

## Five Parameters of Ecotourism

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Valley Hikes

### ABSTRACT

Before discussing the parameters of ecotourism success, it is necessary to discuss first the parameters of ecotourism itself. Ecotourism has almost as many meanings as the people who use the term. Therefore, it may be more fruitful to accept that there are many forms and degrees of ecotourism, as opposed to dividing the tourism world into eco and non-eco. Proposed here is a rating system, based on five parameters. Just as hotels and restaurants receive a rating of one-to-four stars, ecotourism attractions could be judged on a system of butterflies with respect to their environmental policies. The proposed parameters are: Reduced impact on environment /environmental sustainability policies, interaction with nature, community involvement and interaction with people, environmental activities, and economic sustainability. We then ask to what extent an ecotourism venture is able to score high on each of the parameters, on a continuous or sustainable basis.

## VALLEY HIKES AND OTHER ECOTOURISM DEVELOPMENTS IN JAMAICA

Valley Hikes is a young non-profit ecotourism company in Port Antonio, Jamaica. It grew out of a Dutch-funded Integrated Rural Development Programme. Although Jamaica has a large tourism industry, neither the government nor the private sector is yet very supportive of ecotourism development. Not until people are convinced that ecotourism can be profitable will ecotourism development receive the support it needs. It will be a long struggle for Valley Hikes.

If one is not too strict about a definition of ecotourism, many tourism attractions in Jamaica and elsewhere could be referred to and marketed as ecotourism attractions. Certainly the term ecotourism, which companies and governments are more likely to adopt, in the Caribbean and elsewhere, has considerable market value. So the number of attractions that call themselves ecotourism is growing. Oddly enough, the Jamaican Government just adopted a definition of ecotourism which is so strict and idealistic that hardly any tourism product can be called ecotourism. Within Jamaica probably only Valley Hikes would fall within the boundaries set by that definition, as will be discussed later.

## MEASURING ECOTOURISM ON A MULTIDIMENSIONAL SCALE

One of the problems of definitions is that they put a dividing line between what is and what is not ecotourism without differentiating any further. As long as many definitions abound, tourism compa-

nies can and do use the terms such as “ecotourism,” “nature tourism,” “community-based tourism,” and “responsible travel.”

There are a few ventures such as Valley Hikes in Jamaica, the Community Baboon Centre in Belize, and others, that govern themselves by strict rules to minimize negative impacts and maximize positive impacts on nature and the community.

On the other hand, so-called ecotourism can have a very negative environmental effect. For example, in the Black River in Jamaica, crocodiles are disappearing because of the number of motorized tourist launches. There are many in-between situations, where a purist would not apply the term ecotourism. The downhill bicycle tours near Buff Bay, Jamaica, have little community involvement and offer little education about nature. But this attraction has a relatively small impact on nature while offering the participants the joy of cycling in a very beautiful environment.

Instead of defining ecotourism precisely, it may be more useful and realistic to apply a gradual scale. Since most definitions of ecotourism combine different elements, the scale can not be linear, but should be multi-dimensional.

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The parameters that could be used for such a scoring are:

1. Reduced impact on environment / environmental sustainability
2. Interaction with nature
3. Community involvement and interaction with people
4. Environmental activities
5. Economic sustainability

#### PARAMETER 1: REDUCED IMPACT ON ENVIRONMENT AND ENVIRONMENTAL SUSTAINABILITY

The most important parameter when judging an ecotourism attraction must be its impact on the environment. Tourism that impacts negatively on the natural environment should not be termed ecotourism, whatever its intentions or other qualities.

Having no impact is almost impossible. From nature’s point of view, no tourism is probably the ideal tourism option. For this reason, there are many parks and reserve areas where no tourists are allowed. Of the seven magnificent waterfalls of the White River in the Rio Grande Valley in Jamaica, only the first two are open to the public.

Having a low impact on the environment can be equated with environmental sustainability. Oddly enough, some of the least environmental types of tourism may have the lowest impact. Most of the

all-inclusive hotels on the North coast of Jamaica have hardly any impact on the local environment, except for the little stretch of beach in front of the hotel. This is simply because the visitors don't leave the property. Of course that doesn't make them ecotourism products.

