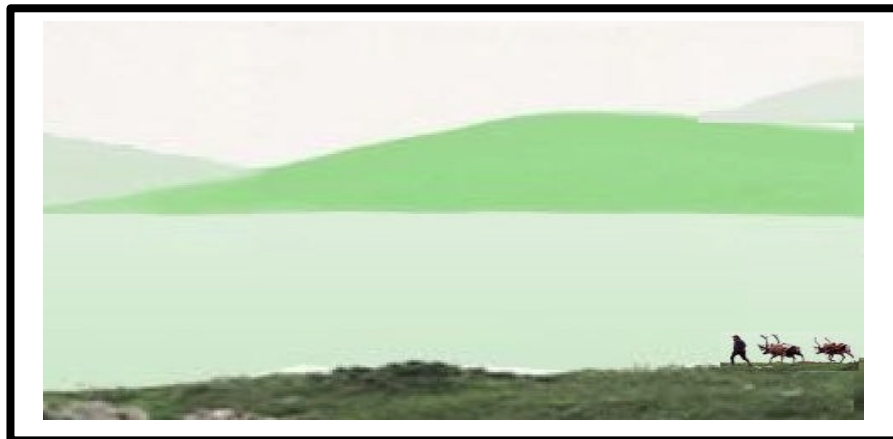




CTM Centre for Transdisciplinary Environmental Research
STOCKHOLM UNIVERSITY



Sustainable and Geodevelopment in Lapland: The Emergence of a Natural Adaptive Comanagement? A Close Look into the Ecotourism Sector



Horacio U. Palomino

**Natural Resource Management
Governance and Globalisation
Master Thesis 2005:13**

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A Close Look into the Ecotourism Sector

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Natural Resource Management, Governance and Globalisation
Master Thesis
2005:13

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www.ctm.su.se

This thesis is written to fulfil the requirements of the Master Program

Natural Resource Management, Governance and Globalisation

a transdisciplinary program held by the Centre for Transdisciplinary Environmental Research, CTM, Stockholm University. The one-year program has four course models and ends with the writing of a master thesis on a subject related to at least one of the course modules.

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Addresses the difficulties and opportunities in transdisciplinary environmental research. In lectures and seminars participants discuss methodological and epistemological issues such as explanations, causality, systems borders, and objectivity.

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Master Thesis for the Natural Resource Management, Governance and Globalisation Programme, Centre for Transdisciplinary Environmental Research, Stockholm University. June 2005.

Horacio U. Palomino

Abstract

The main aim of this thesis is to investigate, from a transdisciplinary perspective, how the ecotourism industry has been embraced in the Swedish Lapland, an area flooded with sensitive issues such as property rights and indigenous people; and to enquire whether tourism can act as a positive form for sustainable development. This work as well provides and adds to the discussion of a rethinking of tourism and its sustainability shape, the so-called ecotourism, towards a more integral form that involves not only the dynamics of the system but incorporates the geographic character of the place by emphasising that the development must be pursued locally, i.e., geographically, and thus the terms geodevelopment, and its tourist counterpart geotourism, explicitly recognise that the local livelihoods, traditions and culture must continuously be expressed, represented and benefited from any form of development. The results this study has found are that characteristics on the ecotourism companies such as collaboration across different levels, trust, and the incorporation of traditional knowledge into their management are being essential for the flourishing development of the industry in the area and towards a sustainability shape. Moreover, they have occurred as natural processes and not through formal institutional arrangements. Finally, this thesis examines possibly underlying reasons of the development of a natural adaptive comanagement by making use of complexity theory, introducing the notion of an order-for-free memory of the ecosystem, and to understand adaptability and transformability when occur as intrinsic and natural, self-organised, emergent properties in a social-ecological system. This study suggests that there exists constructive and positive forms of tourism that care extensively for the environment and its people but better institutional arrangement at national and global levels are needed to help develop these forms, which should fully include the local livelihoods and their knowledge.

KEY WORDS: sustainable tourism, ecotourism, geotourism, geodevelopment, adaptive comanagement, indigenous people, traditional ecological knowledge, order-for-free memory, Sami, Lapland, Sweden.

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Chapter 1

Introduction

1.1 Tourism, Sustainable Development and Globalisation

Probably the single greatest concern for every country is the impact tourism will have on its environment.

Naisbitt 1994: p. 140

Tourism is one of the largest industries on Earth and one of its fastest growing economic sectors. Tourism with the travel sector alone comprises the largest industry on the world (WTTC 2004) and, consequently, it accounts for severe and big part of the impacts on the environment. For this reason the adhesion of the sustainability discourse into the tourist industry, as well as for other industries, in the form of “sustainable tourism” has constantly been promoted by many international bodies such as the United Nations Environmental Programme (UNEP), the Convention on Biological Diversity (CBD), the World Tourist Organisation (WTO), the World Tourist & Travel Council (WTTC), and by many others. From this discussion several terms have emerged and few others have already become fashionable such as “ecotourism”. Most of these terms have rather confused people and have been used indistinctively by tourist companies in order to burst their tours with more tourists in the name of sustainability.

