
Sustainable Tourism – Addressing the Impact of Sustainable Tourism Processes on Vulnerable Eco-systems through Integrated Governance Structures

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From the *World Summit on Sustainable Development* to the current forest fires in Southern Europe, the theme of good governance has emerged as the means of managing vulnerable ecosystems sustainably. Since its inception in 1992, The UN's Agenda 21 process has always maintained that *good governance is essential for sustainable development*. Governance has been defined as:

“The framework of social and economic systems and legal and political structures through which humanity manages itself”¹.

The UN's own report on the recent World Summit on Sustainable Development made the point of emphasising this in its introductory remarks. Good governance produces sound economic, environmental and social policies run by solid democratic institutions that are responsive to the needs of the people. This in turn develops improved stakeholder activity and effectiveness, which brings about improvements to the economic and social infrastructure, whilst respecting and managing natural eco-systems. In this manner good governance provides the basis for sustained economic growth, poverty eradication, environmental equilibrium and employment creation

The tourism industry, one of the great economic engines of the 21st Century globalisation thrust, has attracted a lot of attention for its potential to transform landscapes and lives on a global to local basis. Positive and negative manifestations of tourism development processes have a highly visual impact, reaching all sectors of society. A call for the integrated governance of the sector has been made in order that its development potential is harnessed for the good of the people and places shaped by the sector.

Sustainable tourism, with its sectorally cross-cutting influence on agro-forestry, transport, energy and industry, is seen as a crucial component in the management of protected areas.

To demonstrate the immediate applicability of this perspective, the audience will be presented with a proposition to establish a pragmatic European level Knowledge Network to assist in the development of good governance structures for European landscapes affected by the summer fires of this year (2003). Using the case of the summer fires in Monchique, Southern Portugal, a good governance process has been formulated to focus coherent and effective management of the recuperation process.

¹ - “Governance for a Sustainable Future” World Humanity Action Trust of Rosalie Gardiner . *The summit process. Moving towards sustainable development governance 2002*

Ist Discussion Frame:
General Principles of SD applied to Specific Sectoral Issues
• **Law of Sustainable Development - 12 principles**

The Rules of the Globalisation Game

A 10 year update on the definition of sustainable development for the World Summit on Sustainable Development – Johannesburg.

From the *Brundtland* Definition to the *Law of Sustainable Development*.

'In contrast to ruthless development, sustainable development will be qualitative and controlled. The control will be a system of logical coherent rules (algorithms) whose purpose is to secure the natural basis for qualitative development, in other words the survival of the ecosystems. A further aim is the stable co-evolution of human systems and ecosystems. That will be the order of a sustainable society which will be stable and lasting'.

The 12 Rules of the Law of Sustainable Development

- *The first rule of public environmental order establishes the obligatory nature of this control system aimed at the evident general good not only of the present generation but those to come: sustainable development must not be abandoned to market forces but must be a responsibility of the state.*
- *The second rule of sustainability requires all public policies to be harmonised and prohibits any further reduction or degradation of natural, cultural and social capital, because even what has been left after ruthless development may well not be enough for survival.*
- *The third rule demands respect of the carrying capacity both of human systems and of ecosystems, to prevent the construction of still-born, hypertrophic human systems which drag ecosystems down towards their destruction.*
- *The fourth rule demands correction of that error where this is still possible, i.e. the restoration of disturbed ecosystems so that the reduction of natural capital will be averted.*
- *The fifth rule enjoins the protection of bio-diversity in order to preserve the stability (equilibrium) of ecosystems.*
- *The sixth rule, that of common natural heritage, strives to secure for the sake of all the vital nucleus of natural capital, i.e. untamed nature where it exists and the ultimate reserve of life.*
- *The seventh rule demands restrained development in fragile ecosystems.*

- *The eighth rule, that of spatial planning, calls for the overall planning of balance between human systems and ecosystems, so as to control and maintain their stability and to improve the quality of the former.*
- *The ninth rule, that of cultural heritage, is interested in the stable continuation of human systems and the qualitative (spiritual) character of development.*
- *The tenth rule, that of sustainable urban environment, strives to reverse the advancing decay of modern cities, and to restore quality of life therein.*
- *The eleventh rule, that of the aesthetic value of nature, also serves qualitative development and the satisfaction of man's aesthetic needs, and*
- *The twelfth (and last) rule establishes a sound system of values and environmental awareness in people, as the real guarantee of the entire control system.*

The system formed by these general principles is complete because it covers all the fundamental problems of relations between human systems and ecosystems. On the basis of those principles other, more specific ones can be drawn up where necessary for the solution of specific problems. By respecting these principles, people are free in future to impart quality to their development, on the one hand by controlling its natural cost and on the other hand by the equal satisfaction of material and intangible values'.

Adapted from 'The Law of Sustainable Development' M.Decleris DG Environment 2000.

The full document is available on

<http://europa.eu.int/comm/environment/law/sustlaw.pdf>

How to Interpret the 12 Rules

The *Law of Sustainable Development* elaborates 12 fundamental rules of development that create the conditions for sustainable human activity. These twelve rules move the debate on sustainable development further than the existing *Bruntland* definition of the term, which has been subject to much political interpretation. The 12 rules represent a systematic scientific and legal analysis from which to define sustainability, and thereby provide clear guidance for any Agenda 21 programme, and the consequent understanding of what is and what is not sustainable development.

The first two rules address the way to engineer the integration of our human systems and our environmental ecosystems. They focus on the management of the three pillars of sustainability via tripartite, transparent systems of governance for commerce and social organization (*emphasis on economic dimension of sustainable development*)

Rules three to eight provide guidance on the immediate preservation of the natural resource base to ensure economic, environmental, and social longevity (*emphasis on environmental dimension of sustainable development*).

Rules nine to twelve address social needs, focusing implementation processes on quality of life and education. (*emphasis on the social dimension of sustainable development*).

From these general system rules, more specific rules for thematic and sectoral activity can be derived in order to guide stakeholder activity at every territorial level.

Relationship to Agenda 21, the Rio Declaration and the Earth Charter

The law of Sustainable development complements the [Rio Declaration www.un.org/agenda 21](http://www.un.org/agenda21) and the [Earth Charter www.earthcharter.org](http://www.earthcharter.org) by providing a systemic* description of Agenda 21, and then defining a set of engineering rules that should be followed if the objectives of the Declaration and the Charter are to be met. The Declaration and the Charter provide the aims and objectives of Agenda 21, whilst the 12 Rules provide the legal and scientific guidance for their implementation.

**(i.e. a description that starts with the overall picture of our large-scale planetary system and systematically elaborates a) its components b) their interaction.)*

Monitoring Globalisation

The 12 Rules of the Law of Sustainable Development establish the difference between what is sustainable and what is unsustainable. They therefore provide the basis from which to develop and evaluate all Agenda 21 monitoring, indicator and reporting systems. The rules establish a methodology for tracking globalisation in a two way process.

