in the case study) did not engage in action inquiry to the level outlined by Torbert, our observations of our roles in this study and the resulting outcomes involved self-reflection, change actions and new insights. Not only did we engage in much more engaged university-community collaborations in our own state, we also engaged in a deeper self-reflection of community-based conservation and ecotourism. This is discussed briefly in the final section so that it might enable reflective action in PAR and AI research on sustainable development in natural areas. In keeping with PAR and AI, our participatory inquiry was not shaped by theoretical frameworks, but our later self-reflection raised both theoretical reflections on inter-organisational collaborations and a concern about participatory processes for sustainable development and biodiversity conservation (summarised in the last section). Reason (1998) argues that AI and PAR stand in marked contrast to orthodox research, but they complement each other well.

4 Local capacity building in the MR

This section summarises the activities and outcomes of the participatory research. Information exchange and learning through dialogue took place at meetings with local and federal governments (including the Minister of Tourism), several NGOs and USAID officials, local private enterprises and community officials, local residents and scientists. Visits to local communities and the indigenous people (Ache) inhabiting the Mbaracayú Reserve and the Jejuí Watershed provided valuable insights during this 12-day research trip to Paraguay (May 13–25, 2000). Paraguay’s Cuenca Alta Del Rio Jejuí is a watershed region that includes the protected *Reserva Natural del Bosque Mbaracayú* (referred to here as Mbaracayú Reserve, abbreviated as MB). The entire watershed region was designated a UNESCO Man and Biosphere World Heritage Site in 2000. An attempted political coup took place in the capital city (Asunción) during this research period, indicative of the political scenario of this emerging democracy.

Working relationships were commenced with Dr. Yanosky, then Deputy Director of *Fundación Moisés Bertoni* and Director of Mbaracayú Reserve (a division of FMB that took over the management of the reserve on behalf of *Fundación Mbaracayú*), and other local organisations (such as the local representatives of the World Wildlife Fund (WWF)). These discussions and relationship building identified the potential for South-South capacity building, specifically, the possibility of transferring knowledge about the Zimbabwe's CAMPFIRE program to the local communities and other stakeholders of the MR and Jejui Watershed. The basic principles of community-based development from this program were presented to the local communities and indigenous people living in the Jejui Watershed and the Mbaracayú biosphere reserve. In addition to the concept of communal management of natural resources, nationals of Paraguay were very interested in learning about management, responsibility and commitment to sustainable resource use and conservation. This is an important aspect for local communities living inside or in the vicinity of natural or protected areas. The CAMPFIRE model would serve as a pedagogic process for knowledge sharing and action learning through dialogue between local residents, Zimbabwean specialists and other local and international stakeholders (see Appendix 1).

A community-based workshop based on CAMPFIRE was conducted in 2001 by one of the research team members, assisted by another of the research team members and our Paraguay partners. This team member had had direct experience with the CAMPFIRE initiative. CAMPFIRE commenced as a Zimbabwean program for sustainable development and community-based wildlife management; it was partially funded by the US Agency for International Development (USAID). Conceptually, CAMPFIRE includes all natural resources, but its focus has been wildlife management in communal areas, particularly those adjacent to national parks, where people and animals compete for scarce resources (Peterson, 1991). The Texas-based University involved in this study acted as a facilitator of South-South technology transfer between Zimbabwean participants and Paraguayans in the 2001 workshop (see Appendix 1).

Activities since the first 2001 workshop

The research collaboration and resulting 2001 workshop resulted in a number of new initiatives and outcomes. This initial workshop resulted in the development of a new project financed by Avina Foundation to strengthen local skills for decentralised management of natural resources and provide follow-up training. Responsibility for this was given to our Paraguay partner, Dr. Alberto Yanosky, who moved on later to become the Executive Director of Guyra Paraguay, another Paraguay NGO oriented towards biodiversity conservation. Its creation is linked to FMB, and one of its key sites is Mbaracayú Reserve. Guyra Paraguay declared this area of Mbaracayú as the second Important Bird Area (IBA) of Paraguay and by definition a Key Biodiversity Area (KBA) under the framework of BirdLife International's IBA Program. The project has developed and consolidated leadership strategies in order to strengthen the decision-making capacity of the local actors.