Low environmental impact or environmental sustainability therefore must be part of the equation, but cannot be the only criterion by which to judge whether a particular tourism product may be called ecotourism.

#### PARAMETER 2: INTERACTION WITH NATURE

It is generally accepted that ecotourism involves some form of physical activity in a natural surrounding. Hiking, scuba diving, cycling, or other forms of physical interaction with nature are an important element of ecotourism. Visiting Reich Waterfalls in Eastern Jamaica by bus should be ranked lower on the ecotourism scale than hiking for two hours toward the same waterfall.

Interaction with nature is not, however, an essential element of ecotourism. If that same bus trip to the waterfall includes environmental education, if proceeds are partly used for environmental purposes, or if the waterfall is a community-based enterprise, the overall evaluation may still be quite positive.

By definition interaction means impact. Increased interaction also means (the risk of) more impact. If hundreds of visitors used the trails of Valley Hikes daily, measures to limit the environmental impact would have to be stepped up and special paths would have to be constructed. Some of the ecotourism destinations of Costa Rica and Dominica are paved to let them carry many visitors without the risk of erosion and provide some form of railing to keep people from straying off the track.

#### PARAMETER 3: COMMUNITY INVOLVEMENT AND INTERACTION WITH PEOPLE

Both community involvement and, to a lesser extent, interaction with people are aspects of ecotourism often considered essential or at least important.

The experience of Valley Hikes is that many hikers start off saying they like hiking on their own, without a guide. By the end of the hike, comments are usually just the opposite. Visitors say they like the guides, because they explained things, showed them things they would not have discovered, assisted them in crossing a river or in climbing a steep part of the trail. Most importantly, the trail guides give visitors a chance to get to know a pleasant, rural Jamaican. In the case of Valley Hikes, the rural Jamaicans and their cul-

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ture are very much a part of the environment shown to and experienced by visitors.

Community involvement in hiking and similar ecotourism activities provides a unique form of interaction between visitors and the local people. Visitors should appreciate the local people as their host by both enjoying being a guest and by not transgressing on the rules that normally apply to guests.

In the Rio Grande Valley, the local people allow the Valley Hikes visitors to walk on their land and drink from a coconut or pick a grapefruit, mango, stinking toe, or sweetcup, to mention a few of the many fruits freely available. A few members of the community get a bit of income from working as trail guides or from selling something to visitors. Interaction with local people is very important and increases the value of the tourism product. But it is not a necessary element.

#### PARAMETER 4: ENVIRONMENTAL ACTIVITIES

The definition of ecotourism recently adopted by the Jamaican Government stipulates that part of the proceeds from a tourism attraction must be used for nature conservation in order to qualify as ecotourism. As mentioned before, Valley Hikes may then be the only ecotourism attraction in the whole of Jamaica.

Together with other organizations, Valley Hikes organizes workshops on environmentally friendly pest management for farmers in the Rio Grande Valley. Also, Valley Hikes has a tree sponsorship programme and it sets up signs to remind people to Reduce, Reuse, and Recycle. All its trail guides are also game wardens. It provides guidance to and seeks sponsorship for a community-based, hand-made paper industry. Valley Hikes will soon start building a Maroon museum. (Maroons are descendants of run-away slaves). So far Valley Hikes does most of this with funds provided by sponsors, but it plans to continue such environmental activities with the proceeds from hiking and craft sales as soon as the operation becomes more profitable.

An ecotourism organization which actively tries to reverse environmental degradation should get a higher score on ecotourism. On the other hand, this is not a necessary condition for calling a venture ecotourism. There are many commendable ecotourism attractions that have no specific environmental program.

#### PARAMETER 5: ECONOMIC SUSTAINABILITY

Environmental concerns are not normally the concerns of the industry and all too often environmentalists fail to think in economic and business terms.

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Of course there are exceptions. Dutch tobacco plantations in Eastern Sumatra (Indonesia) introduced a reforestation programme 100 years ago in order to grow tobacco on a sustainable basis. Investment in nature can make good economic sense for a company.

