

sustainability is questionable.”⁷

Tourism’s contribution to the gross domestic products of developing countries has been climbing dramatically in the past decade, despite recent downturns in the marketplace. The stakes are high for successful new donor interventions in sustainable tourism and ecotourism. A study by the Worldwatch Institute in Washington, D.C. found, that

“Tourism is the only economic sector where developing countries consistently run a trade surplus, it’s especially significant in poorer countries that have few other options: for the world’s 49 so-called least developed countries, tourism is the second largest source of foreign exchange after oil.”⁸

To advance dialogue on improving ecotourism project results, a project analysis and evaluation framework is needed that defines indicators for conservation, community and local enterprise development that can be inter-sectorally accessed on-line and reviewed by university researchers, independent evaluation teams hired by donors, NGOs, communities, and the private sector.

A paper on this subject was presented as the keynote address at the Conference on *Ecotourism and Conservation in the Americas* at Stanford University in 2002, and has since been through blind and editorial review with the editors at Stanford University. It awaits publication as a chapter in a book. EplerWood Report will now excerpt this timely document. The first of two parts, this report will explore why a triple bottom line evaluation approach is of great importance. And it will explore monitoring parameters for *Ecotourism as a Conservation Strateg*. The next report in September 2004 will explore the other two parts of the proposed framework, *Ecotourism as a Community Development Strategy* and *Ecotourism as an Enterprise Development Strategy*. And we will look at the consequences of managing sustainable tourism projects without uniform indicators in a Special Field Report by Oliver Hillel, member of the EplerWood Report editorial board, who will investigate the issue from the point of view of donor project managers.

This series proposes a draft triple-bottom line evaluation framework in order to give as much impetus as possible to a process of further input and review among experts. It is not intended to be a final product. Nonetheless, the author suggests that a consistent triple bottom line project analysis and evaluation framework for donors funding sustainable tourism is urgently needed and is crucial to the success of donors to support ecotourism.



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Advancing Donor Cooperation

In 1999 donor representatives from IADB, the World Bank, and German, French, and Norwegian bilateral aid representatives met at the Inter-American Development Bank to discuss with ecotourism project leaders how to set standards for ecotourism projects. The results of this *Ecotourism Development Policy Forum* held at IADB in Washington, D.C. in 1999, co-sponsored by TIES, Conservation International, World Resources Institute, and the Environmental Enterprises Assistance Fund were summarized, circulated and published with the following points, "1) there are critical gaps in existing knowledge and information regarding ecotourism, 2) ecotourism projects in the donor community lack coordination and have high overlap, 3) donor packages intended to conserve biological diversity often have failed to properly account for tourism market realities" (Epler Wood 2002).

In 2001 with a Sustainable Tourism Development Roundtable was organized by Conservation International and The George Washington University which identified the concerns of the donors when implementing tourism as part of development frameworks, their rationales, and issues and actions of concern in such fields as biodiversity conservation, poverty reduction, economic growth, sustainable development, and profitability within the private sector.⁹ Three meetings have been held among European Development Assistance Agencies in 2003 & 2004, further advancing the question of donor cooperation.¹⁰ These initiatives continue, and a meeting of a Sustainable Tourism Forum has now been proposed for October 2004 for both European and North American donors, in Washington, D.C. to be held at The George Washington University.

A Triple Bottom Line Approach to Ecotourism Project Analysis and Evaluation

The discussion of how well ecotourism contributes to sustainability has frequently been reduced to one biodiversity conservation bottom line for the purposes of evaluation and monitoring of project success.^{11 12} However, sustainable development literature has argued in the last eight years that the triple bottom line of conservation, economic, and cultural/social benefits need to be considered equally.¹³

When working in the field, it is difficult to separate the goals of biodiversity conservation, community and economic development. A primary thesis of this series of papers is that each part of the triple bottom line is essential to achieve sustainable development results. If a project is designed for long-term success it is clearly dependent on good design in all three disciplines, and each will be mutually reinforcing.



A perfect model would not separate each bottom line but explore their deep interdependence. However, given that this type of framework has never been created before, this series of papers will separate each of the bottom lines, and explore the indicators for each. In future, the inter-relationships between each bottom line could be studied and synergies and cross disciplinary influences could certainly be reviewed. But first the triple bottom line system of analysis and evaluation needs to be tested in the field, an exercise the author is presently undertaking with an ecotourism development project in Sri Lanka supported in part by US AID, and is advocating for other donor projects to begin as soon as possible. Examples from this project will be provided to illustrate how the author is testing out the framework principles being discussed here.