The rapid increase in cross-border economic, social, technological exchange under the conditions of capitalism, has allowed the tourist industry to become one of the world’s largest industries. Electronic and information technology, essentially with the fast development of Internet, has facilitated this growth in great part by offering not only an extensive range of information for the many world wide destinations, but also by offering direct access to fare and hotel information and online reservation services. Nowadays, more people are in motion than ever before in history. The intercontinental tourism flows have significantly increased during the last decade making tourism a truly global industry. In 2004, the World’s Travel &

Tourism Industry generated 3.8% of GDP and more than 70 million jobs, while the broader Travel & Tourism Economy about 10% of GDP and 200 million jobs; the Travel & Tourism Demand is expected to total 4.5% real growth per annum between 2005 and 2014 (WTTC 2004), which means going from about 700 million international tourists visits a year to around 1.6 billion by 2020 (The Guardian 2004).

1.2 The Present Situation

We are living in an era of mass tourism, as we can realise from the above figures. Globalisation and market forces are ruling into that trend too making tourism one of the most visible expressions of a globalised world. Moreover, the rapid increase of tourism seems to provide very positive outcomes such as the creation of employment, the increase of the economic level of a destination or a country, the commercialisation of the local products, the interchange of traditions, customs, and even thoughts and ideas that enrich both the visitor and the local (WTTC 2004). But unfortunately, the rapid increase of tourist also has its negative impacts such as the increase in the consumption of ground water, energy, destruction of landscapes with the new infrastructures to accommodate the tourists, increase in pollution and waste, adverse impacts on livelihoods like lost of traditions (Swarbrooke 1999), to mention some. However, there are many types of tourism, all with different kinds of impacts. Some have more adverse impacts than positive and some, presumably, have more positive than negative. Even so, presently, it seems that the current management in tourism enhances more the cons than the pros of the industry (New Scientist 2004; Wheeler 1993), and therefore, the so called sustainability type “ecotourism” has been eagerly promoted by many international organisations and bodies to balance economic development, social development and the protection of natural resources and the environment (UNEP 2002). This, in turn, has aggravated the development of a massive growth of ecotourism; one in five tourists worldwide and about 10% to 30% a year (The Guardian 2004). These figures could appear to be encouraging, as we have been told that ecotourism could serve as a positive form of tourism, but recent evidence does not suggests that; for example the rapid increase in ecotourism has significantly changed animal’s stress hormone levels and social behaviour (New Scientist 2004), which presupposes that the long term impact of ecotourism could endanger the survival of the wildlife it tries to preserve. All in all, these facts make me believe that the impacts of tourism in general, seriously superposes the

positive ones with the negative ones; and to regard as a myth that ecotourism can benefit countries in the economic, social, and environmental dimensions without damaging its natural resources and environment; and, finally, to question if there is, really, a sustainable type of tourism. If the answer is affirmative, we may be very far from it.

1.3 Objectives and Hypothesis

Hypothesis: Given today's global economy and economic drivers, sustainable tourism cannot be achieved. However, there may be constructive forms of tourism which, some of these, may found inside indigenous cultures with a long-established traditional ecological knowledge.

This transdisciplinary work has two main aspirations: *i)* to inspect from a holistic perspective the incorporation of the sustainability notion into tourism and to contribute to the barely starting discussion of a new form of tourism, namely, *geotourism* (TIA 2002). In order to achieve this, a literature review of sustainable tourism is examined. The new form of tourism, besides emphasising the geographic character of the place, should incorporate the dynamics of the system and, thus, a link between the adaptive renewal cycle and tourism will be presented. I also strongly emphasise that development must be carried and benefit mainly the local people and thus, backing up from the newly mentioned tourism term, introduce the notion of sustainable geodevelopment.

ii) This thesis studies, from a social-ecological perspective, the newly development of the ecotourism sector in one of the areas flooded with sensitive issues such as property rights and indigenous people, the Swedish Lapland, within the present institutional arrangements. The perception of ecotourism by the native people is analysed, as well as their form of management on this new industry. This study also provides us with a perception of how the local communities have been affected by the legally defined rights to own and use the natural resources. I also investigate the main attributes of the ecotourism managerial strategy of the region, and explore its key features as promising approaches to reach a more sustainable form of management, i.e. comanagement (Berkes et al 2001). Furthermore, this assessment aims to provide us with an insight if the global tourist industry can really be propelled towards sustainability under the current international and political regime that underpins the drive towards globalisation.

1.4 Scope and Limitations

This thesis, naturally, cannot cover all aspects of the tourist industry in the area of study, nor even when we frame it to, solely, ecotourism, or when we focus in a single destination. This is, when we focus in only one area or tourist destination, we still face numerous complexities that go beyond the geographic setting and lie across a diversity of dimensions. An example of this can be seen in Fig. 1.1 where our small town is immersed in different levels of pressure and influence, and many times there exists conflicts over management functions and policies between the local and central government and other international bodies. Moreover, a single destination involves a wide range of stakeholders, all with different interests including the local residents, the local tourism companies, the externally based companies, the planners and managers of tourism policies from the local and central authorities, which often have a political agenda based in political and economical considerations rather than in the interest of sustainability.