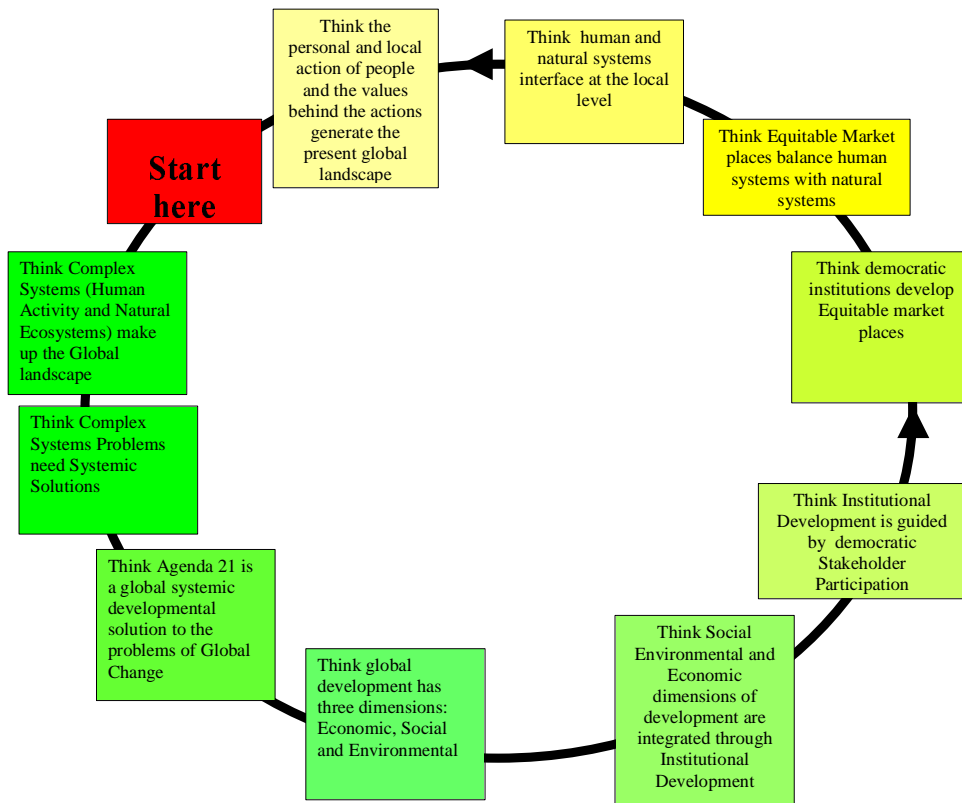
- 1) **Monitoring territorial/spatial changes**
- 2) **Monitoring stakeholder behavior**

Sustainability Thinking for Implementing Agenda 21

Sustainability Thinking for Implementing Agenda 21 requires that we conceive the current global landscape in terms of **complex systems** (Human Activity and Natural Ecosystems). That these systems are in a state of constant change, moving from a state of balance to imbalance, leads to the occurrence of **complex systems problems** which need **systemic** solutions. **Agenda 21 is a global systemic developmental solution to the problems of Global Change.** This global developmental solution has three dimensions: *Economic, Social and Environmental*. These dimensions of development are integrated **through Institutional Development**, which in turn is guided by **democratic stakeholder participation**. Democratic institutions develop **equitable market places**, in **which human systems are balanced with natural systems**. Human and natural systems **interface at the local level**. Finally, the **personal and local action of people** and **the values behind these actions** generate the present global landscape.

The diagram below expresses this Agenda 21-based logical sequence of sustainability thinking.

Sustainability Thinking for Implementing Agenda 21



2nd Discussion Frame: Tourism Supply Chain Model

Tourism Sector Footprint - The Economic Contribution of Travel & Tourism

WORLD	Estimates for Year 2001	% of Total	Forecast for Year 2011	% of Total
Travel & Tourism Industry				
Gross Domestic Product	US\$ 1.381.5 billion	4.2 %	US\$ 2.654.4 billion	4.2 %
Employment	78.183.400 million	3.1 %	99.321.700 million	3.4 %
Travel & Tourism Economy				
Gross Domestic Product	US\$ 3.497.1 billion	10.7 %	US\$ 6.958.3 billion	11.0 %
Employment	207.062 million	8.2 %	260.417million	9.0 %

European Union	Estimates for Year 2001	% of Total	Forecast for Year 2011	% of Total
Travel & Tourism Industry				
Gross Domestic Product	US\$ 397.3 billion	4.8 %	US\$ 784.7 billion	4.9 %
Employment	7.7 million	4.9 %	8.8 million	5.3 %
Travel & Tourism Economy				
Gross Domestic Product	US\$ 1,017.2 billion	12.2 %	US\$ 2,063.2 billion	12.9 %
Employment	19.3 million	12.3 %	22.9 million	13.9 %

Source: WTTC Research 2001

Europe, with the greatest diversity and density of tourist attractions, is the most visited tourist region in the world. Two million tourism enterprises in the European Union account for about 5 % of both GDP and employment, i.e. more than 8 million jobs. Tourism also generates a considerable amount of activity in other sectors.

According to the World Tourism Organisation, Europe is the most visited tourist region in the world. Since 1980 the tourism boom has seen international arrivals in European destinations double reaching their current level of 400 million out of a total of 692 million arrivals world-wide. The signs are that this phenomenal sector growth is set to continue - in a fiercely competitive global market: the volume of European tourism is expected to double again over the next 20 to 25 years. Among the 380 million EU citizens, some 530 million tourist trips are made annually, excluding day trips, for which they travel an estimated total of nearly one trillion (1012) passenger-km. In the 15 Member states, all this movement of products and people is conducted by over two million businesses, mostly small and medium-sized enterprises, providing employment for 7.7 million people, a figure estimated to rise by approximately 15 % over the next ten years. Large corporate enterprises, particularly operating at an international level, manage a significant proportion of this volume of trade, and in 2001, the tourist industry delivered almost 5% of GDP in Europe, a figure which rises to over 12% when the wider tourism economy is taken into account

A Systematic Overview of the Tourism Sector Process

In order to manage the growth in size and complexity of the sector, it is useful to gain an overview of the main components of the tourism process, ie

- the tourism supply chain,
- destination development and,
- the public and private administration of both these factors.

Each component contains its own set of related challenges and objectives.