The success of this initial workshop also guided the preparation of a second workshop for Itaipu Binacional, the entity that administers the largest hydroelectric dam in the world. The workshop that took place on the 3–5th of November, 2003, was very informative, and the collective dialogue and information generated demonstrated the seriousness of the participants. It was concluded that it is necessary to define a collective vision for the watershed and for Paraguay. Itaipu, the Moises Bertoni Foundation,

Guyra Paraguay and the Natural Land Trust (later created by FMB and Guyra Paraguay, together with two other leading NGOs in Paraguay), could assume a leadership role. Once the vision is clearly defined, the specific objectives can be more easily established. Among these would be an exploration of ecotourism potential in the Reserve. A national program of this magnitude will be a long, slow process, so several small-scale initiatives should be implemented to continue the momentum of the 2001 workshop (Kreuter et al., 2003).

Another very important outcome resulting from the 2001 workshop in the reserve was a new project “Capacity Enhancement for Community and Ecologically-Based Management in the Bosque Mbaracayú Biosphere Reserve”. This initiative commenced in April, 2004, by the FMB and the Alberta Research Council, with contribution of the Canadian International Development Agency (CIDA). A management committee was established and has been working on developing and establishing a land management plan and process for the MR.¹ The formation of this committee represents a valuable step in managing the multi-disciplinary, multi-stakeholder and inter-institutional challenges, and developing sustainable land-use and development strategies for the reserve that address all areas of employment, equity and especially the relationship between ecology and indigenous groups. Support from European Union sources is anticipated to follow in 2007 and 2008 to work more with local municipalities to strengthen their capacity for sustainable management and to develop their own Environmental Direction strategies for controlling and regulating land-use in this area.²

Based on experience at the 2001 workshop, Dr. Yanoksy has subsequently also undertaken advising the Ministry of Environment and Itaipu on a new project call *Paraguay Biodiversidad* which will focus on biodiversity conservation within the Upper Paraná Atlantic Forest, and will work with a World Bank loan to promote sustainable resource use and rural productivity in the area.³

5 Global-local collaborations and sustainability considerations

In newly emerging democracies like Paraguay, careful attention has to be paid to both the social and political context of biodiversity conservation, including the role and interests of various global and local stakeholders (Brechin et al., 2002). Struggles to preserve diminishing tracts of endangered habitats are intricately linked to rural poverty as well as the threats posed by illegal logging and the related impacts of changing land-use and exploitation. Voluntary ‘bottom-up’ initiatives in civil society are imperative in addition to governmental and intergovernmental action in global environmental governance. But the intervention of international and local NGOs in addressing these issues is not always effective, as noted earlier, and how to insure quality of life and community health and well-being along with biodiversity conservation remains a challenge. Critiques of institutionalised, normalised and mainstreamed environmentalism, and concerns about a resurgent protectionism in international biodiversity conservation add further challenges to developing effective voluntary action (Wilshusen et al., 2002). These same concerns can be extended to initiatives attempting to develop non-consumptive uses in natural areas, like ecotourism, where mainstream industry and NGO interventions may still be oriented towards self-interest (profit and conservation, respectively) ahead of local well-being and cultural sustainability (Jamal et al., 2006). The participatory research and subsequent self-reflection (action inquiry) led us to a number of theoretical and practical

insights for local-global collaboration, community-based conservation and ecotourism which are summarised below.

- The above-described North-South collaboration between international educational and conservation organisations with local Paraguayans indicates that building global-local collaborative bridges with innovative grass-roots NGOs can be a useful mechanism for effective local action and change. The North-South collaboration facilitated further South-South collaboration (through the pedagogic opportunity of the CAMPFIRE based workshop dialogue in 2001), plus a number of other conservation initiatives. Hence, such inter-organisational collaborations between non-profit local and global institutions can funnel resources (technological and financial) to conservation and development initiatives without getting stalled or delayed by bureaucratic and political preoccupations of fledging democracies. Organisations like FMB, Guyra Paraguay and IDEA (a NGO in Paraguay devoted to legal and economic aspects, also created with the support of FMB shortly before Guyra Paraguay's creation), are important for community capacity-building, environmental conservation and civic involvement – a key principle for local Paraguayan organisations is facilitating participatory democracy and local involvement in sustainable development and conservation.
- In this sense, organisational forms like the FMB work well as strategic bridges for facilitating sustainability initiatives in new democracies like Paraguay where the political, ecological, social and economic structures are being developed or reconstructed. Strategic bridging is particularly effective in these types of complex problem domains where the degree of domain organisation is low, i.e., where the sustainability domain is under-organised (Brown, 1991). On-the-ground NGOs like the FMB act as 'bridging organisations' (Westley and Vredenburg, 1991) in two senses:
 - a They are integrally involved in working with local and indigenous people to facilitate sustainable development and conservation initiatives. In this sense, they facilitate the development of a participatory democracy through on the ground planning and capacity-building activities.
 - b They act as local conduits for international funding and technology transfer, so that these resources are directed towards preserving threatened ecosystems and local capacity-building activities. This enables international aid organisations and educational institutions to by-pass possible instabilities or political inaction at the federal and regional governmental level.
- According to Brown, bridging organisations span the social gaps among organisations and constituencies to enable coordinated action. Westley and Vredenburg (1991) draw upon Brown (1991) to propose two ideal-type configurations of strategic bridges: altruistic bridges and egoistic bridges. Egoistic bridges tend to be voluntary, self-serving and maintenance oriented, while altruistic bridges are designed or mandated, problem focused, and transformative. Based on the above, the FMB in Paraguay can be characterised as an altruistic bridging organisation (Westley and Vredenburg, 1991) that facilitates sustainable development and conservation initiatives, mediating political fluctuations, international aid, education and research/technology transfer. This role is in contrast