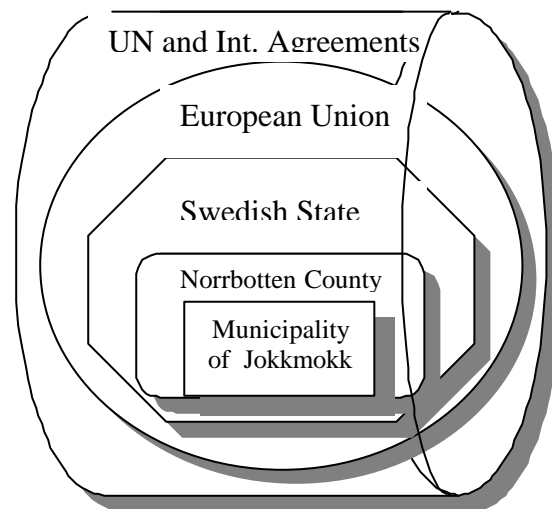


Fig. 1.1. Different levels of influence in management and policies.

Therefore, I have chosen to concentrate and place the study framed within the tour operators, within ecotourism, and the current management practiced. And then again, even here, we face a multi set of different levels of tour operators: transnational tour operators, major national tour operators,

medium-sized tour operators, and small-scale tour operators. Thus the scope and extent of this thesis is solely based in those small companies that provide specific products and services to tourists and focus and function within the region of study, let us call them small-scale¹ specialist tour operators. These cases are of particular interest because of the role and inclusion of the local and traditional ecological knowledge (LEK and TEK), which has received a predominant attention in recent years (e.g. Olsson and Folke 2001; Tengö 2004); but also limiting to only small-scale companies poses a serious risk to the study because of the reduction of the sample. And, thus, the generalisation may be not as strong as wishful, although it is a good insight into the state of affairs of ecotourism in the area.

I would like to mention that the environmental industry concerns, such as the tour operators' activities (including waste management, transport, lodging, etc) are not investigated in this study. The companies sampled here have fulfilled, or are in the process of, the certification of the Swedish ecotourism organisation known as "Naturens Bästa" (Best of Nature). Therefore, it can be assumed, with confidence, that the operators' activities minimise environmental impacts and are environmentally sustainable. I will be backing this research to that statement which unfortunately I did not have the opportunity to appreciate by myself. The basic principles for tour operators approved by Naturens Bästa will be mentioned in Chapter 4.

¹ Here we get into a definition problem that I should clarify. Defining and categorising enterprises varies according to headcounts, annual turnovers or balance sheet totals, or even market share or domination in the working field. Moreover, the definitions change depending of the interest group in turn, e.g. investment firm, governmental body or financial institution. For example, the US Commerce Department's Economic and Statistics Administration defines a very small business as one with less than 25 employees and a small business as one with 25 to 99 employees, while the European Union defines a small company as having between 10 to 50 employees and a micro enterprise as one with less than 10 employees (EU enterprise policy webpage). In this study I have considered a small-scale specialist company as one with up to 10 headcounts.

Chapter 2

Theoretical Framework

2.1 A Systems Perspective into Tourism

Tourism has very often been seen, and in many respects it is still regarded, as a self-contained entity of its own, structured in purely disciplinary lines, mainly social sciences and business, and often ignoring the natural sciences and interdisciplinary research (Farrell and Twining-Ward 2005). Nowadays it has been a tendency to consider tourism as part of the wider sustainability speech and, consequently, there have been recognition of the need to study the links between tourism and other industries and activities in order to develop a different insight and to improve our understanding of its numerous interactions and their implications. Perhaps, as Farrell and Twining-Ward recently commented, if tourism's research focus had not been so narrow it could have been in the vanguard of sustainability today (*Ibidem*).

This need to study tourism from a wider, multi-linked, and interdisciplinary perspective, steers us to use a *synthetic mode of thought*¹, and makes us realise that the present problems in the tourist industry will be not solved by taking them apart but by viewing them as part of a larger structure of problems and, thus, a *systems approach* is needed to deal more effectively with these issues by involving nature with biological, behavioural, and social phenomena (von Bertalanffy 1968; Ackoff 1974). Nevertheless, over the past few years, a significant number of interdisciplinary scholarly contributions within the sustainability debate have been achieved (Bramwell et al 1996; Butler 1999; Farrell and Twining-Ward 2004; Hunter 1995; Mowforth and Munt 1998; Swarbrooke 1999; Weaver and Lawton 1999). Some of these contributions will be reviewed in the next chapters.

¹ In synthetic thinking something to be explained is viewed as part of a larger system and is explained in terms of its role in that larger system; in contrast to analysis where an explanation of the whole is derived from explanations of its parts (Ackoff 1974).