The reverse is also true. It makes good environmental sense to ensure that environmental activities are based on a continuous flow of income. The income can be from donations, but few sponsors are prepared to subsidize organizations on a long term basis. The other option is to generate income by selling something at a profit.

What Valley Hikes tries to do is make enough money from hiking and related activities to continue its environmental and other programmes before the present flow of donor money dries up. This has many consequences. Primarily it means that Valley Hikes must operate like a company, maximizing its profits and minimizing its costs.

The result is that Valley Hikes charges a fairly high price, at least in the eyes of many young people. The charge for a regular hike is US\$10 or US\$15 for a foreigner, and half that amount for Jamaicans. Prospective clients of Valley Hikes have said that nature is free and no charge should be levied for walking in the forest.

This notion is reinforced by the fact that many governments, including the Jamaican government, are creating and maintaining trails, with expensive pavings and signs, which allow visitors to walk through for free. They do it with the idea that more people will stay at a local hotel, eat at a local restaurant, buy souvenirs, and otherwise boost the local and national economies. But it reinforces the absurd notion that nature itself has no economic value.

For Valley Hikes, becoming economically sustainable also means that a great deal of money has to be spent on marketing and promotion. What Valley Hikes has spent already on marketing would require at least a year of operation to recuperate, but without marketing Valley Hikes would not be able to attract enough visitors to cover operational costs.

Judging or measuring an ecotourism operation must include an evaluation of its economic sustainability. Will the operation be able to continue or is it a short lived idea? Like environmental sustainability, economic sustainability is a necessary condition to be met. It is hard to see how a tourism operation can be called a success if it cannot survive.

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#### MEASURING SUCCESS ON A FIVE-DIMENSIONAL ECOTOURISM SCALE

The five parameters discussed above can be used to measure the success of tourism attractions from an ecotourism perspective. It can also be used to evaluate other tourism operations such as hotels

and other accommodations. Using a few examples from Jamaica, an attempt will be made to see to how these five parameters can be used to measure to what extent tourism attractions are “eco.”

#### CASE 1

Valley Hikes is an example of an operation that easily scores high on at least four of the criteria. Its impact on the environment is very low. The main activity is hiking through a beautiful and rich natural environment. Hikers make contact with local people, learn more about the local culture, and the community is clearly involved. Valley Hikes implements a number of projects aiming at nature conservation and reversing environmental degradation. Only its economic sustainability is not yet clear. It has enough funds to survive at least another year, but the returns from its marketing investments are still very low.

Its score on the 5-dimensional scale would be high, but its economic success is not yet guaranteed.

#### CASE 2

The second example is Rafting on the Rio Grande. On bamboo rafts that were once used to transport bananas, with a ‘raft captain’ controlling the speed and the direction of the raft. This type of rafting has virtually no impact on the natural environment. The raft captain entertains visitors with comments on the trees, birds, and other natural phenomena along the two-hour ride, so there is some interaction with nature and the local people. No environmental activities are carried out. The business has been making a profit for many years, both for the owners and for the community which supplies most of the raft captains.

The ecotourism score for Rafting on the Rio Grande should be high, because it scores high on environmental and economic sustainability and deserves a fair score on interaction with nature and with people.

#### CASE 3

Reich Falls, also in Eastern Jamaica, is a beautiful waterfall. One can swim at the bottom of the falls. It can be reached by bus or car. The managers make sure the visitors don’t leave any garbage or otherwise spoil the environment. However, there is little or no contact with local people and no community involvement beyond the employment of 2 or 3 persons. Its economic sustainability appears to be good, mainly because operational costs are kept low.

Reich Falls could be given a medium score, because it is environmentally and economically sustainable and has interaction with

nature. But because of little interaction with local people, the score is lower than that of rafting.

#### CASE 4

Near the famous Frenchman's Cove at San San, Jamaica, one can go horseback riding with a nice but not business-oriented fellow called Delroy. The impact on nature is minimal, but economic sustainability is not positive. Delroy will let you ride in various settings, and you will leave having found a new friend in Delroy. Apart from the droppings of his horses, Delroy does nothing to improve the natural environment.