to the egoistic bridge role often played by private sector organisations whose shareholder obligations require a profit motivated corporate philosophy (Westley and Vredenburg, 1991; Sharma and Vredenburg, 1994). The FMB therefore acts as an altruistic strategic bridge between local ecology and the wider economic and market forces that impact Paraguay.

- By facilitating local participation and indigenous involvement through capacity-building initiatives like the one described above, the FMB is attempting to create a home-grown Paraguayan form of participatory democracy that is integral to sustainable development of this country's natural and cultural resources. Such a locally emergent form of democratic action is particularly important for mitigating adverse impacts and criticism related to eco-imperialism and neo-colonialism or post colonialism, and for facilitating cultural sustainability through the inclusion of ethnic and indigenous participants in sustainable development (Hall and Tucker, 2004). Our participatory inquiry supports previous work on inter-organisational and NGO collaborations, which also argue for local involvement in development and decision-making (Jamal and Getz, 1995; Jamal, 1999).
- The various initiatives that have taken place in the study area since our first research trip there identifies a rich landscape of inter-organisational collaborations and local-global stakeholders engaged in addressing sustainable development and conservation initiatives in Paraguay. Some, like FMB and Texas A&M University, can play the role of strategic bridges to inform planning and policymaking, and facilitate technology transfer. Others, like the environmental NGOs, focus on specific topic and issue areas such as biodiversity conservation and habit loss, (eco) tourism development, among others. The following list shows some of the key global and local entities that are existing (or potential) stakeholders in the MR and Jejuí Watershed area:
 - International NGOs (World Wildlife Fund, Conservation International)
 - Local NGOs and Foundations (FMB, Guyra Paraguay, Avina)
 - International Sustainable Development and Conservation Organisations (UNESCO)
 - International Aid Organisations (World Bank)
 - International, national and local tourism entities (World Tourism Organisation; Minister of Tourism in Paraguay who we met)
 - National Aid and Development Agencies – Foreign (CIDA – Canada; USAID – USA)
 - Governments (National, e.g., Ministry of Environment, plus local municipalities)
 - Domestic and Foreign Educational Institutions and scientists (Paraguay scientists; Texas A&M University, and other environmental and social scientists, e.g., Dr. K. Hill – Anthropologist based at the University of New Mexico)

- Foreign and Domestic Industry sector (Itaipu in Paraguay; Paraguayan businesses and (potential) ecotourism interests)
- Local Communities (Ache and Guarani).

Ecotourism and local well-being

Ecotourism is currently being explored by tourism industry interests in the region as well, and the capacity building and conservation programs taking place in the MR and Jejui Watershed, along with the various collaborations, should provide a good base for exploring and developing the tourism potential of the area. Studies of regional tourism planning in developing countries by Tosun and Timothy (2001) show that there is a need for political stability, establishing supportive institutions and decentralisation to develop and implement an appropriate tourism planning approach, as well as collaboration and cooperation of western governments and international agencies. But Font and Harris's (2004) study of certification programs and tourist organisations showed that they must strive for a more comprehensive approach for addressing local well-being, including a corporate social responsibility that is meaningful to tourist consumers and to host societies as well. Cultural sustainability has yet to be well addressed in the sustainable tourism paradigm, Robinson (1999) noted. It is an important consideration for NGOs, public sector and private sector interests as well as for local inhabitants seeking non-consumptive resource use or diversification from traditional activities on their land.