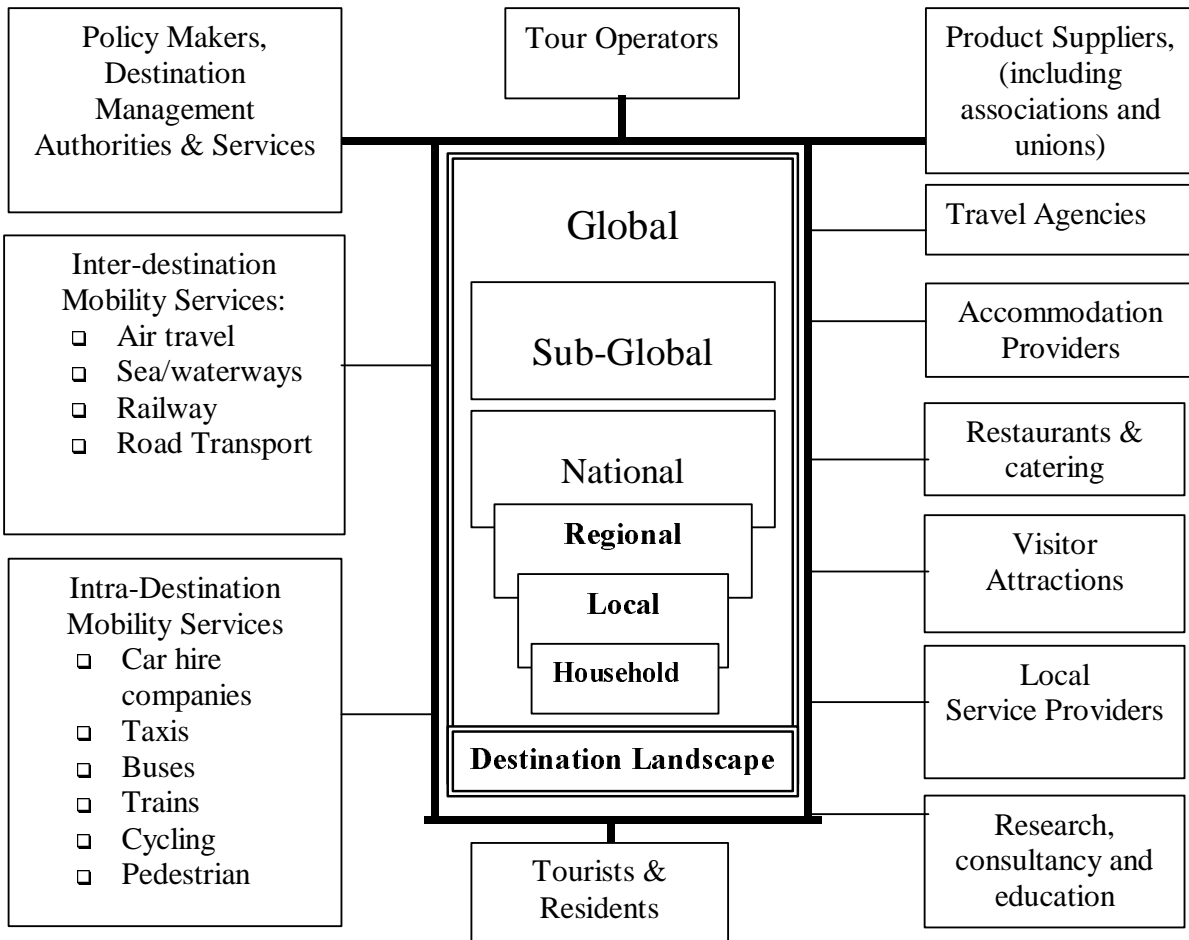
Supply chain management involves clear policy-making covering issues such as: developing corporate social responsibility; establishing a market-based system that de-links economic profit from environmental and social costs; establishing a level playing field for competition; developing adequate employment and training opportunities; implementing quality management for the production of tourism goods and services; developing the use of certification systems to promote of sustainable production and consumption patterns; and ensuring the implementation of new technologies where appropriate.

In order to establish a pattern of ***sustainable destination development*** it would be necessary to consider how to: preserve the regional diversity of European tourism; ensure quality development is an objective in tourism destinations; protect, conserve or restore European coastal zones, protected areas and cultural heritage sites; consider community well-being in tourism destinations; and promote sustainable inter- and intra- destination mobility.

Objectives in the ***good governance of both the tourism supply chain and destination development*** involve: ensuring overall coherence in the administrative chain of responsibility; global implementation and monitoring of multilateral environmental agreements and sustainable international trade policies; facilitating the development and adoption of corporate responsibility reporting and triple bottom line accounting mechanisms in both the public and private sectors; integrating sustainable tourism planning and fiscal support measures into Member State overall economic environmental and social development strategies; integrating national and regional sectoral planning departments; using inter-disciplinary decision support and research systems; the extension of Local Agenda 21 programmes specifically for tourism destinations; the design and use of supply chain and destination development monitoring and indicator systems; and ensuring citizen participation in sustainable development both as consumers and in the work place.

Tourists, residents, destination managers, SMEs, corporates, and public administrations are all involved in realising these objectives. Many of these stakeholders have already responded to the challenges, and in the process a body of sustainable development information, policy tools and best practices are in existence. Some of these tools need further development. In particular, there is an urgent need for: reliable carrying capacity analysis techniques; clear procedures for reporting on structural fund expenditure; elaboration of user-friendly sustainability reporting mechanisms for enterprises and public administrations; and the development of integrated statistical monitoring and indicator systems to provide policy-relevant information to manage tourism supply and demand

The Tourism Supply Chain Model



Adapted from The Tourism Sustainability Supply Chain Model 2002 © *Instituto Português de Ecologia* 2001 in the STOA Report - Improving Support Measures for Sustainable Tourism Ecotrans 2002

Tourism Sector Probematics.

The consequent social and environmental impacts of the tourism economic phenomena are now clearly visible in the shape of markedly transformed European regional economies and landscapes, in which the natural and cultural patrimony has undergone extensive alteration. The large sales volumes, low profit margins and rapid turnover that characterise the industry have contributed to a lack of responsibility on the part of all stakeholders with regard to broader socio-economic and environmental concerns. In a range of destinations - in particular some coastal zones in the Mediterranean, islands such as Mallorca, some Alpine mountain resorts and certain cities such as Venice - have all experienced the negative effects of unsustainable development. Furthermore, there is a growing tension between the development of European transport infrastructure and the mobility requirements of the industry. Similarly, tourism land-use requirements in relation to protected areas, local cultural identity and local resident needs have generated further tensions in the economic-environmental-social sustainability framework at a regional level.

Tourism is also mainly a seasonal business, linked both to the weather and the cultural and socio-economic rhythm of everyday life. From the point of view of enterprises, there is very often only a small window of opportunity to make profits, and this period is one of intense activity. High season operation caters for peak demand, and this can overcrowd a destination's carrying capacity. Off-season operation leaves over-capacity in both infrastructure and enterprises, mitigated by seasonal employment of the work force and seasonal product supply and demand patterns. This in turn leads to difficulties in attracting and maintaining the tourism work force, and difficulties for tourism sector employees themselves.