2.2 Complexity Theory: Complex Adaptive Systems, Self-Organisation and Coevolution

Complexity theory² is concerned with the behaviour over time of phenomena in systems based on relations, patterns and iterations. It is a theory that maintains that the universe is full of systems (e.g. weather systems, immune systems, social-ecological systems, etc.) and that these systems are complex and constantly adapting to their environment, and hence, it is concerned with the study of complex adaptive systems, or CAS. Systems theory (von Bertalanffy 1968; Ackoff 1974; Weinberg 1975) has always been concerned with the study of complex systems³, however the term complex adaptive systems (CAS) was coined in 1990 by researchers of the Santa Fe Institute in New Mexico (see Holland 1992), as the “new” science of complexity which describes emergence, adaptation and self-organisation, all of which are basic systems principles.

On Earth, all complex adaptive systems seem to have some connection with life. For example, the prebiotic chemical reactions that gave rise to life, the process of biological evolution, likewise each living organism, the immune system, even the process of learning and thinking in humans and all aggregations of human beings, such as societies, business firms, scientific societies and so on, can also be complex adaptive systems (Gell-Mann 1994). Complex adaptive systems have been characterised by having historical dependency, non-linear dynamics, threshold effects, multiple basins of attraction, and limited predictability (Levin 1999). This means that complex adaptive systems have a history and, because they are dynamical systems, i.e., they change over time, prior states may have an influence on present states. More formally, complex adaptive systems often exhibit *hysteresis*⁴. Non-linear

² Certainly, there is no unified field of complexity theory among disciplines, but rather a number of different fields with some resemblance that encompasses more than one theoretical framework. But this reason some authors prefer to talk about complexity sciences in the plural (Rosenhead 1998), and have described it rather as an approach or a perspective towards research (Dent 1999). However, complexity theory, originally, has been a fundamental area of theoretical computer science after Hartmanis and Stearns (1965) seminal paper on the analysis of resources needed to solve computational problems, although nowadays there is a tendency to differentiate it from the rest by calling it “computational complexity theory”.

³ In recent times “complexity theory” has also been used as part of research field of systems sciences.

⁴ The term was coined by Sir James Alfred Ewing in 1882 to identify the phenomenon of the lag when applying and removing a force and its subsequent effect in magnetic materials, as well as in the elastic and electromagnetic (see Visintin 1994). “Hysteresis” is sometimes used in economics or biology to describe a memory or lagging effect in which the order of previous events can influence the order of subsequent events (*Ibidem*).

dynamics means, in practical terms, that a small perturbation may cause a large effect, i.e. sensitive dependence on initial conditions (e.g. the butterfly effect (Lorenz 1963)), a proportional effect, or even no effect at all. Threshold denotes a value or a location within predetermined levels where an abrupt change is observed, while multiple basins of attractions indicates that the dynamical system may have multiple attractors, each with its own basin of attraction that represents a set of points in the space of system variables such that initial conditions chosen in the set dynamically evolve to a particular attractor (Weisstein 1999), which in turn denotes a strong uncertainty of the dynamic system and, thus, limited predictability.

Complex adaptive systems in nature are usually open systems, in systems theory's terms it means that matter or energy can flow into and/or out of the system (von Bertalanffy 1965), or that they exist in a thermodynamic gradient and dissipate energy. Feedback among elements also present in complex adaptive systems, so that the effects of an element behaviour are fed back in a way that the element itself is altered. Network topology as well as coupling topology or connectedness are found in small-scale networks which have many local interactions and a smaller number of inter-area connections in dynamic systems (Haneman 2005). Complex systems are nested, so they may be themselves components of other complex systems, which may increase the complexity of the systems. Complex systems may also coevolve with other complex systems, and these systems may have a strong possibility to balance divergence and convergence so that they are poised between chaos and order. Furthermore, as time goes on systems of greater complexity appear, as the average disorder in the universe is increasing in accordance to the second law of thermodynamics (Gell-Mann 1994). For this reason complex systems are usually far from energetic equilibrium. Nevertheless, at any time, there might be patterns of stability, or *synergy* (Haken 1978), where mechanisms at work produce self-organisation, which results in local order. Kauffman (1993) has elaborated, during his thirty years of work, a theory called *order-for-free* that suggests that in order for life to have evolved it cannot possibly be the case that trajectories are always diverging from stability, and that in evolution of life complex adaptive systems can have convergent flow or stability to perturbations (*Ibidem*). This is the fundamental principle of homeostasis which develops as a natural feature of many complex systems (Kauffman 1995). Gell-Mann, a Nobel laureate, has said that complexity may offer a selective advantage producing favourable results in the real world for life and evolution

and their tendency to survive and not to disappear, but it is the challenge to evolutionary biologists to understand when that is the case (Gell-Mann 1995).

