Sustainable Tourism in Small Islands
local empowerment as the key factor

by FRANCESCO DI CASTRI

The limits and the splendor of sustainable development.

In spite of being so widely used, sustainable development is a rather debatable term and concept when applied in operational terms to large areas and regions with badly defined boundaries, and to the interactions among too many economic sectors (di Castri 2002 a). There are so many definitions and even opposite interpretations of this concept that – paradoxically – "it is now a term that inherently eludes definitions".

Nevertheless, nowhere else this concept can be better applied for real operational activities and proper management than in small islands and as regards tourism. If a solid theory and practice on sustainable development would really emerge in the future – and this should be a must for continuing using this term – most likely they will originate from research and management carried out in these areas (di Castri *et al.* 2002 a, di Castri and Balaji 2002).

Inputs and outputs, of people (residents, new migrants, tourists), of capital and goods, of resources and even of invasive species can be easily measured, detected and observed in small islands.

Even in the absence of an accurate and sophisticated definition, local inhabitants and managers can easily and rapidly realize whether the four legs of the chair that support sustainability – the economic, the environmental, the social and the cultural ones – are unequally developed, undermined and to what extent (di Castri 1995).

Economically, whether the flow of tourists is decreasing in quantity (both total number of tourists and permanence in nights) or deteriorating in quality and return, whether tourism concentration is becoming too seasonal, where other economic sectors in the island (local agriculture, fisheries, handicraft) are not backing and supporting enough tourism activities.

Environmentally, whether coastal and soil erosion, degradation of coral reefs, deforestation, availability of freshwater, use of energy (with special emphasis on renewable energy), transport, waste management, land use (including urban planning), invasions of alien species are taking too serious adverse proportions.

Socially, whether the gap between the rich and the poor in the island increases, thus usually leading to increased criminality that badly affects tourism, whether there is a real economic return and welfare for local populations from outside operations, where the new expanding activities attract too many migrants from other regions and cultures, and whether the societal system value is collapsing.

Culturally, whether the local language remains vigorous and represents really the first mother tongue, and it is not learned later as a kind of foreign language. No local culture is possible if it is not rooted in its own language. If this is not the case, even the mental representation and interpretation of facts and events are distorted. Neither quality nor sustainable tourism is viable, if they are not inserted in a genuine culture. Cultural pride, diversity and identity, to the extent that

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Figure 1 Back in the horizon the emerging mountains of Bora Bora facing its "*small sister*" Maupiti and its lagoon. Maupiti has adopted patterns of tourism development much more sustainable than those of Bora Bora.

they do not lead to the rejection of the others and to a kind of naive, false and exclusive genetic racism, provide local residents with the self-respect and self-recognition, and with the absence of preconceived prejudices or sense of inferiority and dependence, that are the sine qua non for sustainable tourism. Among all economic sectors, tourism is the one that can only survive if it strictly applies the principles of the *trust economy*.

Given the paramount and growing importance of the cultural component of development, it is somewhat strange that so little attention has been given so far to culture as the key element for sustainability, even in large international fora as the one in Johannesburg last year.

All the above conditions can be easily detected even in the absence of the so-called indicators of sustainable development. In my own research and development on small islands, they have proved to be of little use. The most misleading indicator is probably that of *carrying capacity* (di Castri 2000). Comparisons among islands from Polynesia, the Caribbean and the Mediterranean show that there are no linear relations between population size of residents and of tourists, local natural resources, surface size and sustainability. As an extreme example, the frequency of tourist visits, when considering the size of the island, is some 150 times higher in Porquerolles and 240 times higher in Port-Cros (two French islands in the Mediterranean Sea) than in Easter Island (politically Chile, geographically Polynesia). Yet, the terrestrial and marine environment of these two Mediterranean islands are well conserved, compared with Easter Island, where tourism and the environment are facing very serious problems of sustainability, embracing almost every aspect of island management. Sustainability does not depend just on inherent natural and demographic features, but – above all – on human know-how and cultural adaptation, distribution and diversification of space use, and the existence of appropriate service and infrastructure.