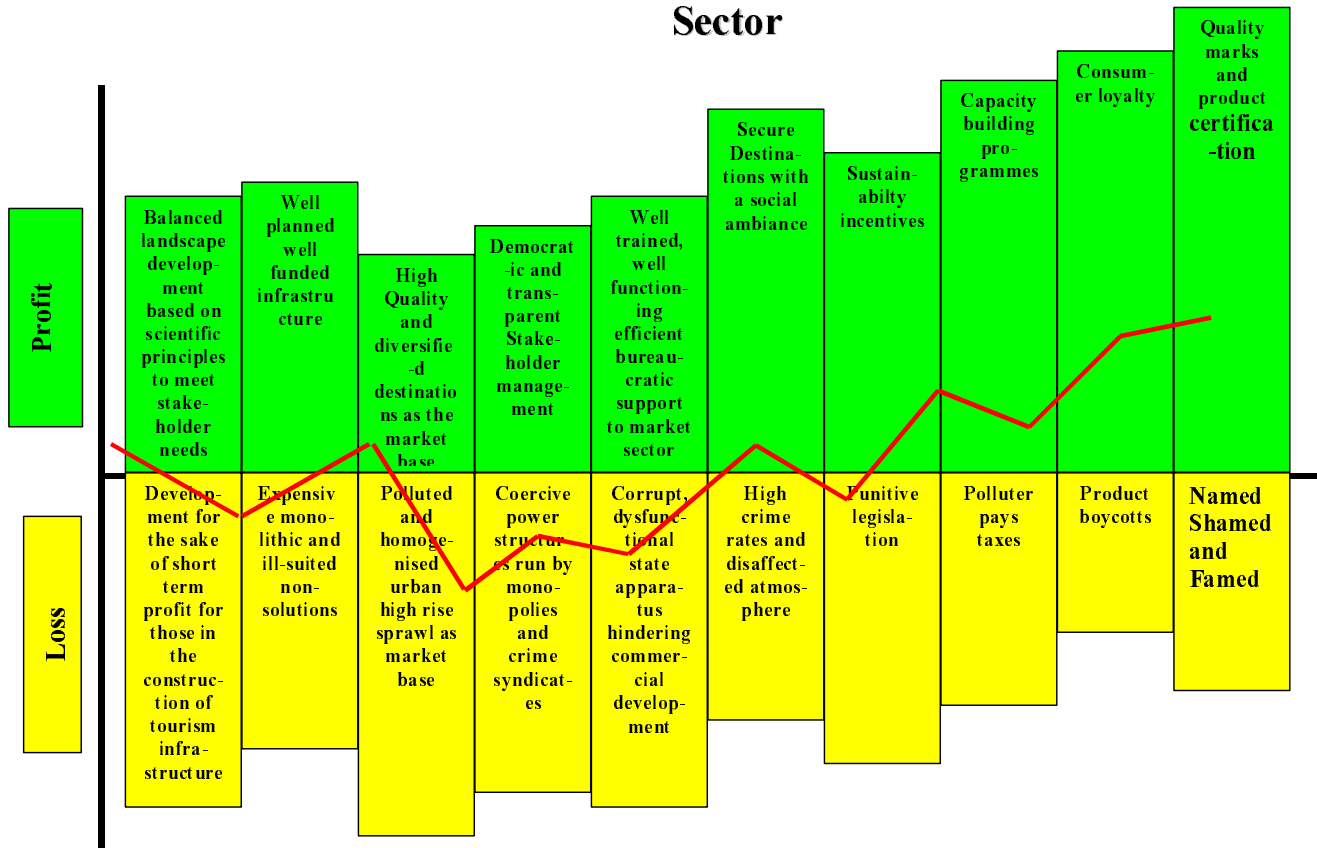
The large-scale but fragmented and sectorally cross-cutting nature of the industry, the high volume-low profit ratios, rapid growth in demand, seasonal variation and inadequately-skilled workforce all constitute a set of socio-economic factors that characterise an unsustainable pattern of production and consumption. Consequently tourism often has a negative environmental and cultural impact, yet is continued as it is economically rewarding – in fact it is often seen in the new European single market as a motor of modernisation and development at a regional level. However, since a large part of the tourism product is actually based on environmental and cultural quality, the industry is undermining its own income-generating resource base. *Therefore, the central challenge that an Agenda 21 for the sector has to address is: How can the expected increase in demand and the jobs that come with it be managed in such a way as to avoid further environmental and social degradation?*

Policy Tools

To counter these negative trends, several tourism-specific initiatives have already been undertaken. At the global level an *Agenda 21 for the Travel and Tourism Industry* was drawn up in 1996 by the World Travel and Tourism Council, the World *Tourism Organization* and the *Earth Council*. The *UN Commission for Sustainable Development* passed the **Tourism and Agenda 21 1999** resolution, and followed up with the *Johannesburg Plan of Implementation*. *International Guidelines for Sustainable Tourism* have been produced by the *United Nations Environment Programme* and the *Convention on Biological Diversity*. The *World Tourism Organisation* has also launched the *Global Code of Ethics for Tourism Businesses*, and UNEP have co-ordinated the *Tour Operators Initiative*, which aims to develop voluntary guidelines for *Corporate Social Responsibility* reporting. At a national level many member states have drawn up *National Sustainable Development Strategies* that include tourism, or more specific tourism sector national plans. Regionally, several tourism *monitoring and indicator system prototypes* are being designed and tested. At a local level, *Local Agenda 21* has been identified as a key tool to manage a sustainable tourism process. Thematically, a number of initiatives such as the *European Charter for Sustainable Tourism in Protected Areas*, *eco-labelling schemes* and the *exchange of best practice* have been developed by a variety of stakeholders.

Moreover, at the EU level and in the framework of the SDS strategy, a series of initiatives have taken place in other sectors that affect tourism. *The Better Regulation Package*, the *6th Environmental Action Programme*, the *White Paper on Transport*, *eEurope 2005*, the communications on *Corporate Social Responsibility* and *Integrated Product Policy*, and the *Multi-annual Programme 2001-2005 on Enterprise and Entrepreneurship* are just some of the numerous EU initiatives that have a bearing on the tourism sector.