2.3 Adaptive Cycles and Social-Ecological Systems

Any tourist destination can be regarded as a complex dynamic set of social and ecological systems and, thus, be named a social-ecological system (SES). A social-ecological system can be described as a complex adaptive system (see Section 2.1) which have the properties of multi-level processes such as self-organisation, selection, and co-evolution (Berkes, Folke & Colding 2003). Moreover, complex adaptive systems have been characterised by having historical dependency, non-linear dynamics, threshold effects, multiple basins of attraction, and limited predictability (Levin 1999). This view of social-ecological systems being dynamic, contrasting with the classical view of single equilibrium in nature, poses more difficulties and challenges for the long-term management of natural resources. Complexity not only makes difficult to forecast the future, but even the uncertainties are uncertain (Walker et al 2002) as different states or multiple domain states exist (Holling 2001; Scheffer et al 2001). Holling and colleagues (Holling 1986; Holling et al 1995) proposed the ecosystem renewal cycle as a model of ecosystem dynamics, which has been successfully used for describing ecosystems. This model has evolved considerably since, and is now known as the adaptive cycle (Gunderson and Holling 2002). The dynamics of social-ecological systems can be described and analysed in terms of the adaptive cycle that passes through four phases: a growth and exploitation phase (r) merging into a gradual succession of resources (i.e. conservation) that occurs over longer period of time (K). These two phases are slow, cumulative, with reasonably predictable dynamics. As the K phase progresses resources become scarce, as competition is higher, and the system becomes less flexible and responsive to external variations or disturbances regimes (Bengston et al 2003). Here, the notion of resilience (which will be described below) is important, and it is seen as expanding and contracting within a cycle as slow variables change. Eventually, and inevitably, it undergoes a collapse and a release phase (Ω) that rapidly gives way to a renewal phase (α) and the possibility of reorganisation and adaptability of the system. These cycles occur at a number of scales and the social-ecological systems exist as “panarchies”, which are adaptive cycles interacting across multiple scales (Gunderson and Holling 2002). An illustration of the adaptive cycle will be shown in Section 4.3 when tourism as an adaptive cycle is presented.

Social-ecological systems are, at some point, subject to disturbances at different temporal and spatial scales. These disturbances can be of natural origin as well as human induced. Tourism fits into the latter category, and it can occur as a pulse disturbance, when a destination is infrequently visited, or take place as a chronic disturbance, e.g. when tourists arrive at a destination all year round. The frequency and magnitude of the disturbances may lead to loss of resilience severely affecting the SES and, possibly, resulting in a catastrophic regime shift (Walker et al 2004). In this context, resilience in SESs has been defined as the capacity of a system to absorb disturbance and reorganise while undergoing change so as to still retain, essentially, the same function, structure, identity, and feedbacks (Holling 2001). Disturbances may lead to resilience loss, but they are not always bad; disturbances can also lead the system to reorganise and renew itself, which can build resilience in the future. Disturbances are also referred to as *perturbations*, while tourism in the area, with the decision-making backing up this industry, can be seen as a force that can influence the environment and it is denoted as a *driver*. The time required for the effects of a perturbation of a process to be expressed has been named the *time scale of change* (Millennium Ecosystem Assessment 2005).

Research in social-ecological systems emphasises social-ecological resilience as fundamental for achieving sustainable development (Folke et al 2002). How much a system can buffer and still remain in the same state has to do with its capacity for self-organisation, which in turn involves the system's capacity for learning and adaptation (*Ibidem*). Therefore, it becomes interesting in analysing those management strategies that increase the capacity of a social-ecological system to build resilience. The complexity in the dynamics of social-ecological systems makes them intrinsically and inevitably unpredictable and uncertain; and thus, management practices should express the dynamics of the multiple interactions between evolving spheres such as institutions, ecological functions and services, technological developments, values, policies, etc, that emerge at different temporal, spatial and social scales. This in turn implies that the management practices should exhibit capacity for learning from its environment in order to modify its behaviours and rules to appropriately adapt to these environmental changes, and even more, to be able to reorganise and transform according to the increasingly high uncertain externalities (Olsson, Folke & Berkes 2004).

2.4 Traditional Ecological Knowledge

Recently, there has been increased awareness that there is a legitimate field of environmental expertise identified as traditional ecological knowledge (TEK) and its complement local ecological knowledge (LEK). Traditional ecological knowledge, also referred to as *indigenous ecological knowledge*, consists in “the cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationships of living beings (including humans) with one another and with their environment” (Berkes 1993), while LEK is considered as “knowledge held by a specific group of people about their local ecosystem [and regarded as] a mix of scientific and practical knowledge, being site specific and often involving a belief component” (Olsson and Folke 2001).

Traditional ecological knowledge represents the experience and understanding of nature acquired over thousand of years by direct human contact with the environment. Consequently, there has been growing recognition of the capabilities of many ancient cultures that successfully manage their own ecosystem without posing serious threats in their depletion, and in the incorporation of this knowledge into current resource management systems. The Brundtland report stated that “tribal and indigenous peoples’ [knowledge] can offer modern societies many lessons in the management of resources in complex forestry, mountain and dry-land ecosystem” (WCED 1987), as ecosystems are very complex entities and such are the interaction between its constituent organisms and physical environment. The incorporation of traditional knowledge is important for achieving sustainable development, as the results coming from this work will suggest.