Two last characteristics on tourism sustainability are explained below. Tourism is the most sensitive factor to outside, out-of-control events. For instant, the attack of 11 September 2001 has almost immediately produced catastrophic consequences on the tourism of some small islands that were considered to be wisely and sustainably oriented. All the organization of tourism, the marketing system in different parts of the world, the cruiser tourism viability, and the very *raison d'être* of too large resorts, had to be drastically reviewed (di Castri 2002 b). A new paradigm for tourism sustainability in small islands has accordingly emerged. Tourism, to be sustainable, has to be early reactive and adaptive to change.

Second, when some segments of sustainability become to decline, such as too many tourists not respectful toward the environment, criminality and tourist harassment, excessive urbanization, cultural degradation and trivial uniformity, lack of trust and control on quality and prices, tourism tends to initiate a progressively *self-destroying cycle* that is very difficult to be reverted. The number of tourists and the period of permanence decrease, the level and the cultural interest of tourists are lowering, prices are progressively collapsing, and discontinuation or bankrupt of several tourism operations become unavoidable.

Tourism sustainability in the global information society.

It is often not sufficiently realized how much human society and its more or less sustainable activities have changed during the last 15 years or so, during the transition from the industrial to the information, knowledge-based society. This transition and the previous ones have been extensively illustrated in their phases by di Castri (2002 c). Tourism is – by far – the economic sector that has been more reactive to this societal transition.

Let's consider and enumerate, for instance, the main causes that were leading to lack of tourism or to unsustainable tourism in small islands, before this period. Admittedly, the case applies more to distant, remote or underdeveloped archipelagos and islands, such as Polynesia, Micronesia, Melanesia, Cap Vert, Maldives, Seychelles, part of Macaronesia, part of the Baltic Islands, than to more advanced and fashionable Mediterranean and Caribbean islands or to the Canary Islands.

Main causes and constraints were as follows:

1. Isolation and fragmentation, thus undermining the possibility of appropriate marketing and benchmarking, as well as that of organizing complex and diversified itineraries covering more than an island.

2. Very often, too low human population size in a given island for maintaining the dynamic culture evolution, including its own language, that is needed to keep and valorize the local identity when newly opening to tourism.

3. The impossibility for local inhabitants to initiate small tourism entrepreneurial activities by themselves, not going through large tourism operators, to advertise and marketing directly their tourism products, to receive direct booking and to accept payment by credit cards.

4. The impossibility to provide islanders with appropriate education in their own language; even less, to ensure continuous

Figure 2 Francesco di Castri and his Polynesian assistant Sping Teupoohuitua at the top of the Teurafaatiu mountain of Maupiti, the most sustainable island of the entire Society archipelago (Autonomous Territory of French Polynesia).

capacity-building on tourism matters.

5. When there was tourism, this was then confined almost exclusively to large international tourism operators, with often-inappropriate resorts or large tourism camps. Economic return to local population was low and based on dependence. Contacts between tourists and residents were insufficient, inappropriate and biased. They did not lead to interactions among cultures, mutual understanding and sharing aspirations and interests, that is the very *raison d'être* of tourism – from a cultural and social viewpoint – in a world so culturally fractured as it is the present one.

At present, none of these five past constraints is still applicable. With the establishment of the information society and the new generation of information technology, the most isolated and small islands sharing similar culture and aspirations can be easily connected for cultural, educational and economic purposes. An impressive cultural Renaissance of local languages and art expressions is taking place, with special emphasis on Polynesia (Tahitian, Marquisian, Rapanui languages), and local identities are strengthened. Continuous e-learning provides unprecedented possibilities for education, capacity-building and training. There is a blooming of tourism micro-enterprises, often at a family level, often accompanied and backed by agriculture, fisheries and pearl culture. With an attractive web site for advertisement, in order to provide information and receive booking for accommodation, and with a small number of simple but appropriate housing, it is possible to initiate small-scale tourism activities in islands where this was considered impossible to be achieved, even only a few years ago (di Castri 2003 a).

Even during the tourism crisis after 11 September 2001, small tourism operators and family micro-enterprises resisted better, and provided a greater diversification of activities, than large operators and resorts.

