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The role of tourism in sustainable economic development

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Abstract. Tourism is now one of the world's largest industries and one of its fastest growing economic sectors. For many countries tourism is seen as a main instrument for regional development, as it stimulates new economic activities. Tourism may have a positive economic impact on the balance of payments, on employment, on gross income and production, but it may also have negative effects, particularly on the environment. Unplanned and uncontrolled tourism growth can result in such a deterioration of the environment that tourist growth can be compromised. The environment, being the major source of tourist product, should therefore be protected in order to have further growth of tourism and economic development in the future. This is specially true with regard to tourism based on the natural environment as well as on historical-cultural heritage.

Sustainable tourism has three interconnected aspects: environmental, socio-cultural, and economic. Sustainability implies permanence, so sustainable tourism includes optimum use of resources, including biological diversity; minimization of ecological, cultural and social impacts; and maximization of benefits for conservation and local communities. It also refers to the management structures that are needed to achieve this.

The paper provides a theoretical framework for sustainable tourism. It comprises two parts. The first part presents general views on tourism and sustainable economic development, and some opinions on the relationship between tourism and the environment. The second part concentrates on strategies and policy instruments.

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1. Defining sustainability and sustainable tourism development.

1.1 Sustainability is one of the key-words of the 1990s. Sustainability and sustainable development were given impetus and made popular by the Brundtland report [WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, 1987]. It defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Both an equity dimension (intragenerational and intergenerational) and a social/psychological dimension are clearly outlined by this definition. The Brundtland report also highlighted the "essential needs of the world's poor, to which overriding priority should be given", and "the idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs".

The Brundtland report stimulated debate both on the environmental consequences of industrialisation and on the effects of present actions for future generations. Moreover, the report reactivated interest in the physical or ecological constraints of economic growth. As a result, sustainability and sustainable development began to appear in a range of contexts and to figure as an explicit goal in many domestic and international policy-oriented institutions.

For instance, at an international level, the Rio Conference [UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT, 1992] marked the beginning of a world wide commitment which recognises the principle that the right to development must be exercised in such a way that satisfies social and environmental needs of current and future generations, in an equitable manner. This acknowledges a commitment that signifies the adoption of certain rules of resource and environmental management for the compatibility of economies with their environments. In the same direction, at a supranational setting, the European Community in its Fifth Environmental Action Programme [COMMISSION OF THE EUROPEAN COMMUNITIES, 1992] described the defiance of the 1990s in terms of the exigency of a far-sighted, cohesive and effective approach to achieve sustainable development[1].

[1] More recently, the Sixth Community Environmental Action Programme (COMMISSION OF THE EUROPEAN COMMUNITIES, 2002) provides the new environmental component of the Community's strategy for sustainable development. On the whole, it continues to pursue some of the targets from the Fifth Programme. But the new Programme goes further, adopting a more strategic approach. It calls for the active involvement and accountability of all sectors of society in the search for innovative, workable and sustainable solutions to the complex environmental issues.

But if the concepts sustainability and sustainable development have been progressively accepted by domestic and international policy agendas and seem more and more helpful in providing new and fresh dimensions for the decision-making process and the basic economic problems of scarcity, economists have been generally slow in providing adequate responses to many important issues [HOWARTH, 1997].