2.5 Research Methods

A constructive methodological approach was employed in this, mainly, qualitative work, using qualitative and quantitative methods (Kvale 1996; Strauss and Corbin, 1999; Tashakkori and Teddlie 1998), and case study research strategy (Yin 1994) as the main tools for the collection and the examination of the information. The incorporation of ethnography in our methods proved useful with participant-observation, informal interviews/conversations and field notes (Peacock 2001). In-depth document review and analysis prior to and after the gathering of information also played an important role for the evaluation and interpretation of the data. In this

work, understanding and keeping present the historical and contextual connotations is extremely important, and, thus, archive investigation (Seale et al 2003) was also performed. Finally, an historical approach (McAllister 2002) is employed in order to understand how the social-ecological system acquired the structure that now exhibits. This approach appears natural in the study as we have seen that complex adaptive systems have a history as they change over time, and prior states may have an influence on present states. However, I am advocate of a theory of emergent laws about how complex systems work, and are these laws with a natural selection process which determine the present state. McAllister has well pointed that this integration has hitherto proven difficult, but a closer collaboration and integration between them are needed (*Ibidem*:47). This study is also attempting to pursue this integration.

For the overall examination of the data collected, triangulation was employed (an underlying principle in collection of data in case research taken from land surveying; see Patton 1999). This permits information to be cross-validated and, when necessary, targeted for follow-up and clarification. Validity and reliability were also addressed in order to reaffirm that our research methods were, indeed, consistent and, ultimately, to test the correctness and quality of our study. Specifically, construct validity (see Yin 1994) was tested by obtaining similar results from the multiple data sources (also evidence of convergent validity) as it can be appreciated in Chapter 6; Finally, during this study I tried to ensure that the research is identified in relation with the body of knowledge for which a comprehensive, but not exhaustive, literature review on the impacts of the tourist industry and of sustainable tourism will be presented in the following chapters. I also add to this body of knowledge my own discussion of sustainable tourism in the form of geotourism (in hope to introduce it to those not familiar with it and to encourage them to shift their thinking beyond environmental sustainability), and to complexity theory in the area of order-for-free models.

2.5.1 Sampling Process

In-depth interviews, informal conversations and observational fieldwork designed to collect information for this study were performed in the region of Lapland, Sweden, during the month of April 2005. The problem of non-response is very common to all those who conduct surveys (Smith 1999; Wiseman 2003); it was also the case for this study. A total of 10 eco-tour operators were identified as the potential sample for the study. Out of these, 7

were contacted either by phone or by email and the rest were not possible to reach. Of these seven, only 5 successfully completed interviews were made. This was mainly due to time and budget constraints of this study and also that some tour operators were occupied with their own activities and were not at that time present in the region.

Four of these interviewees correspond to the small-scale tour operators, three of them being Sami companies, and one a non-Sami small tour entrepreneur who moved to the area from the south of Sweden not that long time ago. This work devotes to the study of these four firms; however, the fifth interview comes from the project management of *Laponia World Heritage*, a project in charge of promoting the world heritage area of Laponia (Laponia World Heritage website) in the locality of Jokkmokk. A description and examination of this interview is beyond the scope of this thesis. Nonetheless, this interview provides another perspective of the planning and development of tourism in the area, and complements, by providing signs of validity and reliability (see Section 2.3), the results from the case study. For example, it provided the information that 30 companies are participating in the project and are interested in pursuing ecotourism, and that 15 are already involved and actively working in the industry, with most of the companies locally based, and only two companies come from outside of the region. In turn, this information can provide the sample size and ratio of the study ($r = 4/13$).

2.6 A Transdisciplinary Research

Transdisciplinarity is concerned with the crossing of boundaries in the production of knowledge. This wider research-oriented approach allows for a better understanding of the integration of natural and social systems (Constanza, Segura & Martinez-Alier 1996). But also the use of a transdisciplinary approach means that concrete aims, the delimitation and standardisation of basic assumptions, approaches, forms of justification and social networks can change considerably in the course of the research process (Küffer 2005). A main difficulty of transdisciplinary research is the way uncertainty and nescience are dealt (*Ibidem*). The Swiss Academy of Natural Sciences recognises that scientific systematisation of specialised knowledge is a research goal in transdisciplinarity:

Transdisciplinary systematisations seek forms of knowledge integration and complexity reduction which reject a

reductionistic theory, language or method [...] The goal is systematisation which does not reduce knowledge to a single perspective. This kind of goal is associated with certain specific features. These include the ambiguity of concepts, to which great weight is lent in the concept of "boundary objects" and in the discussion surrounding the problem of incommensurability. (Küffer 2005).

For this reason, and to overcome problems of nescience, I have also tried to elaborate an *informative research* (Ewing et al 2002) with a comprehensive literature reference in order to enlighten the reader, who should not reduce the knowledge to a single perspective, and provide him with the body of knowledge of various research fields that may be unfamiliar to him. This work can also be considered an informative research because some of the concepts employed here such as geotourism and its principles, complex adaptive systems, adaptive cycles and resilience, were shared and discussed with all the informants, who did not have any explicit knowledge about any of them, although the Sami reindeer herder interestingly had a strong intuitive knowledge about adaptive cycles and resilience. In turn, this work could also have evolved into an *action research* (Lewin 1951), unfortunately the time constraints of the research did not allow for that. However, if I did manage to touch with these new ideas a handful of persons, the contribution of this thesis cannot be underestimated.