The Business Case for an Agenda 21 for the European Tourism Sector



Progressive Implementation of Agenda 21 for the European Tourism Sector

3rd Discussion Frame:

Monitoring, reporting and up-dating

The necessity of systematic monitoring and evaluation

The importance of monitoring systems for Agenda 21 cannot be overstated. The complex system of multi-level, multi-stakeholder socio-economic activity and its consequent effect on the environment and people requires both a broad overview and attention to detail. Monitoring and indicator systems can be envisaged as the nervous system of the sustainable development process. Just as living beings evolved sensory systems to measure the heat or dryness of the body, detect illness, power motor reflexes etc,.. so in the same manner a monitoring and indicator feedback system is necessary for the functioning of the sustainable development process. The more refined the nervous system, the more intelligent the response of the overall system. The indicators provide the intelligence for the decision-support systems for integrated management of sectoral networks. Their development and application is only made possible by the current sophistication of information technology.

Furthermore, one of the key functions of sustainability reporting, evaluation, monitoring and indicator systems is that they ensure that sustainable development does not become the ideology of any particular political party. Sustainable development is a scientific and legal process which sets the political agenda, which should in turn manage the systemic harmony of economic development, social cohesion and environmental protection. Its fortunes should not depend on the support of one type of political party, and thereby suffer from the short term cyclical vagaries of political agendas.

Stakeholders are guaranteed a transparent governance process and reliable quality assurances about tourism destinations, good and services through the process-performance indicator systems, the certification schemes, and the impact assessments which make up the tourism sector monitoring system. Monitoring the implementation of Agenda 21 itself will incorporate these and other tools in the overall cyclical review that should ensure the fulfilment of the strategic objectives.

Monitoring improvements in regulation of the tourism industry

At the European level, the follow up to the Sustainable Development Strategy focuses on the Better Regulation package². The application of multi-level governance - both horizontally (within the European Union services and institutions) and vertically (from European to local level governance), and the application of multi-stakeholder governance (public authorities, businesses and other groups in civil society) ideally suits the Agenda 21 process.

Management of the system to monitor Agenda 21 implementation

In the *Tourism and Employment* process, working Group D's recommendation's included the establishment of a specific 'Committee 21' and a European Sustainable Tourism Observatory to manage and monitor the implementation process. Using, expanding and institutionalising the existing European level stakeholder process currently managed by DG Enterprise would be a means of achieving this. The development of this multi-stakeholder management body would then conform to the participatory and transparent architecture of open governance.

² http://europa.eu.int/comm/governance/index_en.htm

The Agenda 21 *Governance of the Tourism Sector Report with its Collective Implementation Calendar* and road map would be the main organisational management and monitoring tool of the Committee, with the Observatory providing the technical data. Here a clear link to EUROSTAT and the EEA, using their proposed integrated data construction process is a key component of the monitoring process. This would meet the working group D recommendation that at the European level there should be:

- ◆ *The establishment of a frame of reference and set of choice indicators for the environmental impact of tourism development in Union countries*
- ◆ *Regular publication of a “European barometer of sustainable tourism”*

Specific sustainability impact assessment procedures.

However, the overall monitoring of Agenda 21 implementation requires that specific processes have their own monitoring reporting and evaluation systems. These specific process feed back into the overall process. Policy making in all areas, including land use, taxation and juridical processes, will be based on these systems. **Again, Group Ds recommendations point out that there should be** at national and mainly regional and local level the establishment of *tourism development monitoring centres* to manage monitoring and indicator systems for both the supply chain and destination development.

These centres should act as support and co-ordination desks to establish a European wide network of monitored tourism destinations. Their work would be based upon a standard monitoring and evaluation tool kit for multi-level, multi-stakeholder management of the tourism supply chain and European destinations.

Tourism Supply Chain Monitoring

Tourism Satellite Accounting (TSA) provides valuable information on the structure and performance of the tourism economy. This methodological tool analyses in detail all the aspects of demand for goods and services associated with the tourism sector. As such it builds up a realistic picture of the economic supply chain that provide the visitor experience. TSAs are still in developmental stage, and require further definition. In particular, European tourism would benefit from TSA development that could portray pictures of regional economies as well as national economies.

Equally important are the certification schemes, quality marks and eco-labels that can be applied to each product or service in the tourism supply chain. It was mentioned in chapter 6 that the Integrated Product Policy approach, together with the synergistic development of the Commission’s Information Society e-Europe, e-commerce programmes could create a virtual model of the supply chain in which environmentally-friendly goods and services can be easily identified. This would be the best way to monitor the implementation of certification schemes. Their impact could then be reflected in the TSA data.

Destination Level Monitoring

The destination development monitoring process is the fundamental means of ensuring a sustainable tourism process. It is initiated by a benchmarking exercise that catalogues the socio-economic and environmental resources of the area in question, and then measures the implementation of institutional processes that foster the sustainable development of that area.

These tend to be qualitative indicators, measuring whether specific actions have been taken:- Is an Agenda 21 Programme in place? Has an inventory of green field sites been made? Has a tourism stakeholder forum been established?

These processes and their effect on the destination landscape are then measured by performance indicators, which provide feedback for further policy intervention. These tend to be quantitative figures, measuring objective pressure, state and response data:- How many tourists visit each month? How many beds are available? What is the budget for waste water management? What is the ratio of green field sites to urbanized areas?

The development of a standardized process and performance monitoring and indicator system for European destinations should be a priority of Agenda 21 for European Tourism. Such a system should be flexible enough to conform to local situations, comparable across different destinations and vertically integrated into national statistical data collection systems. In practice, **this approach should concentrate on the methods and tools that could be adopted by destinations *for their own use*, and not just for the purpose of collecting aggregated data. At the same time these systems should be designed to be efficiently aggregated, and spatially comparable throughout Europe.** Such a system should produce core data that can be processed into the language of different stakeholders at all these levels.

Moreover, stakeholders would be guaranteed transparent policy making through the use of process and performance indicator systems that are independently managed or verified by academic and legal institutions. This role for academic and research institutions is a key component of an Agenda 21 approach to European tourism sector management. Monitoring and indicator systems are expensive and complex processes, and their subject matter is partial to political interpretation. The use of existing expertise in academic departments, and student degree programs provides the necessary resources to make Agenda 21-style monitoring a reality. Naturally, such programmes would involve multi-stakeholder governance.

The process and performance monitoring and indicator approach to destination management enables the development of meaningful carrying capacity studies, strategic environmental assessments and sustainability impact assessment. Such tools should be developed in an integrated manner, supported by a systematically developed statistical information system. **First of all, the existing methods and tools mentioned in this section should be assessed and if necessary adapted to measure each type of stakeholder activity relevant to the tourism process. Their integrated development should be reflected in the way Destination Management Systems are structured – these systems are the local technical informatics platforms that unify the multi-level, multi-stakeholder processes dealing with economic, environmental and social development.**

Integrating supply chain and destination management monitoring processes

In addition to supply chain and destination management monitoring and indicator systems, there is a need for a related and comprehensive set of sustainability impact assessment procedures to measure and guide the growth of European tourism. Evaluation and reporting tools belong to both private corporate and public administration procedures. Corporate responsibility reports can be verified at a site specific level by destination monitoring (what company is having what impact where?) and within the supply chain (what company/legislation/event is affecting which products and services?).