Small-scale activities and enterprise development related to ecotourism offers an important means of local and indigenous participation as well as decision-making related to biophysical and cultural resources. Swain's (1989) study of the Kuna Yala of Panama shows that the success of indigenous tourism requires a holistic integration of ecology and culture, which for the Kuna people related closely to control over their land and over the production and sale of their ethnic art (molos). Ecotourism's community-based focus also offers an important avenue for rebuilding and renewing the individual, ethnic and collective identities of the Paraguayan people. Ecological narratives of the land and its people can be developed and shared with visitors through interpretive activities (including storytelling) conducted by the local people. Such active involvement also contributes towards participatory democracy by enabling new cultural identities are formed and confidence restored to a population that has been overwritten by over 500 years of colonisation and dictatorship.

It is integral here that the good-will of western/northern scientists, consultants and researchers engaged in North-South and South-South technology transfer do not impose a form of scientific hegemony, 'ecological imperialism' or cultural imperialism through an imposition of external planning models and processes on local Paraguayans (Darier, 1999; Hall, 1994). Community-based conservation and ecotourism programs continue to suffer from lack of attention to the cultural costs and benefits of nature-based conservation and development initiatives. But to effectively adhere to sustainability principles, conservation and policy making will have to engage more closely with the cultural world of those who dwell within and sustain themselves through the natural resources. In other words, planning and policy activities must address the impacts of ecotourism and other community-based enterprise development on cultural traditions, practices and relationships (George and Reid, 2005). Addressing 'cultural sustainability' means attending not only to issues of cultural survival, cultural heritage and cultural artefacts, customs, traditions, but attending also to the *human-ecological relationships*

of the Ache and the Guarani people with the Mbaracayú Reserve. As political economists and critical geographers point out, the logic of the market and the construction of institutions in ways that are consistent with the growing prevalence of the material practices of market exchange occurs while masking social relations, “subsuming the cosmic questions of the relation to nature into a technical discourse concerning the proper allocation of scarce resources (including those in nature) for the benefits of human welfare” (Harvey, 1996, p.130). It is these intangible cultural relationships that conservation and ecotourism planning and policy makers must also be attentive to in places like the Mbaracayú Reserve and community-based natural resource management programs.

The FMB’s activities opened up several positive directions for the sustainable development of agriculture, ecotourism and related-tourism activities in the Mbaracayú Reserve. It has played an active role in facilitating the development of participatory democracy through grass-roots capacity building and South-South technology transfer, facilitated by North-South collaboration (with the Texas A&M University link). The current initiatives that have resulted from this should help establish foundations for land-use planning and sustainable development in the Reserve. However, as we examine the globalised landscape of the 21st century, the social responsibilities of local and global environmental NGOs will be increasingly challenged by concerns related to climate change, ecological modernisation and neoliberalism (Jamal et al., 2003). Participatory involvement and *conscientisation* (Freire, 1970) at the local level will be crucial for building a new post-identity in the young emerging democracy of Paraguay.

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Notes

¹For map of the area and further information see: <http://www.mbertoni.org.py/alberta/00ingles/indexin.htm>. Accessed 28/2/07.

²Personal email communication 2/8/07 with René Palacios of FMB.

³See <http://www.gefonline.org/projectDetails.cfm?projID=2690>. Accessed 2/28/07.

Appendix 1: The CAMPFIRE based workshop, 2001

The purpose of the five-day workshop was to facilitate information transfer between Zimbabwe and Paraguay about cooperative programs between rural communities and private land conservancies in order to facilitate the sustainable use of indigenous resources in the UPAF and other ecoregions in Paraguay. Zimbabwe has had more than 25 years of experience in developing and implementing community-based natural resource management programs, private land conservancies, and collaborations between these two types of conservation initiatives. The return of benefits to local communities from wildlife resources is the basis of Zimbabwe's Communal Areas Management Programme for Indigenous Resources (CAMPFIRE).

CAMPFIRE has been successful in a number of settings related to indigenous people and natural resource sustainability. For instance, the Chikwarakwara community of approximately 150 households in the remote Beirbridge area of Zimbabwe has taken over management of wildlife resources from their district council. The benefits that have accrued to the community as a result of this include a new school, a new grinding mill, and a Z\$200 cash payment to each household. The council benefited through a 11.7% levy, and the central government benefited through an increase in taxable revenues (Narayan, 1996). A number of initiatives related to tourism and ecotourism development have also been undertaken under the CAMPFIRE program. However, the CAMPFIRE approach has not worked when communities have not been involved in rule formulation or when sharing of benefits with communities is minimal. Recognising this essential principle, a Paraguayan workshop with the indigenous and local community groups was proposed, where capacity building would start by setting up South-South relations related to CAMPFIRE. The specific aims of the workshop were to:

- assist and perhaps accelerate the implementation of cooperative conservation initiatives being considered in the IAF of Paraguay
- assist interactions between Paraguayan and Zimbabwean leaders from the NGOs sector to promote community-based management tools
- promote South-South discussions in countries with similar environmental, social and political conditions.