Chapter 3

The Impacts of Tourism: Economic, Political, Social, Cultural and Environmental

3.1 The Positive Impacts of Tourism

The tourist industry is a major contributor of positive effects to the public welfare in general, and supports government services and infrastructure (WTTC 2004). Perhaps, its main positive impact is economic related which accounts for:

- the *contribution to government revenues*, with direct contributions generated by taxes on incomes from tourism employment and businesses and indirect contributions originated from taxes and duties on goods and services supplied to tourists (UNEP Tourism website);
- the *job creation* from direct or indirect employment, where direct employment refers to the jobs generated from the tourism consumer services like airlines, hotels, tour operators, travel agencies, restaurants, etc., whether indirect employment corresponds to the jobs created in those industries which supply tourism with infrastructure, equipment, supplies, etc. (World Travel & Tourism Tax Policy Center: Economics of Travel & Tourism website);
- the *foreign exchange earnings*, when international travellers inject hard currency directly into the economy boosting export income (*Ibidem*);
- *new business start-up*. Travel and tourism sector is very effective in activating small and medium sized businesses (*Ibidem*);
- the *service economy stimulus*, tourism enterprises purchase business services from other sectors like finance, insurance and communications, and, thus, it stimulates activity across the entire service sector (*Ibidem*); and

- the *economic multiplier effect*, when money is removed from the economy by informal employment such as street vendors which is estimated to generate an indirect contribution equal to 100 % of direct output (*Ibidem*), the positive side is that the money is returned to the local economy, or even the possibility for a new start up business.

Further information and detailed lists of economic contributions from tourism can be obtained at UNEP Tourism, World Travel & Tourist Council, and World Travel & Tourism Tax Policy Center websites (see References).

Tourism can also affect positively the livelihoods of its residents in the political, social and cultural domains. The impacts, of course, will vary enormously between situations among different spatial and temporal scales. An example of some potential positive and negative impacts on aspects of livelihoods, using a sustainable livelihoods framework (Carney 1998) to consider the many ways in which tourism affects different components of the livelihoods is shown in the following table.

Potential positive and negative impacts of tourism on aspects of livelihoods		
Tourism affects	Possible positive impacts	Possible negative impacts
Livelihood goals	<i>Tourism can</i> support livelihood goals such as economic security, cultural life, and health	<i>Tourism can</i> undermine economic security, self-determination and health
Livelihood activities	Expand economic options	Conflict with other activities
Capital assets	Build-up assets (natural, physical, financial, human, and social)	Erode assets
Policy and institutional environment	Improve the context of residents' ability to influence it	Exacerbate policy constraints
Long-term livelihood priorities	"Fit" with people's underlying long-term priorities.	Create or exacerbates threats to long-term security

Adapted from Ashley and Roe (1998).

The contact and interaction between different cultures has significant impacts in the understanding of different societies and the recognition of the distinctiveness of the cultures. This in turn, can bring positive impacts in the cultural, social and political spheres:

- Cultural impacts such as the preservation of heritage and traditions, and the revival of old standing traditions such as traditional art, craft and festivities.
- Social impacts such as the enhancement of the destination's image and pride, the support of infrastructure by increased health care and education, and the access to services and opportunities that were not available before such as goods, technology or leisure, and in general a higher standard of living; and
- Political, indirect, impacts can help promote peace and ease political tensions. They may also help to develop a national unity embraced within the idea of a global community.

3.2 The Negative Impacts of Tourism

Expectedly, a massive growth of tourism brings along negative impacts as well. In the economic side, the development of tourism is mainly done by transnational companies and foreign capital, which means that tourism revenues will go out of the host country. This negative impact is one of the most important and is referred to as leakage. It has been estimated that in most all-inclusive package tours, about 80% of the tourist's expenditures go to the airlines, hotels and other international companies, and not to local businesses or workers (UNEP Tourism website). Another disadvantages can be the increase of prices for goods and services as well as the rise in the cost of living, which affects primarily to the local residents; a marginal creation of jobs such as seasonal employment, part-time or semi-skilled character of jobs. In addition the destination can become completely dependent of tourism leaving it vulnerable to externalities such as natural catastrophes or other industry impacts. Besides tourism development often comes at high costs for the local government and local taxpayers with money that is diverted from other needs such as education, health care or research.

Negative impacts from the social, cultural and political perspectives can also be found. The increase in social inequality and the emergence of conflicts; the unequal distribution of benefits coming from tourism; or even the augmentation of social problems such as crime and vandalism, or sexual exploitation, particularly of women, girls and young men, as has happened in some countries in Asia (Shah 2000). Other social impacts are the increased in the tourist density, causing the displacement of residents, as well as increased in noise, traffic and congestions. Tourism can also threaten culturally important places and artefacts, erode traditions or the authenticity of them, loss of cultural pride, or even fossilise cultures (Swarbrooke 1999). These impacts affect in political sphere too; they may inhibit national unity, shift the power from locals to the outside; it can be seen as a form of neo-colonialism, when locals completely lose control to the tourist industry (Robinson 1999). Moreover, there have been clear examples that when tourism is not properly managed and uncontrolled development occurs, it can have major negative impacts on the local environments, societies and entire cultures (*Ibidem*; Shah 2000).