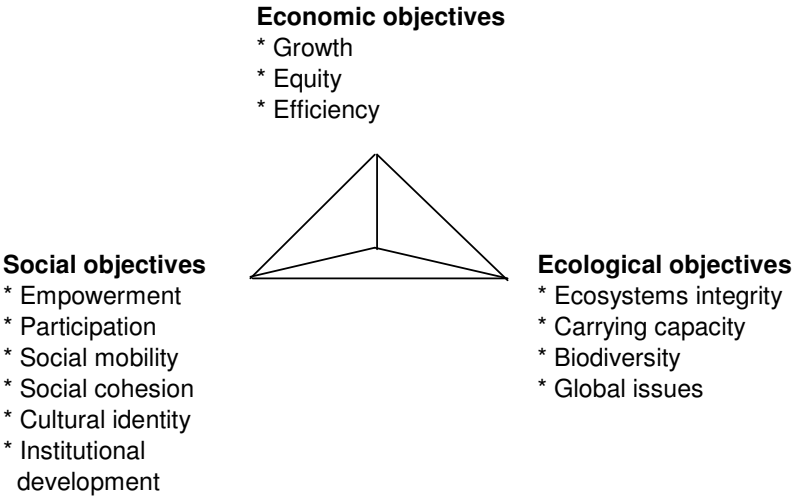
A number of implications and limitations of these concepts have not been discussed in as much length as it would be desirable, especially when the general paradigm of sustainability has been applied not only on a world scale, in the wider context of global environmental resources, but even at smaller territorial levels, both national, regional and local [NIJKAMP, 1993]. A clear interpretation of the notion of sustainability is lacking in many analysis of sustainable policies, since this may depend on underlying subjective or ideological views [CREACO, 2001]. The difficulties in defining sustainability at the various levels at which it could be achieved, together with the related incomprehension of how sustainability at different decision-making levels is related, have frequently led environmental policies which use such a new conceptual framework to rest on insecure and unstable theoretical foundations.

On the other hand, if there are many interpretations of sustainable development, nevertheless, there is a broad consensus that, at a minimum, sustainable development does capture two central and basic ideas:

- That development has an economic, a social and an environmental dimension, so that development will only be possible if a sound balance is made between the different components that contribute to the general function of natural environments – the function of life support;
- That the current generation has a moral obligation towards future generations to leave sufficient social, environmental and economic resources for them to enjoy levels of well being at least as high as our own.

If the core features of sustainability (ecology, economy, and equity) be considered as the tips of a triangle (see Figure 1), then it is the relationship between ecology and economy, and economy and equity respectively, that represent the key points in the sustainable development issue. In this systems approach, thus, sustainability is viewed as an "exercise in the conditional optimisation and fine-tuning of all elements of the developmental system so that system, as a whole, keeps its bearings without one of its elements surging forward to the detriment of the others" [FARREL-RUNYAN, 1991].

Figure 1 - Objectives of environmentally sustainable development.



1.2 In analysing the details of the concept of sustainability, many issues have emerged as points of controversy and departures for adherents to different views of environmental ideologies [CREACO, 2002; PANELLA, 2002]. On the whole, "four basic world views can be distinguished, ranging from support for a market and technology-driven growth process which is environmentally damaging, through a position favouring managed resource conservation and growth, to 'eco-preservationist' positions which explicitly reject economic growth" [PEARCE-TURNER, 1990, p. 13]. These world views encompasses different ethical values and policy strategies and, consequently, range from the extreme resource preservationist paradigm to the extreme resource exploitation stance [TURNER, 1995; HEDIGER, 1999]. Interpretations of sustainable development can be correspondingly distinguished as ranging from very strong to very weak.

Figure 2, based on TURNER-PEARCE-BATEMAN [1994], summarizes these major sustainable development positions, which in practice are less clearly defined and are overlapping. In general, "weak" sustainability is referred as an economic value principle which is based on the body of neoclassical capital theory. In contrast, the concept of "strong" sustainability, founded upon the laws of thermo-dynamics [COSTANZA-DALY-BARTHOLEMEW, 1991; DALY, 1991; COSTANZA-DALY, 1992], emerges "from the pre-analytic vision of ecological economics that the economy is an open subsystem of the finite and non-growing global ecosystem" [HEDIGER, 2000, p. 483].

Figure 2 - Main elements of the sustainable development spectrum.