Evaluation Framework for Ecotourism as a Conservation Strategy

1. To what extent has ecotourism contributed to the cost of protecting and managing natural areas/ or the specific natural area under review?

There is no international database regarding the use of visitor fees to parks, but anecdotal evidence indicates they have been introduced and/or increased at many developed and developing country natural areas in the 1990s. ¹⁴ TIES assisted Colorado State University with a study ¹⁵ published in 1994 that surveyed 319 protected areas in the world and found that over 50% of revenues for protected areas in developing countries was from visitor entrance fees. To study actual conservation impact, however, the exact portion of the fees that are used directly in the protected area must be included. The 1994 Giongo study showed that 32% of these fees were returned to the protected areas, the remainder going to central treasuries.

It is well documented that funding of protected areas is not adequate around the world. The International Union for the Conservation of Nature (IUCN) estimated that 80% of protected area budgets are not being covered by any source, and that an estimated "\$20-30 billion annually over the next 30 years is required to establish and maintain a comprehensive protected area system including terrestrial, wetland, and marine ecosystems."¹⁶

One of the problems identified at the 2003 World Parks and Protected Area Congress sessions on the *Financial Security for Protected Areas* was that "revenues from tourist income are not being



earmarked for protected area management.”¹⁷ It has been estimated that the 60,000 nationally-designated protected areas each require an average of USD 500,000 per year for their maintenance – making the total cost of maintaining the global network of protected areas around USD 27.5 billion per year. However, very few protected areas generate sufficient income to cover their maintenance costs at present.¹⁸ Ecotourism cannot constitute the sole source of support for protected areas, because tourism is a fluctuating economy dependent on many external issues impossible for government to control, such as health, natural disasters, and security. But this does not imply that tourism should not be an important source of revenues for protected areas that offsets national treasury costs.

Advance project analysis and evaluation questions should include, how much total revenue ecotourism is providing to protected areas, what percentage is being earmarked for conservation in specific protected areas, and what proportion of total protected area budgets are being covered by ecotourism.

2. What are the biophysical impacts of tourism in natural areas?

The significance of biophysical visitor impacts on natural areas worldwide has never been quantified biologically. Tracking impacts is dependent on having or obtaining baseline data, which is frequently unavailable. Giongo and co-authors¹⁹ found that monitoring of impacts was taking place in just over 50% of parks in developed countries and in fewer than 35% in developing countries. The publication “*Sustainable Tourism in Protected Areas: Guidelines for Planning and Management*” jointly published by UNEP, The World Conservation Unit (IUCN) and the World Tourism Organization (WTO) in 2002 states,

“Monitoring is an essential component of any planning or management process, for without monitoring managers know nothing about progress towards the objectives that have been set for visitor management”²⁰

Indicators to be tracked include: trail depth, water quality, site spreading, vegetation and wildlife impacts. A study, using interviews with U.S. park superintendents in 51 parks, found 30% of the parks had significant impacts on vegetation, 37% on wildlife, 22% on water quality, 15% on air quality.²¹ Similarly, the Giongo study showed that managers had concerns about erosion, site-spreading, trail depth, water quality and vegetation impacts. But neither study reported on the



percentage of total park area impacted, an absolutely required statistic to gather if the impact of tourism is to be understood by monitoring teams.

Another evaluation focal point for the impacts of tourism in natural areas is the existence of direct management strategies, including zoning, required guides, citations and fines, campsite designation, limitation of visit duration, reservation systems, and visitor number limits. Ten years ago these strategies were used by fewer than 50% of developed world parks, and in fewer than 40% of most developing world parks according to Giongo and co-authors. Unfortunately this study was never repeated, so current concerns are unknown, but the existence of regulations to manage visitation in parks and protected areas around the world is an important indicator of progress in the future to understand if ecotourism is having an impact on conservation of natural areas.

Indirect management techniques include signs, patrols, tour operators, introductory talks, written material, displays, etc. These management approaches can also be tracked as part of an evaluation framework, to understand how well natural areas are using information to educate visitors.

3. Are there initiatives to manage ecotourism impacts via land-use management techniques and environmental regulations in buffer zones, or areas in the zone of influence of protected areas?

While some attention is generally paid to visitor impacts on areas within the borders of protected areas, startlingly little attention has been paid to the management of visitor impacts outside of the borders of protected areas. The use of land by both private landowners and commercial developers outside of protected areas can have a devastating effect, and this must be tracked in order to understand more broadly the impacts of ecotourism on natural areas. The Nature Conservancy guidelines for visitor monitoring²² recommended monitoring outside of protected areas because of the impacts of tourism on local communities.