Concepts and practices as those of *digital islands, e-learning and Grid Technologies, VIAD (Virtual Institute for Alphabetization for Development)* are becoming familiar – at present - for tourism viable development,
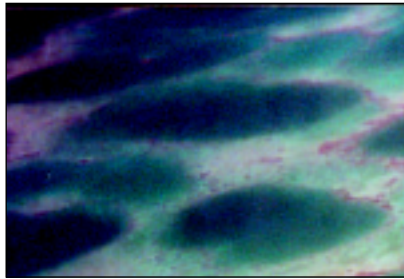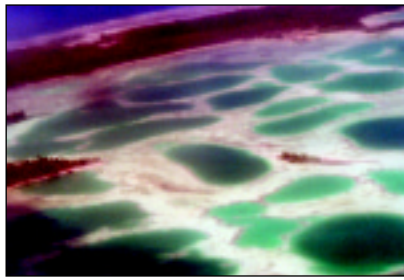

Figure 3a The atoll of Mataiva (Tuamotu Archipelago) with its unique reticulated net of coral reefs inside the lagoon, thus delimitating some 70 basins of turquoise water. Mataiva has the potential of developing the most sustainable tourism of the overall archipelago, to the extent that mining exploitation and extraction of phosphates in the lagoon is prevented, including through international public pressure, given the uniqueness and worldwide significance of its lagoon.

Figure 3b The excellent, healthy status of the coral reefs in the lagoon of Mataiva.

particularly at a small scale and with the involvement of local populations.

Particularly relevant is the alphabetization for development. Alphabetization (mostly through e-learning) consists of making people aware of the two new languages that dominate the present world: the **digital language** and digital information provided by the new generation of computers and information technology as a product of cultural evolution, and the **genetic language** and genetic information provided by biodiversity and biotechnology as a product of biological evolution. Being illiterate in these two languages, most development opportunities are lost, not even envisaged or perceived by people (di Castri 2003 b). Possibility for local, distant populations to master such languages is surprisingly rapid and easy.

di Castri *et al.* (2002 b) discuss and review the main applications of information technology to tourism sustainability in islands, going from better management and marketing, innovation in organizational patterns, enhancement of biological and cultural diversity, application of high performance tools, capacity-building, better health

care through telematics, and database on biodiversity.

If small islands are – for reasons already discussed earlier - the best indicators of global change and adaptation (or lack of adaptation) to change, this situation applies – to different degrees – to all countries and regions of the world. The transition toward the global information society does not recognize boundaries. Nevertheless, globalization and international trade were only a minor concern during the UN Rio Summit in 1992 when the concept of sustainable development was first approved (but discussions on it, with only some minor differences, went back up to the UN Stockholm Conference in 1972). Ten years after Rio, last year (2002) in Johannesburg, sustainable development has been mostly discussed out of context of the ongoing information society. Most discussions in Johannesburg have led to a feeling of strange alienation from the realities of the present world. Again, it is desirable that research and development in small islands, more focused in space and more reactive to today realities, can help improving operational knowledge and practice on sustainable development in general.
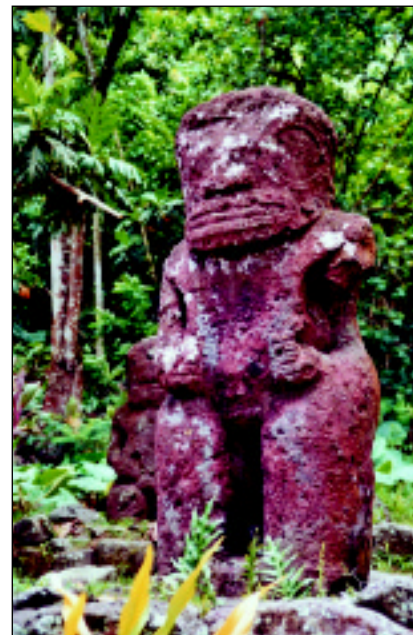

Figure 4 Hiva Oa (Marquises Islands). The emblematic *tiki* of Takaii, under a giant breadfruit tree (*Artocarpus*). Archaeological site of Lipona (Oipona), near Paumau. Takaii, sculpted on keetu, a red volcanic tuff, is the tallest tiki of Polynesia (2.67 m), not considering the moai of Easter Island.
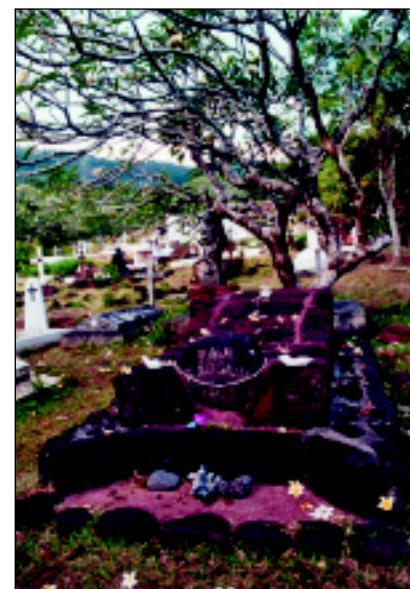
The three main conditions for tourism sustainability in small islands.