Sustainability positions	Defining features
Very weak	Anthropocentric and utilitarian; growth oriented and resource exploitative; economic growth ethic in material value term; natural resources utilised at economically optimal rates through unfettered market mechanisms operating to satisfy individual consumer choice; infinite substitution possible between natural and human-made capital; continued well-being assured through economic growth and technical innovation; instrumental value in nature.
Weak	Anthropocentric and utilitarian; resource conservationist; growth is managed and modified; concern for distribution of development costs and benefits through intra- and inter-generational equity; rejection of infinite substitution between natural and human-made capital with recognition of some aspects of natural world as critical capital; human-made plus natural capital constant or rising through time; decoupling of negative environmental impacts from economic growth; instrumental value in nature.
Strong	Eco-system perspective; resource preservationist; recognises primary value of maintaining the functional integrity of eco-systems over and above secondary value through human resource utilization; interests of the collective given more weight than those of the individual consumer; decoupling important but alongside a belief in a steady-state economy as a consequence of following the constant natural assets rule; zero economic and human population growth; instrumental and intrinsic value in nature..
Very strong	Bioethical and ecocentric; extreme preservationist position; nature's rights or intrinsic value in nature encompassing non-human living organisms and even abiotic elements under a literal interpretation of the Gaian argument; anti-economic growth and reduced human population.

1.3 Parallel to the emergence of a large and variegated literature concerned with the concept of sustainable development, many studies have begun to highlight tourism-

ecology interrelationships and, in particular, the harmful effects of mass tourism on natural, built and socio-cultural resources of host communities in order to meet the fundamental objectives of promoting their economic well-being, preserving their natural and socio-cultural capital, achieving intra- and intergenerational justice in the distribution of benefits and costs, securing their self-sufficiency, and satisfying the exigencies of tourists [HUNTER, 1997; KO, 2001]. As an outcome, a substantial and growing literature now exists relating to the notion of sustainable tourism development [BROWN-TURNER-HAMEED-BATEMAN, 1997; FOSSATI-PANELLA, 2000]. In this vein of inquiry, particularly, CLARKE [1997] provides a clear analysis of the various approaches to sustainable tourism, whilst COLLINS [1999], in a brief theoretical contribution, supplies a simple and straightforward analysis of tourism development from the perspective of an advocate of strong sustainability criteria[2].

However attractive the notion of sustainable tourism as balanced development that satisfies the exigencies and desires of tourist (demand), the exigencies and desires of public and private tourism industry operators (supply) and the protection of the (natural, built, and cultural) resource base for tourism, difficult questions remain to be addressed. For example, the search for a balanced tourist policy implies a comparison between the benefits of the tourist sector and the social costs imposed by this sector. The assessment of these effects is however fraught with many difficulties.

As regards the benefit side, the prevailing literature classifies the socio-economic effects on the national and regional economy as follows [PEARCE, 1991]:

- *balance of payments*: for many nations, tourism is often the main source of foreign exchange earnings, although some reductions of the net benefits of the balance of payments can be expected because of the actions of foreign tourist operators;
- *regional development*: tourism frequently spreads economic activities more across the internal border of the particular country;
- *diversification of the economy*: because of its multi-faceted nature, tourism may foster the build up of solid economic development;
- *income levels*: the income effects of tourism may give rise to wide variations in income multiplier;

[2] On this argument see the criticisms claimed by VELIKOVA [2001] and the further considerations by COLLINS [2001].

- *state revenue*: the State earns revenues due to tax collections, although it has been acknowledged that significant expenditures for building and construction activities may also be required;
- *employment opportunities*: in most countries tourism is an important source of employment, especially for the unskilled and semi-unskilled labour-force.

Obviously, these effects will vary from one country to another according to a wide set of circumstances, such as the tourism lifecycle, local tourist promotion strategies and the utilisation of adequate information systems and marketing strategies. Moreover, given the multi-activity and multi-sectoral nature of tourism, the tourist product shows a stark contrast to the traditional private goods model. Pure public goods or some sort of mixed goods possibility, perhaps an impure public good, perhaps a private good with some jointness characteristics, usually occur in tourist market. This mixture of goods cannot be encapsulated by a market system[3]. Thus, it should not surprise us that appropriate measures for a sound economic evaluation of tourism benefits will not be feasible for most policies.