In terms of public administration, multi-level governance of tourism sector support processes have specific evaluation and reporting points. Decision-making processes related to territorial interventions should have in-built impact assessment evaluation processes that perform both ex-ante and ex-post reviews of both global budgetary decisions and specific tourism projects at NUTS IV and NUTS V level. Impact Assessment procedures are the main tool, but there is a need to integrate and standardise the use of Structural Environmental Assessments and Environmental Impact Assessments with the Impact Assessment approach. Training in competence and uniformity of approach will be necessary, alongside the development of human resource capacity to do this work on time. Furthermore, the use of these tools should be reference to need to be referenced to destination and supply chain data.

Technical management of the overall tourism monitoring process

DG Enterprise, Eurostat the EEA and the OECD are already in the process of defining a statistical information and monitoring framework for sustainable tourism. **The aim would be to develop and apply the use of statistics for policy-making in a unified manner, delivering the correct monitoring, evaluating and reporting tools to the right stakeholders at each institutional level.**

Which ever stakeholders are involved in developing tourism statistical methodology, they should gear it to the contemporary needs of monitoring, reporting planning and evaluation procedures for a sustainable tourism process. This system would therefore have to take into account the problem areas of the sector (cf Chapter 2) and the strategic objectives (chapter 3).

Eurostat Tourism Statistics Guidelines

The current revision of Eurostat's approach to statistical collection, collation and presentation requires structuring according to the policy-making needs of the EUs Sustainable Development Strategy. A methodological approach which does not recognise the relationship of tourism statistical information to sustainable tourism monitoring and indicator requirements will by design not provide policy makers with the tools or information for evaluating tourism development from the point of view of sustainability, nor enable an effective multi-level policy making processes.

Furthermore, it is questionable whether in all EU countries NUTS III is of a sufficiently precise level of detail to reflect the needs of statistical information requirements of a sustainable tourism process. Aggregation and dis-aggregation of statistical data is an essential component of information provision to stakeholders. Member States can and do develop municipality level data that can later be aggregated for centralised use if necessary.

Finally, although much of the information that the EUROSTAT tourism guidelines suggest is naturally relevant to sustainable tourism, it requires *systemic structuring* to reflect the thematic divisions of sustainability alongside sector and geographical information divisions, as seen from the point of view of different information users. (The elements of this systemic restructuring are provided below). The complexity of this approach is rendered possible by the availability of IT systems, which can take raw data and re-present it according to such thematic, sector and spatial categorisations.

Therefore a full review of the system *from the point of view of benchmarking and monitoring the tourism sector performance* (in the light of the above reference documents) would be

necessary to ensure that the EUROSTAT statistical system meets tourism stakeholder information requirements. Such a review would take into account:

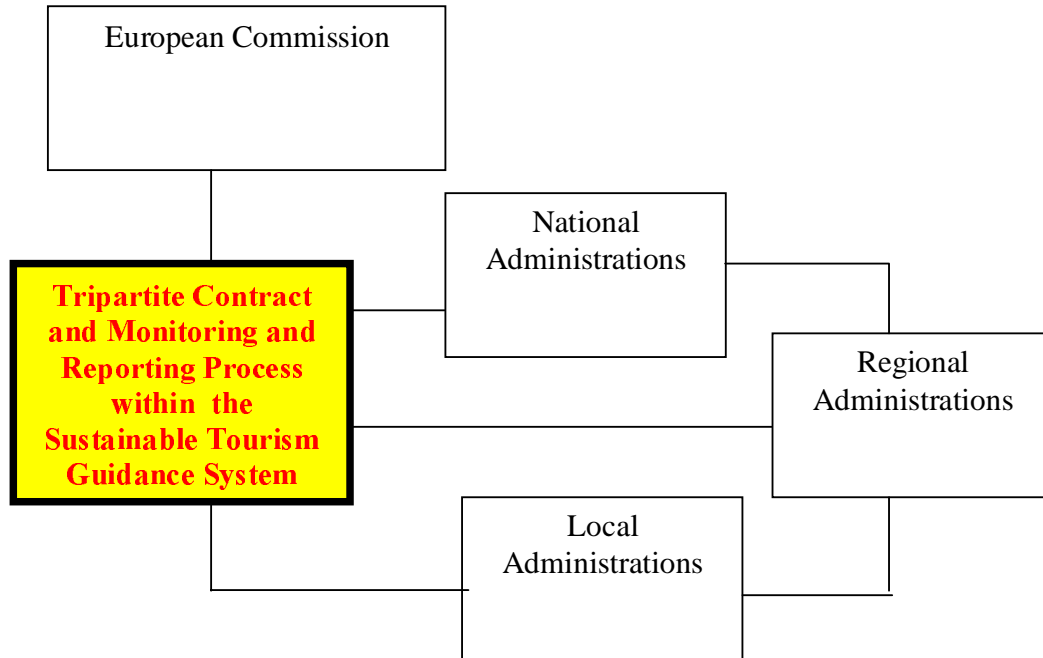
- the organisation of statistical information according to economic, environmental, social and institutional dimensions
- the use of NUTS V to NUTS I data with aggregation and dis-aggregation possibilities to suit multi-level, multi stakeholder governance
- destination management statistics
- inter-sectoral analysis (tourism, transport, industry, energy and agriculture)
- institutional statistical data

Key focus areas:

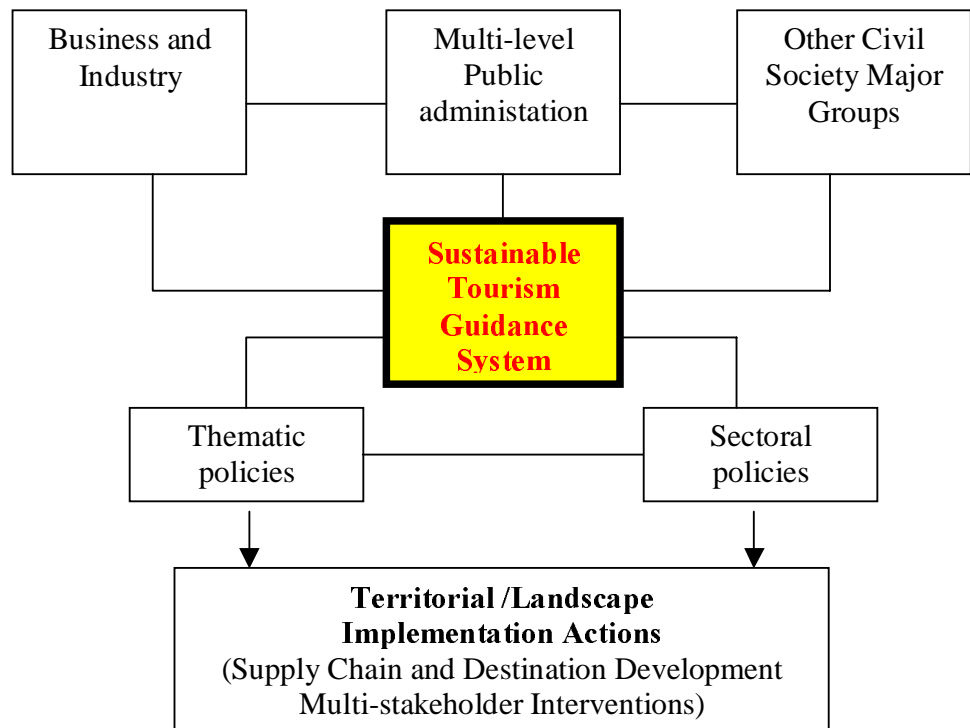
- Integrated Coastal Zone Management
- Integrated Quality Management
- Local Agenda 21
- Destination Management Monitoring and Reporting Systems

4th Discussion Frame: Integrated Governance Models

Multi-level Public Administration Governance Model (managed through tripartite contracts monitored by impact assessment)



Multi-Stakeholder Governance Model of Sustainable Tourism Implementation



The Case of the Western Algarve, Southern Portugal



In the fires that affected Italy, France, Spain and Portugal this summer, an estimated total of 350.000 hectares of forested land was burned down in Portugal, including the main part of Europe's largest remaining natural pine forest in the north, and the richest biodiversity habitat of southern Portugal, where 40,000 hectares burnt in the four *Concelhos* of *Lagos*, *Portimao*, *Monchique* and *Silves*. In the NUTS V level *Fregusia of Marmeleite* alone, 14,000 out of 16,000 hectares of forest and farmland burned.

The fires occurred through a combination of extreme weather, extensive planting of highly flammable pine and Eucalyptus monoculture, abandonment and mismanagement of farmland, criminal intent and ignorance. The damage to the natural eco-systems, to their biodiversity and to cultural heritage of the area has been extensive, and possibly irreversible for the already threatened species such as the Iberian lynx.

The following entities are involved in the development of an integrated governance structure of the region.

- At the local level and regional level, all stakeholders involved in administrative programmes³, organized in an Agenda 21 stakeholder representational grid entering into a collaborative and participative visioning and planning process.

³ The following measures and programs deliver landscape intervention possibilities

- At the national level, government entities including the Ministry of Agriculture the *Concelho Nacional de Desenvolvimento Sustentavel* (CNADS) and the sustainable tourism division of the Ministry of Economy are asked to participate with resources and expertise offered in an effective manner.
- At the European level, the European Commission is called upon to provide a coherent overview of the European dimension, covering member States most affected, namely Portugal, Italy, Spain and France. In particular it is being asked to support local level efforts in these areas in collaboration with national entities and local agents, by initiating a series of working groups in each region that act as information exchanges on best practice for restoration and reconstruction of these areas. These working sessions would aim to bring together inter-disciplinary specialists with public and private sector stakeholders, exchanging visions of what can be done and how to get the resources to do it. In particular the European Commission is asked to prepare a single information resource guide on:
 - What support the European Union offers to stakeholders in these regions,
 - How to implement the good governance (Better Regulation Package) principles in the local process (in particular how to ensure good governance and transparency of funding processes)
 - Capacity building measures for integrated territorial planning and implementation of sustainable development processes.
- The United Nations is called upon to ensure that its post World Summit Agenda 21 implementation programme in the ecosystems affected by the fires are given full resources to ensure the minimization of biodiversity loss and to ensure their rehabilitation. Particular intervention is called upon from UNEP, the CBD and the FAO to offer expertise and resources in collaboration with the European Union and National government in order to deliver implementation at the regional and local level.

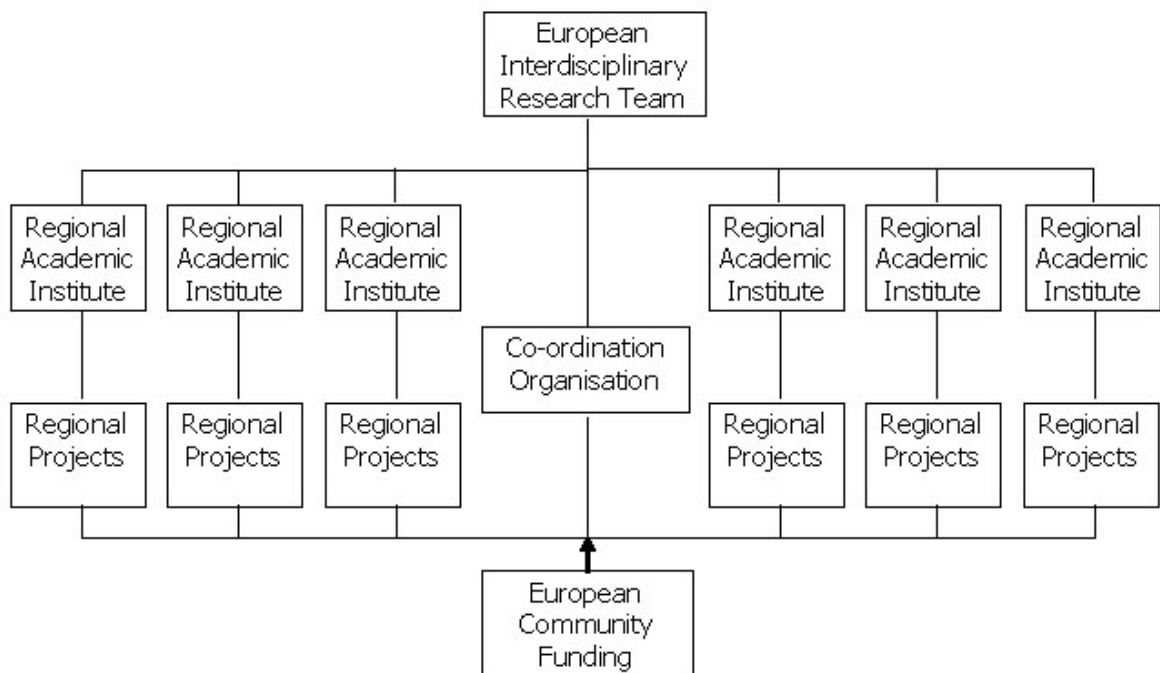
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- Dir, Regional de Agricultura Agro-forestry measures
 - The Natura 2000 Management planning process,
 - The Rede Social
 - Institute de Agua (INAG) Monchique water basin management program;
 - the PDMs of each Camara,
 - and the Regional Development program of the CCR.
 - Ministry of Economy National Tourism plan
 - National Sustainable Development Plan

Synthesis:

A proposition to establish a pragmatic European level Knowledge Network to assist in the development of good governance structures for European Landscapes affected by the summer fires of this year (2003).