On theoretical, and – above all – empirical evidence, conditions of tourism sustainability in small islands can be found when the following three conditions are met, at least to a reasonable extent.

1. **Empowerment** of the local people and the emergence of their entrepreneurial capacity. They are the only actors capable of meeting their aspirations for development with their concern for conservation of their culture, their environment and their biodiversity. Conservation of cultural and natural heritage should be considered as a dynamic and continuously adaptive and evolving process, and not a simple preservation of the status quo, or of a hypothetical *status quo ante*.

2. **Connectivity** among all stakeholders concerned, from local populations to potential tourists, tourism operators and environmental managers. Aspects of *in situ* social cohesion and connection, as well those of international marketing and benchmarking are equally important, going from the local to the global scale. This implies a network-based, decentralized approach, which is largely facilitated by new tools of the information technology.

3. **Diversification** of tourism activities themselves, and as placed in the context of economic diversification of other sectors. A tourism "monoculture" would be too risky in the current unpredictable society, and would not ensure *per se* conditions of sustainability. All aspects of cultural diversity (both the tangible and the intangible facets, language, traditions, system values) and of biological diversity (from genes to species, to ecosystems and landscapes) should be considered under this item.

A more detailed characterization of conditions for tourism sustainability in small islands – a checklist to be monitored in a comparative way - is given as follows. They shape three blocks, with seven pillars in each one of them.

Figure 5 Hiva Oa, Atuona, Marquises Islands. The tomb of Paul Gauguin (called *Koke* by the Marquisians), dead in Atuona in 1903, under a fragrant tree of frangipani called locally "tipanier" (*Plumeria*), and a reproduction of his statue *Oviri* ("The Wild").

LOCAL EMPOWERMENT	• Access to bi-directional digital information
	• Capacity-building, including distance learning
	• Cultural pride and memory of traditions. Cultural revival (local language, arts, folklore)
	• Sense of identity, based on cultural and natural heritage
	• Acceptation, receptivity and adaptation to innovation and change
	• Entrepreneurial capacity and potential of local people
	• Administrative conditions of autonomy

CONNECTIVITY	• All elements of the community system in close interaction and cooperation among themselves
	• Ability of the community to establish connections with other islands, and opening up to the global international tourism
	• Enlargement of market place, channels of distribution and advertisement, marketing and benchmarking capacity
	• Transport facilities (by air and by sea, also internal in archipelagos)
	• Telephone, Internet and fax communications. Use and acceptance of credit cards
	• Conditions of security and safety in the island
	• Infrastructures, mostly for medical care, including tele-medecine facilities

DIVERSIFICATION	• Diversity of tourism uses (beach tourism, diving and snorkeling, trekking and land sports, horse riding, ecotourism, agrotourism, cultural and archaeological tourism)
	• Appropriate daily and seasonal distribution of tourism activities, the main goals being those of increasing the permanence in nights, and to transform an occasional tourism in a destination tourism
	• Diversity of tourism accommodations, from high level comfort (but strictly avoiding large resorts not fully integrated into the local cultural and natural environment), to in-house accommodation of local inhabitants
	• Diversity of economic activities (tourism, agriculture, fisheries, pearl culture, aquaculture, forestry, handicrafts, energy sources and uses, with special emphasis on renewable energy, elaboration of local products including for exports, services)
	• Conservation and valorization of the biological diversity, mainly carried out by the local populations themselves, going from genes to species, ecosystems and landscapes. Main impacts affecting biodiversity in small islands are invasive species, soil erosion, overgrazing, overfishing and coral reef degradation
	• Landscape and seascape ecology and management, including designing and building new landscapes and seascapes, if so needed.
	• Diversification of cultural attractions, from the oldest traditional ones to those derived from successive cultural encounters. Culture is an eminently evolving, and not fixed, entity.