Regulatory mechanisms must also be tracked, such as the municipalities' ability to control density of land-use, and what types of environmental impact analysis is required to receive building permits. In many areas municipalities still have no ability to limit commercial buildings that do not have sewage treatment or other basic health and safety requirements.



It is difficult to imagine progress toward sustainable tourism unless important regulatory and policy gaps are addressed. In just one case study in Belize, authors of the report Rural Ecotourism Assessment Program,²³ found that while significant donor funds are flowing toward NGO projects concentrating on the conservation of biodiversity off the coast of Belize within marine protected areas, local communities living below the poverty line in buffer zones directly adjacent to marine protection areas have no sewage treatment system and no source of financial support from their government or donors to develop such a system.

4. What direct impact is tourism having on biological diversity?

While tourism's impacts on wildlife and vegetation have been tracked by protected area managers in the past decades to a limited degree (see question # 1), efforts to track tourism's direct impacts on biological diversity are just beginning. Challenges can be found particularly in the tropical rain forest, where the scientific research on these complex ecosystems is still underway, leaving many questions about how to manage visitor impacts.

The analysis of biodiversity impacts of tourism is still a very new field. Scientific institutions already working on biodiversity conservation and monitoring are ideal partners and should be enlisted in donor projects to provide the baseline data that is available, and advice on how to monitor impacts. In this author's Sri Lanka project, a biodiversity monitoring team has been established to establish indicator species and review project impacts over a 2 year period. Local research specialists have been identified with expertise in important flagship species, both flora and fauna. They will be supervised by Sri Lankan senior academic scientists, who will sit on a scientific advisory board for the project. This has been budgeted for a cost of 8% of the total donor funds invested in the project. While prices will vary in different parts of the world, the point is that an investment in biodiversity monitoring need not be prohibitive, and can likely be borne by donors as part of project investment.

5. What impact is ecotourism having on the development of new government policies that support the sustainable development of tourism?

At the World Ecotourism Summit (WES) in May 2002 in Quebec, there was an effort to collate and synthesize all preparatory meetings and presentations made during the event. Table A provides a breakdown of the recommendations made at WES according to the Policy Type needed, Policy



Tools recommended, and Policy Actions required. This table provides a good framework for future donor policy analysis.

At the international level, it is clear from the results at WES that legislative and legal frameworks for ecotourism are still lacking. There will need to be a long-term effort to develop legal policies for tourism at the national, provincial and local level. There is also a pressing need to develop budgetary mechanisms for implementation of ecotourism policy frameworks. Until fiscal commitment is achieved, planning will not result in action.

Table A
International Ecotourism Policy Analysis²⁴

Policy Type & Policy Making Body	Policy Tool	Policy Action
Legislative Body and Executive Branch		
Legal Frameworks	Legal Review of tourism policies	Integrate needs of ecotourism businesses in legal policies for tourism
Legislative Frameworks	Review of relevant legislations	Integrate needs of ecotourism businesses in municipal and local legislation
Fiscal Commitment	Budget review	Incorporation of ecotourism legislative, legal, and policy frameworks into budget for economic development
Tourism Board		
National Marketing	Internet and Trade Fairs	Incorporate ecotourism information in national travel marketing websites, public relations, and develop ecotravel trade shows
Market Intelligence	Market Research	Quality research of ecotourism market sector for nation
Regional Marketing	Regional ecotourism networks	Financial and logistical support for marketing networks
Interministerial Cooperation		
Transboundary Initiatives	Transnational policies	Meetings between countries to establish cooperation
Interministerial Planning	Integrated planning	Interministerial working groups
Tourism Ministry		
Policy Frameworks	National Ecotourism plans and policies	Policy integration with other national development and environmental conservation goals
Health Standards	Inspections and Monitoring	Ensure all new facilities are meeting health standards



Environment and Natural Resources		
Development Planning	Zoning, Land use planning	Zones limiting scale of tourism development according to site
Monitoring	Enforcement	Funds are needed to enforce development regulations
Protected Areas	Visitor Management	Funds to establish baseline data and manage impacts
Provincial or Municipal Government		
Participative Planning	Participative Policy Planning	Incorporate community and indigenous populations in planning for ecotourism development
Land Tenure	Reform of land titling	Review of land titling issues in ecotourism development zones
Land Use	Zoning, Land use planning	Develop Ecotourism Development Zones
Infrastructural Support	Signage, Roads, telecommunication, electricity, water, solid waste, sewage treatment	Review needs in ecotourism zones, target development as appropriate
Economic Development		
Public Private Cooperation	Private Sector Advisory Board	Develop Advisory Board
Sustainable Growth	National Tourism Accounting System Reform ²⁵	Development of economic indicators for tourism development in different zones. Review of incentives for development in poor and rural areas, triple bottom line results

Evaluation of government policies should be a part of any donor evaluation framework, and in-depth analysis of each of these categories should be undertaken as part of a project initiation framework.