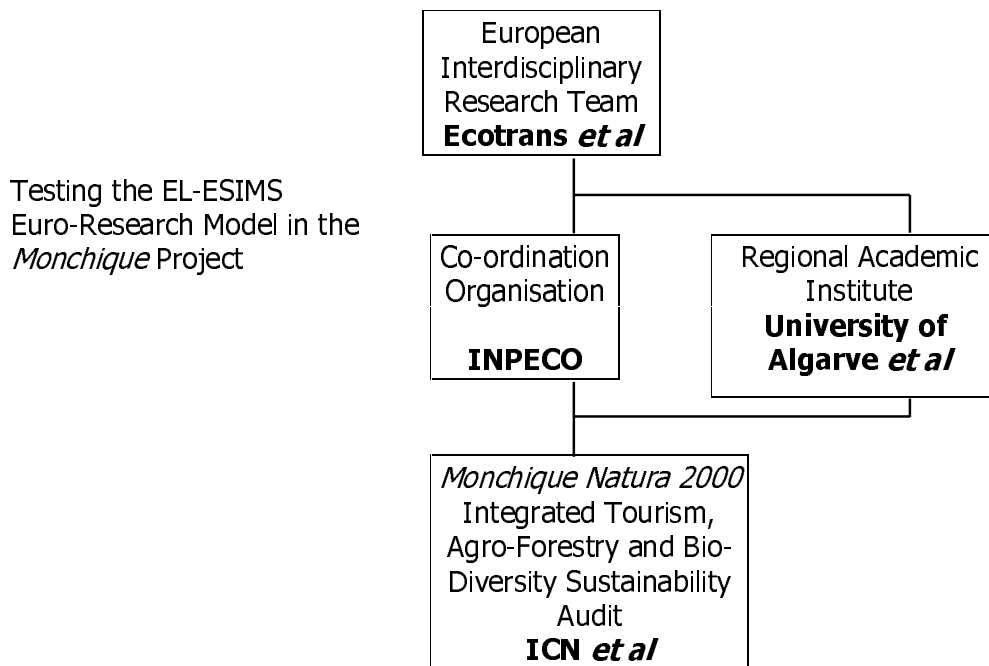
The Euro-Regional Research Model

**European Landscapes -
Ecological Sustainability through
Integrated Monitoring Systems
(EL-ESIMS)**



The Euro-regional research model represents how applied research is made relevant to policy funding decisions, and demonstrates how information and expertise can be methodically and cost effectively transferred across the EC

EL-ESIMS Project Model



Using the 'Coarse Filter' and 'Fine Filter' methodology prescribed by the European Centre for Nature Conservation (ECNC), the starting point of the system would be to generate a European-compatible information framework for the Monchique Natura 2000 zone. The application of the ECNC's 'Coarse Filter' analysis would be the chosen methodological approach. In this process, a Pressure - State - Response Model (PSR) would also prove an invaluable tool to feed into subsequent indicator choice and design. These two processes would need to define a manageable system of different landscape sectors reflecting spatial development issues related to tourism, agro-forestry and bio-diversity. These sectors would have various geo-resolution scales (site specific, local, regional, national, European). The chosen sectors would be presented in a mapped format as a network of inter-related zones.

Secondly, it is necessary to undertake 'Fine Filter' assessment of existing ecological and social tensions such as groundwater pollution, loss of bio-diversity, disintegration of cultural heritage, unemployment, etc,... Traffic flow, air quality, water quality, noise pollution, species density levels, land-use patterns, employment levels, cultural integrity etc,... need to be measured to establish a temporal base-line from which future sustainability can be gauged. The 10 sustainability indicators based around Agenda 21 provide a broad framework from which more local indicators could be detailed.

Thirdly, a selection of solutions-based sustainability projects would be implemented to address the socio-environmental problems elicited by the indicators and PSR model. These projects would test stakeholder awareness of sustainability principles and provide concrete demonstration models for expanding sustainable development initiatives.

These three steps would provide the foundation of a locally specific, socio-ecological index developed in the monitoring system that would ensure that the Agenda 2000 categories

(tourism, industry, agro-forestry, energy and transport) could be objectively perceived in relation to each other.

A further step to link the indicators to government expenditure, would provide policy makers and other stakeholders with an independent assessment system on the total effect of EC expenditure in the region.

The cumulative effect of the monitoring system and project initiatives would be to provide elements of the sustainability auditing process that gives feedback to stakeholders to ensure their actions have a positive impact upon the landscape. In the particular case of the remote and rural nature of Monchique, the current contradictory requirements of tourism, nature conservation and agro-forestry need specific attention as a whole if sustainability is to be achieved.

Steps involved in the Monchique Sustainability Monitoring Process

1) Establishing the Euro-regional Research Structure

This would involve INPECO and partner organisations identifying the European interdisciplinary research team and the regional academic component.

2) Establishing the Stakeholder Network

Identification of the local, regional and national government agents, the business interests and the local community who have an interest in the proposed project.

3) Definition of the local socio-ecological landscape

A group 'map' of the spatial development of Monchique would need to be established, based on a PSR model and the ECNC 'Coarse Filter' and 'Fine Filter' model. This would give the researchers and other stakeholders a common perspective of the issues.

4) Definition of the monitoring and auditing process

The PSR / 'Coarse Filter' - 'Fine Filter' model would reveal sufficient information to design a multi-disciplinary monitoring programme that would involve appropriate sustainability projects and the indicator information feedback system.

5) The fieldwork stage

Implementation of sustainability projects and the indicators system. Taking the example of groundwater pollution, a network of field sites would be established to monitor the quality of groundwater, providing a indication of water quality. Where pollution sources were identified, appropriate projects would be designed to test intervention possibilities. The outcome of these interventions would be reflected in the monitoring system changes in the indicator readings.

6) Establishment of auditing process

The monitoring and indicator system would require interpretation. A model of this auditing process would need to be created so that the stakeholders would be able to participate in the audit and then take appropriate action. In this way the programme feeds back into itself, it provides a continuous methodical management system of the given landscape.

It is here that feedback from the model to policy level is a critical feature, demonstrating how this approach makes investigative scientific research more policy relevant. The information model should also be tested for its ability to deliver the right environmental information to the right people at the right time.

Gordon Silence Ecotrans

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