Local empowerment

Out of the three boxes of sustainability, described below, I will only give some more consideration to local empowerment, since it represents the essential condition. With no empowerment, it would be impossible to reach the conditions of connectivity and diversification.

Indeed, empowerment of people is the key factor. It is based on the renewed awareness and pride on the universal value of their culture and environment. Empowerment enables the local people to become actors and operators of tourism activities, so that the generation of economic wealth primarily benefits local societies. Together with the access to information, empowerment is promoted by opportunities for lifelong distance learning and capacity-building, and development of tourism-related skills.

This process can foster cross-cultural exchanges approached with appropriate sensitivity. Moreover, isolated populations sharing the same culture can be connected through digital communication tools, so that they can reach a critical size for diversification of tourism products and services. In some situations, tourism has been shown as a catalyst in promoting the cultural revival and identity of a given region or ethnic group (di Castri 2000).

It should be underlined again and strongly stressed, that conservation of biological and cultural diversity is merely a utopia or a pointless action, unless it is put into the context of development activities involving

local populations. They can become actors of conservation only to the extent that they are – above all – actors of their own development, and realize by themselves and in the practice of their daily life how linked and interdependent are these two processes. This is the so-called "contextualization" of the environment within clear development objectives, the only way to get realistic progresses in biodiversity conservation.

This ineludible relation between development and environment applies everywhere, even in developed countries. No conservation of UNESCO sites of the World Cultural and Natural Heritage, national parks, biosphere reserves is possible, out of the prestige given by what is much too often a simple international label with few management repercussions, unless it is clearly contextualized and applied within a development goal. The tourism sector is usually the most appropriate one.

The seven main objectives of local empowerment are as follows (di Castri *et al* 2002 b):

1. Fostering community networks, to help communities make use of information and communication technologies to improve their living conditions, to identify resources to address social problems with the community, and promote the interaction between low-income groups with similar problems and needs, even if they stand at great distance.
2. Training community facilitators and promoters on how to manage the technique and its potential for tourism development.
3. Dissemination of information in the public domain.
4. Creation of basic job skills, to include computer use and application, business management, marketing and benchmarking, e-commerce.
5. Job creation, to increase employment opportunities through partnership with business and professional associations, and design an online database of job opportunities and applicants.
6. To facilitate and encourage entrepreneurships.
7. To establish partnerships so that different people and organizations can work together, in the most informal, free and flexible way, to address common interests and concerns.

Out of the so dramatic situation of poverty in the world, out – above all - of all demagoguery, hypocrisy and inaction linked with this drama, I don't know myself – empirically and conceptually - of any other action able to break the vicious circle of poverty, in the present world, out of the access to information and the empowerment of local populations.

How does local empowerment emerge and strengthen itself? Is it a long process to be established? During the last 12 years or so, I have never observed the emergence of such a stimulating process of awakening to a new future – *l'éveil* - and of revival to a new life – a life made of hopes and achieved aspirations – in the absence of the access to the new type of bi-directional information (the Internet and e-mail).

It should be stressed that access to information – in present society – does not mean only or mainly the capacity and ability to receive it. It is rather the capacity to elaborate and process it and – above all – to transmit it freely, with no censure, with no limitation, in the own mother tongue, to the person he/she likes, usually a neighbor or somebody of the same culture living at great distance. This feeling of freedom, of force of communication, is the first trigger toward empowerment.

When a person from a local population is in a position to receive this information, the first reaction is one of surprise. It is neither the usual State propaganda nor the usual centralized management guidelines, rarely applicable to specific situations with the immense variety of islands. The person realizes then that he/she has "a possibility of choice", and this is the very definition of freedom and democracy. The person furthermore realizes that he/she can complement and modify that information on the basis of local experience and aspirations for development. This information is transmitted to a number of friends or associates, responses are almost immediately received, and this is at the origin of the first informal network.

It should be realized that most societies from small islands, including the poorest ones, and in general all isolated and poor peoples of the world, consistently aspire to break free from their isolation through new communication devices, in order to establish closer and continuing contacts with people sharing the same culture and development goals, and with the rest of the world. Moreover, their ability to quickly learn and actively handle and manage the new techniques is remarkable, as is their intuitive understand of logic behind the functioning of a computer, or e-mail communication and surfing. The process of local empowerment can often be astonishingly rapid, but it should certainly be an evolving process of continuous refinement and achievement.