In all cases, the extent to which these positive effects will manifest themselves has to be considered in the light of the pressure of tourism businesses on the natural, cultural and socio-economic environments of tourism destinations. Such adverse environmental impacts are caused by over-consumption of resources, pollution and waste generated by development of tourism infrastructure and facilities, transport, and tourism activities themselves. Several of these impacts are, for all intents and purposes, irreversible and uncertain, while in many circumstances the social costs are not charged to the tourist and do not involve marketed goods with prices per unit[4]. This is especially true with regard to tourism based on the natural environment as well as on historical-cultural heritage [RUSSO-VAN DER BORG, 2000].

On acknowledging the fact that unplanned and uncontrolled growth of tourism aiming at short-term benefits often results in negative and irreversible effects on the environment and societies, and the destruction of the very basis on which tourism is built and thrives, questions arise as to whether it is possible to keep on developing tourism in a certain region without having external negative diseconomies, which

[3] From a general viewpoint, SHMANSKE [1991] reviews and criticizes the surprising number of mixed good paradigms that have been offered in the traditional theory of public expenditure.

[4] From the conventional economic perspective, the sustainability issue has at its core the phenomenon of market failure and its correction through 'proper' resource pricing designed to 'value' the spectrum of environmental goods and services [HANLEY-SPASH, 1993; KOPP-SMITH, 1993].

means that such development must be ecologically bearable in the long term, as well as economically viable, and ethically and socially equitable for local communities.

This paper is part of the growing effort to provide a theoretical framework for the analysis of the relationship between environmental and cultural conservation and tourism growth. The core of this analysis is the comprehension of the "sustainable tourism" concept, and the fact that clarity on the subject, and the values and premises that underlie it, is essential if sustainability aims are to be accomplished.

2. Towards sustainable tourism policy.

2.1 The principle of sustainable tourism was proposed as early as 1988 by the World Tourism Organisation, with sustainable tourism "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". Recalling previous declarations on tourism, such as the Manila Declaration on world tourism, the Hague Declaration and the Tourism Bill of rights and tourist Code, the Charter for sustainable tourism approved during the World Conference on sustainable tourism, held in Lanzarote in 1995, underlined the need to develop a kind of tourism that meets both economic expectations and environmental requirements, and respects not only the social and physical structure of its destination, but also the local population.

But what does such a way of understanding tourism development entail? Which are the major consequences of the adoption of a view aimed at ensuring the sustainable use of resources in tourism based on the diversity of opportunities offered by the local economy? From this perspective, it is useful to underline the principal aspects of sustainability when this is referred to the tourism sector [COOPER-FLETCHER-GILBERT-WANHILL, 2000].

The concept of sustainability has a twin valence: on one hand there is the ecological aspect, that is the conservation of the natural equilibrium of all the components of the natural environment (flora, fauna, water resources, etc.); on the other hand there is the anthropological aspect, which could be expressed by the persistence of enjoyment of this environment in spite of growing tourist flows.

It is obvious, at least for the economist, that there is a strong relationship between the two characteristics (ecological and anthropological) of sustainability in tourist enterprise. In fact, the degradation of the weaker components of the natural

environment, especially if it is irreversible, provokes, first of all, a slow down in the development of tourist activity, with substantial consequences at a social and economic level. Such a situation of backwardness and impoverishment will subsequently result in a loss of interest in conservation and good use of natural and environmental resources, which are of great interest to tourists. Added to this there is also a substantial loss even in the financial profitability of the different commercial activities concerned.