The workshop facilitated information transfer between Zimbabwe and Paraguay about cooperative programs between rural communities and private land conservancies. It allowed discussion of sustainable use practices for native resources in the UPAF among 44 local and foreign interests in the Mbaracayú Biosphere Reserve. The workshop helped to accelerate the implementation of cooperative conservation initiatives being considered in the UPAF of Paraguay, facilitated the interactions between Paraguayan and Zimbabwean leaders in the NGO sector to promote community-based management tools,

and the promotion of south-south discussions in countries with similar environmental social and political conditions. Of the total cost of \$31,210, WWF provided \$12,500 (40%).

The workshop was held from 6–10th August, 2001 in the Mbaracayú Forest Reserve, the largest remnant of the UPAF in Paraguay located in Eastern Paraguay). A total of 44 people participated in the workshop. Some participants were unable to participate in all five days of the workshop. The participants included:

- 14 local community leaders, including 4 Campesinos, 7 Guarani Indians, and 3 Ache Indians
- 10 Paraguayan NGO representatives, including 4 representatives from Fundación Moisés Bertoni, 5 from other national NGOs, and 1 from the San Rafael conservation area
- 3 landowners from the within the Jejui watershed
- 6 landowners from outside the Jejui watershed including the Interior Atlantic Forest, the Chaco, Itaipu Bi-National Entity, and San Rafael conservation area, and 1 businessman from Asunción
- 5 foreign organisation representatives including, 1 USAID representative, 3 USA Peace Corps volunteers, and 1 USA conservation attorney
- 2 representatives from the US based educational institution one was a Fish and Wildlife specialist with past research experience in Paraguay, the other a Rangeland Ecologist who had worked with the CAMPFIRE model in Africa)
- 3 community-based/private land conservancy specialists from Zimbabwe
- 1 Paraguayan workshop facilitator.

In addition, several senior representatives visited the workshop venue for one day, including:

- Edmundo Rolon Osnaghi, Minister, Secretary of the Environment, Paraguay
- Diane Espinoza and Margareta Gustafson, members of the Board of Directors of Fundación Moisés Bertoni, and Nancy Cardozo, Executive Director of Fundación Moisés Bertoni
- Jose Martinez, Mayor from Villa Ygatimi
- Leticia Marinoni, Journalist from Noticias whose report appeared in the 12th August issue of Noticias.

The three specialists from Zimbabwe included:

- Rowan Martin, former Deputy Director of the Zimbabwe Department of National Parks and Wildlife Management, a key player in the formation of CAMPFIRE, and now a consultant
- Clive Stockhil, Chairman of the 324,000 ha Save Conservancy in southeast Zimbabwe, and Chairman of the Zimbabwe Tour and Safari Operators Association
- Mike Murphee, International consultant for community-based natural resource management.

Each Zimbabwean specialist was partnered with at least one Paraguayan to assist with assimilation and translation of the information they presented. In addition, the Paraguayan counterparts were responsible for facilitating group discussions during the workshop. To ensure the smooth running of the workshop, two workshop tri-lingual English, (Guarani and Spanish) moderators/facilitators were included. Ache and Portuguese were also used in the workshop. The main results of the workshop included the following:

- It initiated south-south interactions between Paraguay and Zimbabwe to discuss issues of mutual concern regarding the sustainable use of natural resources.
- It was the first forum for a wide range of communities especially campesinos, Guarani, and Ache from within the UPAF's Jejui watershed) to discuss their concern regarding land and natural resource use. The community participants commented that this was a very valuable aspect of the workshop.
- It catalysed the commitment to develop representative committees in the next three months in order to empower communities to improve land use decisions in the IAF's Jejui watershed.
- It resulted in a proposal to establish a committee with representatives from each community and FMB to identify and select an individual who will orchestrate regular future group meetings and assist with the development or reorganisation of representative community committees. Fundación Moisés Bertoni has agreed to facilitate such meetings by providing transport upon request.
- A request was made for a reciprocal visit to Zimbabwe by 6–7 key Paraguayan representatives within the next 12 months.
- Requests were made for similar workshops to be held in the Chaco and San Rafael National Park.