Figure 6 Easter Island, one of the islands of the world where condition of tourism sustainability are among the lowest, because of totally inappropriate "bizarre" land management. Dramatic erosion processes in the oldest volcano of Poike, a site of extraordinary historical and archaeological interest (the moai are unusually sculpted on trachyte). Erosion has been provoked earlier by most intense overgrazing by sheep, and now by cattle and horses.
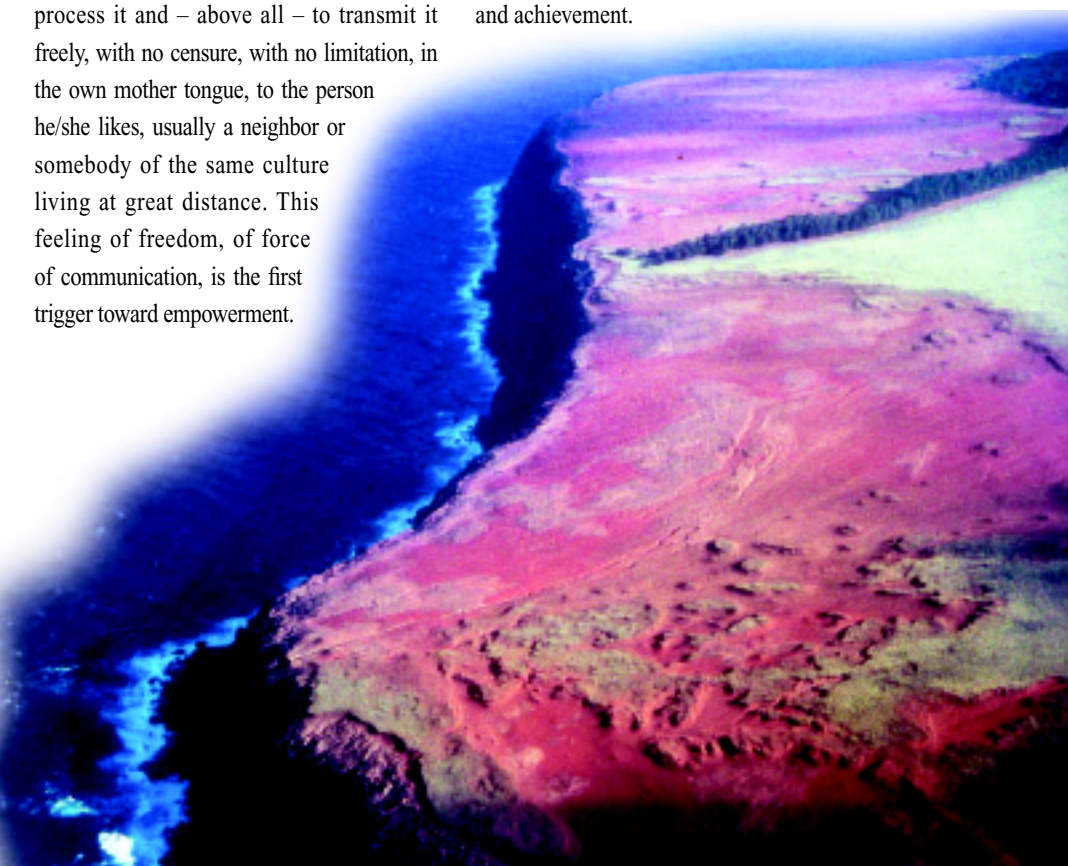
Local empowerment is also the best solution to respond to globalization in an adaptive and specific way, a specificity reflecting local resources and local aspirations. Only an appropriate, specific and "tailored" response, and not a generic and uniform one as at the time of the previous industrial society, has a chance of being competitive and successful in a period of globalization.

How to call and to refer to "local empowerment" in other languages out of English? An appropriate translation does not exist. In Spanish, the words "*apoderamiento*" or "*empoderamiento*" are sometimes used. In French, mostly in Quebec (Canada) where people are very cautious of not using British forms, the new word of "*autonomisation*" has been coined. In Italy, and to a lesser extent in France, *empowerment* is used as such, as a non-translatable neologism.