An evaluation of Delroy would resemble the following description. In spite of Delroy's poor business sense and the absence of environmental activities, he has fairly good interaction with nature and with people (but without community involvement). The overall score should be moderately positive.

#### CASE 5

At the lower end of the scale is found an all inclusive hotel. There are many on the north coast of Jamaica. Assuming that their disposal systems are in order, their impact on the environment is low. This is mainly because they keep visitors within the hotel grounds for the duration of their stay, except maybe for an excursion to a rum factory or craft market. Interaction with nature is very low, and so is interaction with Jamaicans. The hotels have no environmental programmes beyond measures to reduce the impact of their operations. Their economic sustainability generally is very high. Despite good performance on environmental and economic sustainability, the overall score is fairly low, because of low scoring on each of the other three criteria.

### AN ATTEMPT AT THE ECOTOURISM EQUATION

The above evaluation of five tourism examples in Jamaica is a very crude one. Although it will always be difficult to compare apples with pears, some degree of measurement can be introduced. The following ecotourism equation is suggested to evaluate tourism products and their success.

$$Et = S_{env} \times S_{econ} \times (I_n + I_p + A_c)$$

whereby

$$\begin{aligned} Et &= \text{Degree of ecotourism} \\ S_{env} &= \text{Environmental sustainability} \end{aligned}$$

$S_{econ}$	=	Economic sustainability
$I_n$	=	Interaction with nature
$I_p$	=	Interaction with people and community involvement
$A_c$	=	Action to conserve or even enhance the natural environment

Each of the parameters could have scores of 0 (bad, weak), 1 (reasonable), and 3 (strong, positive, good).

Environmental and economic sustainability have clearly been given a higher weight in the equation. If a tourism product scores 0 on any of these, automatically the overall score will be 0. On the other hand with a score of 0 on  $A_c$  still a reasonably high overall Et-score can be reached.

Applying the above equation to the examples from Jamaica would yield the following results:

$$Et = S_{env} \times S_{econ} \times (I_n + I_p + A_c)$$

Valley Hikes:

$$Et = 2 \times 1 \times (2 + 2 + 2) = 12 = 2.3$$

Rafting on the Rio Grande:

$$Et = 2 \times 2 \times (1 + 2 + 0) = 12 = 2.3$$

Reich Falls:

$$Et = 2 \times 2 \times (1 + 1 + 0) = 8 = 2.0$$

Horseback riding with Delroy:

$$Et = 2 \times 1 \times (2 + 1 + 0) = 6 = 1.8$$

All-inclusive hotel:

$$Et = 2 \times 2 \times (0 + 0 + 0) = 0 = 0$$

The procedure is still fairly crude. It could however be refined by indicating in more detail how a score on each of the parameters is reached. This will not be attempted here.

**ASSIGNING BUTTERFLIES**

Based on the score given to a tourism product using the above or some other ecotourism equation, butterflies can be assigned to tourism products for their “eco”-ness, in a similar way as stars are given to hotels for the quality of their facilities. Arbitrarily putting the cut-off points at 1.5 and 2.0, the tourism products in the example would be assigned the following number of butterflies:

Valley Hikes § § §

Rafting on the Rio Grande § § §

Reich Falls § §

Horseback riding with Delroy §

All-inclusive hotel —

If introduced on a wide enough scale, the assigning of butterflies to tourism products would help ecology-minded tourists to plan their trips. Also, since ecotourism is on the up-swing, it would stimulate suppliers of tourism products to take measures to score higher on each of the parameters of ecotourism.

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Huub Gaymans is a Dutch citizen who graduated from Leiden University, majoring in sociology of development. For twenty years, he worked as a development expert in ten different countries in Asia, Africa, and the Americas. Environmental impacts have been a recurrent theme of the projects in which he has participated. During the past three years, he was the co-manager of a Dutch Government-sponsored Integrated Rural Development Programme in Jamaica. One of the elements he introduced was ecotourism, which is now managed by a non-profit company, Valley Hikes. Valley Hikes organizes hiking in the Rio Grande Valley (Portland, Jamaica), but also has a tree sponsorship programme and an environmentally friendly pest management educational project and carries out various activities to promote and develop ecotourism in Portland, Jamaica.

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