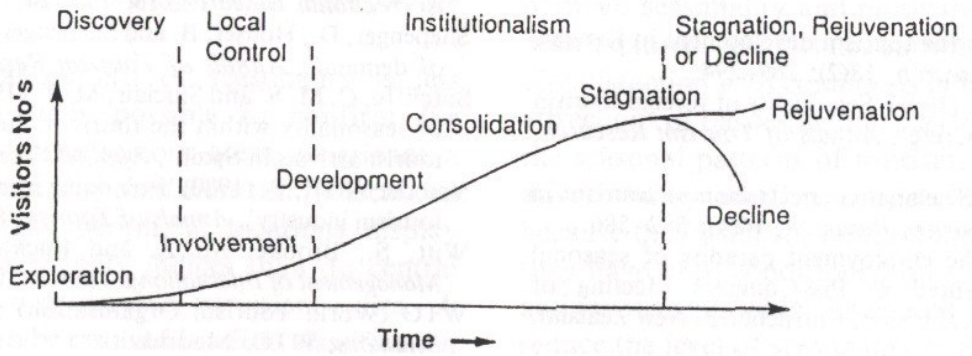
For this sake it is worthwhile underlining how this interaction between environmental deterioration and economic profitability can be considered as the point which lies at the root of the well-known phenomenon of the life cycle of tourist businesses. In fact, this cycle starts off in areas of great value both in culture and in landscape, when the territory is characterised by environmental high quality. As natural, cultural and environmental resources are assaulted by tourist exploitation, sooner or later the territory concerned passes form "luxury tourism" to "cheap tourism", appealing to the masses. The short-sightedness of the public authorities and of private operators induces us to assert that the loss in quality – both of the client-tourist and of the natural environment – may be compensated by the quantity, by growth in the number of tourists, hotels, complexes to host tourists and entertainment places in general.

Very soon the unsustainability of such a strategy oriented towards tourism for the masses, emerges in both its economic and environmental negative consequences. The elasticity of the demand for tourist services – when faced with a reduction in prices – beyond a certain level of decadence of these services and of environmental quality – shows a value which is inferior to the unit and shows a declining trend, with a consequential reduction in the profitability of the commercial tourist enterprises, in general.

At the same time, the congestion created by the influx of a greater number of tourists determines a degradation in the environment, in the landscape, in the flora and fauna while transport and restaurant services reach levels which are incompatible with an efficient running of the businesses from an economic point of view. When such a situation reaches drastic limits, the whole region – from an initial situation of a sort of "heavenly isolated paradise" which justified "luxury tourism" – is hit by phenomena of tourist desertification, with serious situations of environmental deterioration, which are frequently irreversible, which are linked with bankruptcy and the flight of the more

qualified tourist operators. The five stages of BUTLER's life cycle theory[5] clearly expresses the tourist area evolution (Figure 3).

Figure 3 – Hypothetical tourist area life cycle.



The first stage, *exploitation*, is characterised by small numbers of adventurous visitors, simple facilities, unspoiled natural, cultural and environmental resources, and undisturbed local communities.

In the next stage, *involvement*, the local community is engaged in tourism activities: facilities and infrastructure are built; different agencies, authorities and organisations are involved in the development, management and implementation of tourism industry; the tourism market is defined and maintains a balance with other economic activities.

By the *development* stage, the area is experiencing an exciting and dynamic period of growth and evolution. The destination is clearly defined: attractions have been developed, and planning tourism is undertaken as part of overall development plans for any area. Large numbers of new visitors continue to arrive, fuelling growth and, at peak periods perhaps equalling or exceeding the numbers of local inhabitants.

In the *consolidation* stage, the volumes of tourists is still increasing, but a declining rate. The destination is now strongly marketed and tourism is seen as a main instrument for regional and local economy, with an identifiable recreational business district containing the major franchises and chains.

[5] There is no doubt that the tourist area life cycle is a scion of the product life cycle. Since BUTLER [1980] expressed his original views on destination development, life cycle theory has been widely recognised as a conceptual framework for analysing the historical progression of resorts from a vide range of perspectives [COOPER, 1994; BUHALIS, 2000]. In this context, LUNDTORP-WANHILL [2001] test the life cycle model and in doing so show how it is possible to mark precisely when the BUTLER's five stages of the life cycle theory occur, though in practice, the transition from one stage to another is unlike to be so clearly observed .