In Italy, the Polynesian word of *mana* is sometimes used as synonymous of empowerment. *Mana* is the spiritual, immaterial, internal power that gives the capacity to a given man or woman of taking in hands his/her own destiny, and the conviction, trust, strength and ability to master it. It is also the possibility of communicating at distance. When working in Polynesian societies, I have been since years explaining the potential power for them of the information technology, mostly for tourism development, and the reply has been consistently the same: "*This is very simple and easy to understand. This is just mana*". In Polynesia, the two fundamental societal principles are those of *mana* and of *tapu* (translated into English in a very restricted, limited and even negative meaning as Taboo). *Tapu* represents the norms and the traditions, "the limits", that an individual should absolutely avoid to infringe, break or overcome, if the social cohesion of the overall community has to be preserved.

It is amazing to realize how many analogies, linkages and connections are there between the modern terms of empowerment and connectivity, largely derived from island research and management, and the so old ones – coming from the largest insular civilization of the world (Polynesia) – of *mana* and *tapu*.

Comparisons on sustainability

Sustainability can better be evaluated by comparison with other equivalent islands than in absolute terms. Considering the main land and sea forms of tropical islands, three main types of islands are usually described: a) High islands surrounded by coral reefs, thus circumscribing a central lagoon; b) High islands with no coral reefs; and c) Atolls (only coral reefs and lagoon with no central mountain). They represent three stages of the geological evolution, the high volcanic islands with no coral reefs being the most recent ones, and atolls the oldest ones.

No type of island seems to be more prone to tourism sustainability than other types. It is just a problem of cultural adaptation to change of local populations and of appropriate management.

Those more appealing for tourism are the high islands with coral reef and lagoon, since they include all types of landscapes and seascapes. Figures 1 and 2 single out an outstanding case of sustainability in Maupiti, an island in the Society Archipelago.

Atolls are becoming increasingly appealing for tourism, along with the expansion of activities of diving and snorkeling. I single out in Mataiva (Tuamotu Archipelago) the most significant case of sustainability of an atoll, because of the unique features of its lagoon (Figures 3 a and 3 b), the high diversity of birds and fish, and the empowerment of the small local population.

High islands with no coral reefs are often a case, among other activities, of cultural and archaeological tourism. This applies, for instance, to Rapa Iti (Australes Archipelago), the Marquises Islands in French Polynesia and – above all – to Easter Island (di Castri 1999).

A more detailed comparison between one of the Marquises Island, Hiva Oa, and Easter Island is very appropriate, because of a number of similarities, as follows.

1. Hiva Oa and Easter Island are both high volcanic islands with no coral reefs.
2. Most likely, the first inhabitants of Easter Island came from the Marquises.
3. They both experienced demographic and cultural collapse, close to ethnic extinction, from the middle of 1800, and a surprisingly fast recovery last century.