6. Is ecotourism contributing to a better understanding of the environmental and social setting of the site/region being visited?

The role of ecotourism in educating visitors and the community has been stressed throughout the world, but in particular in Australia. Interpretation, which assists the visitor to gain a better awareness, appreciation, and understanding of and as a result, greater enjoyment from natural areas is an integral component of ecotourism. In addition, good interpretation can help generate contributions for important local conservation initiatives.



Understanding how ecotourism delivers information about the environment and local cultures is fundamental to evaluating it. An interpretive program should be evaluated by the following criteria:

- It is critical that the interpretive activity is based on sound information that is presented in a balanced manner so that visitors are able to form their own opinions.
- There should be a clear distinction between facts and opinions.
- There should be cooperation between the agency and the ecotourism operator to ensure the integrity of the content of interpretation.
- There should be an interpretive strategy that focuses on messages to be delivered and appropriate techniques to deliver the message.
- There should be training of interpretive staff.²⁰

Conclusion

This paper has sought to use recent literature, results of global participatory meetings, the author's experience in Sri Lanka with establishing a monitoring program, and other evaluation frameworks for sustainable development to determine if a set of basic questions for ecotourism development evaluation could be derived. A final draft framework for the first part of this framework is provided as Table B. Without such a framework in the future, ecotourism will lack proper oversight and put donor investments at risk. A final framework, that has the benefit of multistakeholder review, will be a valuable contribution of great importance to NGOs, communities, the private sector and donors worldwide.

Table B. **Draft Triple Bottom Line Evaluation Framework Part I** ***Questions on Ecotourism as a Conservation Strategy***

- 1 To what extent has ecotourism contributed to the cost of protecting and managing natural areas/ or the specific natural area under review?**
 - Total revenue provided to protected or natural area system?
 - Percentage earmarked for conservation in specific protected or natural areas?

- Percentage of budget provided by ecotourism to total protected or natural area system?
 - Percentage provided to individual park or natural area budget?
- 2 What are the biophysical impacts of tourism in natural areas?**
- Is monitoring of impacts taking place?
 - Is baseline data being collected?
 - What categories of biophysical impacts are there?
a. wildlife b. vegetation c. water quality d. air quality e. erosion
 - What percentage of the natural area is being affected?
 - What direct management techniques are being used?
a. zoning b. required guides c. citations and fines d. campsite designation e. limitation of duration of visit e.reservation systems f.visitor number limits
 - What indirect management techniques are being used?
a. signs b. patrols c. tour operator concessions d.introductory talks e.written guidelines f. displays
 - Is a management response system in place?
- 3 Are there initiatives to manage ecotourism impacts in buffer zones or zones affected by ecotourism development?**
- Are growth management strategies being used?
a. zoning b. visitor mangement c. tourism plans d. design plans
 - Are regulatory mechanisms being used?
a. building permit with environmental standards b. environmental impact statements c. standards for sewage treatment d. watershed protection
 - What capabilities do local authorities have to implement these mechanisms?
- 4 What impact is tourism having on biological diversity?**
- Establish data base of research on zone where tourism is to be developed, use existing biodiversity indices and establish baselines as recommended by research institutions already working on site
 - Develop a data base on indicator species, flora and fauna, 3-4 months before project initiation
 - Assign field researchers with expertise in flora and fauna to site for monitoring over a period of 1 year. Monitor impacts on a periodic basis thereafter.

- Develop parallel research programs on flagship species and other important research topics that are site specific to continue for at least one year and are monitored regularly by project thereafter.
- 5 What impact is ecotourism having on the development of government policies that support sustainable development of tourism?**
- What legal frameworks exist to provide incentives for sustainable tourism development?
 - Are there participatory planning programs that include rural and indigenous communities?
 - Is there an ecotourism plan?
 - What budgetary mechanisms are in place to support ecotourism plans?
 - What training programs are in place to support community participation?
 - What finance mechanisms are in place for small businesses?
- 6 Is ecotourism contributing to a better understanding of the environmental and social setting of the site/region?**
- Are interpretive activities based on sound information and presented in balanced manner?
 - Is there cooperation between natural areas and private sector to develop interpretive programs?
 - Is there an interpretive plan or strategy for natural areas?
 - Is there training for interpretive staff?

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