In the *stagnation* stage, the highest number of tourists is achieved. The tourist area is no longer attractive and fashionable. It relies on repeat visits and business use of its extensive facilities and major efforts are needed to maintain the number of visits. The destination may by now have serious problems with wastes and other environmental, cultural and social costs.

AGARWALL [1994] has suggested a *post-stagnation* phase where a range of possibilities exist. These essentially include*: continued decline*, in which visitors are lost to newer resorts and the destination becomes dependent on a smaller geographical catchment for daytrips and weekend visits, or different forms of *rejuvenation*, in which the area still remains as a tourist resort but deciding on new uses, new customers, new distribution channels and thus repositioning the destinations .

2.2 The hypothesis on the lifecycle of tourist businesses finds numerous and punctual empirical proofs, both in OCSE countries, especially in various Mediterranean regions, even Italian ones, and in developing countries. For the latter, the principle that "environmental conservation is a luxury which the poor cannot afford" frequently applies, in dramatic terms. Recent studies, carried out by international organisations, have pointed out that in the case of developing countries, the tourism sector is frequently in conflict with other production sectors and, above all, with traditional agriculture, in the allocation of scarce environmental resources, particularly water resources.

However, tourist desertification is not necessarily the inevitable result of the life cycle of tourist activities, not even in those countries where extreme poverty and lack of alternative activities can constitute an alibi for a short-sighted and greedy exploitation of environmental and natural resources.

Sustainable tourism is not only a utopian choice, or anyway a privilege, only for the elite, as it was in the past centuries: even in the era of globalisation and of tourist activities on a wide scale tourism sustainability is a realistic objective for economic and environmental policies. However, it is worth underlining that the compatibility of the growth in supply of tourist services on one hand with environmental conservation on the other will be notably conditioned by the particular solution given for a series of complex problems, briefly stated hereunder:

Level of concentration of tourist business: the more the supply of tourist services – with both fixed and mobile infrastructures which condition it – is concentrated in the

territory, the higher the risk of damages to the environmental equilibrium [QUERINI, 1999]. Such damages will get worse, especially in developing countries, if the pressure of tourist services tends to add up to the pressure on environmental resources of other productive businesses (agriculture, mining, fishing), which already critical in those regions of a particular country, which are highly populated and industrialised. Generally speaking, these costs of congestion will result much higher than the possible economies of scale which can actually be reached in the services and in the infrastructures with the concentration and the spreading of the tourist business themselves. Therefore, both in those countries which are economically advanced, but above all in developing countries, usually it is to be hoped that a high level of decentralisation of tourist activities is achieved through the utilisation of advanced "clean" technologies, such as biological agriculture, solar energy and the recycling of wastes.

Integration with the local ambient: a rigorous conservation of the natural environment, thanks to the maintenance of technological, cultural and traditional values, which have some times been perpetuated for centuries in the local populations, which it usually seems hard to reconcile with an influx of a massive kind of tourism, inevitably oriented towards a cultural genocide with a show off of its hedonism and its capability of consumption. The defence of the natural environment, especially in poor countries, seems to be linked to the conservation of the traditional culture, in its various expressions: the use of agricultural land, water control, eating habits, social and housing architecture, use of free time. The creation of a new supply of tourist services should not only respect these local cultural customs but also increase their potentials with the aim of launching a fruitful dialogue between the various elements: the local resident, jealous of his own cultural originality, and the foreign tourist, who is keen on discovering new places and different life styles, in the hope of a tourism that is more responsible towards our common heritage.

The contribution that a far-sighted strategy of a growth in tourist supply can directly offer towards the conservation of the environment is not to be neglected, especially in developing countries, which are to-day the most threatened by an irreversible ecological degradation. Moreover, tourism can indirectly induce growth in the awareness of the public opinion on great ecological issues, having a world wide dimension, both at an international and a national level.