Figure 7 Hiva Oa, Marquises Islands. The stele dedicated to the great poet, composer and interpreter Jacques Brel, dead in 1977, looking at the islands of Hiva Oa and Tahuata. Brel is a charismatic and mythical figure for two-three generations of Europeans. *Gémir n'est pas de mise aux Marquises* (something like, "Complaining himself is meaningless when one lives in the Marquises"), the last verse written by Jacques Brel before his dead, is sculpted in the stele. The last poem and song of Jacques Brel "*Les Marquises*" is the best evoking, imaginative illustration of what is the feeling in an island, when conditions of sustainability and empowerment prevail.
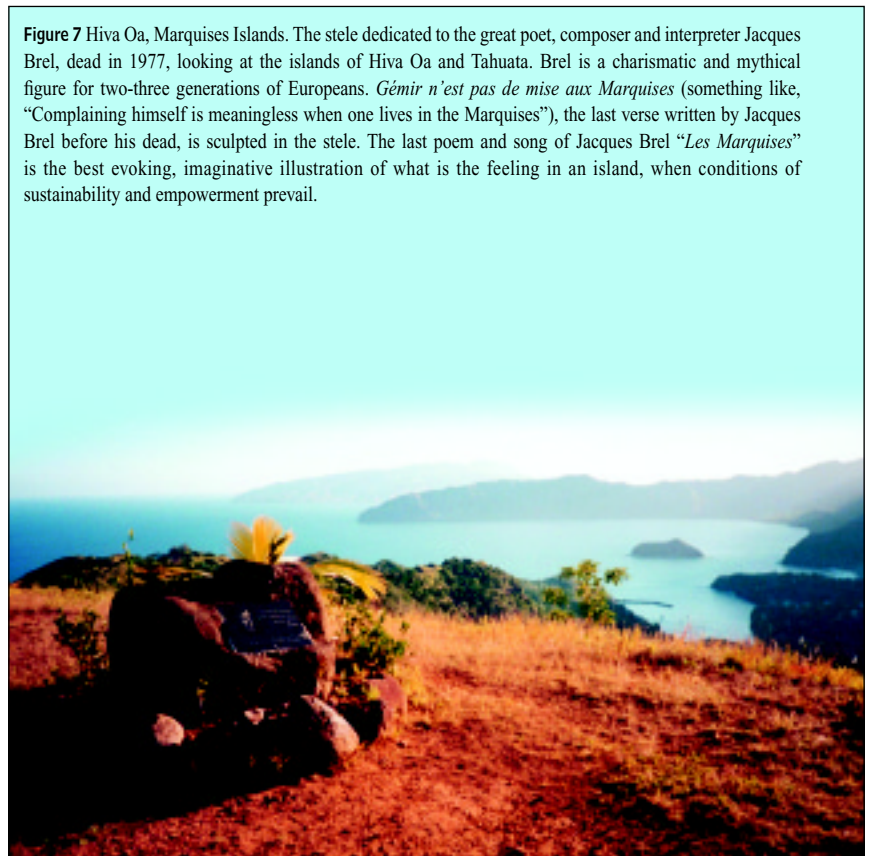
4. The most impressive statues (moai and tiki) from Polynesia are in Easter Island and Hiva Oa.

5. Cannibalism was largely spread out in both Hiva Oa and Easter Island. However, while there is a kind of cultural pride in Hiva Oa for such sacred cannibalism with so sophisticated rituals (and the history of it is one of the tourism attractions), cannibalism is almost not mentioned in Easter Island (and – most likely – cannibalism in Easter Island had an alimentary scope rather than to represent a sacred societal function).

6. Both Hiva Oa and Easter Island have been evangelized by the Catholic Church, which is still dominant (unlikely most of Polynesia and the Pacific).

7. The ability and the extraordinary art and force for sculpting on stone and wood are still astonishingly widespread in both the Marquises and Easter Island.

In spite of so many similarities, it would be difficult to imagine two societies that are more different – at present - in their behavior, aspirations and economic wealth than those of Hiva Oa and Easter Island, two islands managed in a more different way and following more distant principles, and two levels of tourism sustainability more diverse, very high in Hiva Oa and very low in Easter Island.

In Hiva Oa, the Marquisian language is reborn and widespread, while in Easter Island some 77 % of children go to school having Spanish as the first language. Biological and cultural diversity is very high in Hiva Oa (Figures 4, 5 and 7), and local inhabitants participate to its protection and valorization, while land use and land management in Easter Island is one of the worst of the world, leads to the collapse of biodiversity and to almost inconceivable phenomena of soil erosion (Figures 6 and 8).

Problems are intermingled and complex (di Castri 2003 c), but – if I were asked to evoke only one cause – I would say that Hiva Oa and the Marquises enjoy the very high level of administrative autonomy and political initiative within the French Polynesia Overseas Territory (with some special conditions of autonomy referring to the Marquises), while Easter Island stands like an almost undifferentiated part of the continental

Chilean territory and is managed like a large farm of Central Chile. This is in spite of the fact that nothing, from the cultural to the natural aspects, is in common between continental Chile and Easter Island. In other words, and taking the leitmotiv of this article, inhabitants of Hiva Oa enjoy since long

conditions of local empowerment, and those of Easter Island not yet. It is hoped that cultural and natural degradation in Easter Island would not become irreversible, before empowerment of local people be accepted and develops in a feasible and workable way.

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Figure 8 Easter Island. Recent, over-embracing erosion in Poike, at different stages of advancement, including in between the grasses. Result of overgrazing by newly introduced, heavy zebu Brahma cattle. The soils of the three main volcanoes of Easter Island are literally going to the sea. In spite of being a site of the UNESCO World Cultural and Natural Heritage (nominated in 1995), the National Park of Rapa Nui (Easter Island) is by far – among all islands studied – the one where the degradation processes are the most advanced and the management most unwise.