The solicitations coming from both the public opinion and the scientific community show that the task to draw out and accomplish the technological instruments which are

necessary for the conservation of natural and environmental resources differ greatly form one country to another. From various research projects carried out by international institutions one comes to the conclusion that major environmental problems crop up at a local level, and have to do mainly with the elimination of toxic or dangerous wastes, as well as water pollution. Instead, at a global level, public opinion is particularly worried by the progressive disappearance of forests and by sudden climatic changes.

Relationships between tourism activities and technological innovations: any "ecological scenario" one may assume for the coming decades it is extremely probable that each country will have to face phenomena both of scarcity of certain natural resources (natural and forest resources) and above all, air and water pollution. This means that such problems will no longer be on a national scale but on a world wide scale. At this point a crucial question crops up: will scientists and those involved in technology have enough common sense and motivations to solve the problems that the ecological scenario now offers in an urgent and undelayable manner?

A historical analysis of technological changes does not reply to the worrying question if scientific progress should proceed in a completely independent manner with respect to the economical sphere – and only subsequently it could become a source of productive innovations – or if the casual process is actually moving in the opposite direction. In the sense that the autonomous evolution of the production of goods and services – to satisfy the necessities of mankind, expressed on the market through prices – is prosaically the real driving force of scientific and technological discoveries.

However, whatever the most probable interpretation of its role may have been in the past, it now seems ever more evident that, in the present situation, public opinion and economic agents put their trust especially in science to gain a tranquillizing solution for the emerging scarcity of natural and environmental resources. The performances of science – especially in the last decades – seem to be reassuring as far as its capability of overcoming the challenge that such emerging scarcities present. There is, however, an evident risk: that technological solutions, imposed at an international level, in the name of presumed cultural primates and arrogant political imperialisms – may lack in flexibility and the promptness necessary to be able to face situations which differ greatly on a world wide scale.

The general trust in the capability of the scientific community to overcome the scarcity of natural resources – above all if it is capable of overcoming the national and scientific perspectives - points out, however, the risk that at the end one meets another

limit, the only one which it is really impossible to overcome for the survival of mankind: the lacking cultural and ethical capability of respect for the poor and those who are "different", their dignity and their right to a creative and decent survival.

3. Concluding remarks.

Tourism, as a world-wide phenomenon, touches the highest and deepest aspirations of all people and it is also an important element of socio-economic and political development in many countries. Governments, other public authorities, public and private decision-makers whose activities are related to tourism, and tourists themselves, consider it a priority to protect and reinforce the human dignity of both local community and tourists. Because of this all these agents have registered a growing concern in sustainability as a guiding principle to allow the integration of economic development with environmental and social aspects within tourism policy and strategy.

But the incorporation of sustainability in tourism development is not a self-evident issue but a politically contested one, if the different interpretations of the concept which have been identified are taken into account. These differing, sometimes conflicting, interpretations are not accidental, but rather the outcome of particular ideologies, varied disciplinary backgrounds, value systems and vested interests. Despite the wide range of varying definitions, at its core tourism sustainability lies :strong emphasis to three simple concerns:

- the need to avoid the uncontrolled destructive degradation of the environment and the loss of local identity, while respecting the fragile balance that characterises many tourist destinations, in particular environmentally sensitive areas;
- the need to actively pursue and strengthen the quality of life and equity between present generations;
- the exigency not to reduce the opportunities offered to future generations.

If the core elements of tourism sustainability - ecology, economy, and equity - are to be taken into consideration for balanced strategies, there are many gaps in our knowledge that need to be filled if we are to be successful in controlling tourism in a way that puts this important economic sector onto a sustainable development path. Several analyses have emphasised this point. Nevertheless, there are no definitive answers, particularly in the field of fairness and distributional justice of tourism options. This paper has identified issues for future consideration, especially in view of making

tourism become compatible with the conservation of major ecosystems and with the preservation and good use of historical-cultural heritage.

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