3.3 The Environmental Implications of the Industry

Environmental management has traditionally been focused on regulating production industries such as manufacturing, but there is a growing interest in the environmental effects of the service industry (Davies and Cahill 2000). However, most of this industry has not been legislative regulated and it has been allowed to transform itself, rather, voluntarily. Tourism, given its scale and global extent, accounts for severe and important environmental impacts. These impacts are related to resource consumption, and pollution and waste generated by tourism related activities. There are many classifications for these activities and impacts, but roughly they can be divided into two: *i*) direct impacts and *ii*) supply chain impacts. The direct impacts are those produced by the service itself, including lodging and transportation, and the supply chain impacts refer to those industries that supply equipment or other services to the tourist industry such as infrastructure, technological equipment, or other supplies. Some authors prefer to consider accommodation and transportation as part of the supply chain (Davies and Cahill 2000), while others, myself included, consider that lodging and transport are intrinsically part of the industry themselves (Swarbrooke 1999). In addition, using a systems holistic perspective, it becomes necessary to examine the whole picture of the tourist industry, rather than dissecting it into

parts. Anyways, considering the extent of the tourist industry (see Introduction), its impacts must be enormous as well; from resource use such as energy and water consumption to pollution and waste outputs. Environmentally, tourism affects the air quality (mainly due to airline transportation), water quality, have impacts on habitat and wildlife, and can modify and fragment landscapes and ecosystems. If tourism grows at the rate presently seen, in consequence, these impacts also will grow.

But not everything is that bad. There exist positive impacts as well. The development of tourism can help in the conservation and preservation of natural environments that otherwise would have been exploited and depleted, e.g. national parks or natural reserves. Tourism can work as an incentive for the creation of national park and heritage areas, which in turn can serve as rehabilitation of the natural environment, or of man made buildings and monuments too. But perhaps, the most positive environmental impact this industry can provide is the opportunity for an environmental education and awareness for the local people as well as for the tourists.

3.4 The Impacts in the Nordic Arctic

The general impacts in tourism destinations have been presented, and I also would like to present the main impacts on the studied area but, unfortunately, there is still no information available in that respect. Tourism in the Arctic is a young industry. In 2001, the Nordic Council of Ministers, aware that tourism can create jobs and bring with it infrastructural improvements and benefit the quality of life of Nordic areas, recognised the need for the sustainable development of tourism in the Nordic countries by approving an overall strategy for its development and an action plan for its implementation (Nordic Council of Ministers 2001). In another recent addendum to this document (Nordic Council of Ministers 2003), there was stated that one of the main challenges is the lack of information on the economic and social benefits that tourism brings as well as the environmental and cultural impacts, and it was recommended that by 2005, the Nordic Council of Ministers has ensured that an agreed methodology is in place for a system to measure tourism's overall impact on the sustainability of the Arctic region (Nordic Council of Ministers 2003:p25). And that the system shall be able to measure a) tourism's economic impact on the local destination, b) tourism's impact in the local environment and c) tourism's impact on the local people and their way of life (*Ibidem*). However, with the information and several worldwide

examples of what the impacts may be, it becomes plausible that the negative impacts could be minimised with an adequate planning and a suitable management. It also becomes an arena of opportunity to test new forms of management that enhance a sustainable development.

3.5 In Brief

The general negative and positive impacts of tourism in destinations have been well summarised by Middleton and Hawkins (1998), although they differ in the categorisation I have just presented. But in short, there is a consensus by the UN Commission of Sustainable Development that the main potential adverse impacts generated by the industry are:

1. Pressure on natural resources: land and landscape, marine resources, atmosphere, fresh water, and other local resources;
2. Harm to wildlife and habitats, with associated loss of biodiversity: biological resources, ecologically fragile areas;
3. Pollution and wastes: land, freshwater, marine waters and coastal areas, air, noise;
4. Social and cultural pressure related to conservation and sustainable use of biodiversity: social and cultural impacts, adverse impacts on livelihoods, resource use conflicts (UNEP-CSD 1999).

In the present work, I explicitly recognise that all those aspects are intrinsically connected and my primary concern is focus on those managerial practices that can turn tourism into a positive force as well as minimise the harmful impacts already mentioned.

Chapter 4

Tourism and Sustainability

4.1 The Many Definitions of Sustainable Tourism

It has been nearly two decades since the terms “sustainable development” and “sustainability” boomed in our lexicon following the 1987 report of the World Commission on Environment and Development, *Our Common Future* (WCED 1987). After this report, thousands of initiatives have been taken to address different aspects of environmental degradation, and these terms have been adhered to many industries, tourism included. The vagueness and ambiguity of the concept of sustainable development has resulted in a wide variety of definitions and interpretations that are skewed towards institutional and group prerogatives rather than compounding the essence of the concept (Mebratu 1998). This has also been the case with the concept of “sustainable tourism”, and, therefore, a systematic brief analysis of representative definitions and interpretations in order to review the current body of theory on sustainable tourism will be presented in this section. There are also many forms of tourism: *ecotourism, nature tourism, wilderness tourism, low impact tourism, green tourism, soft tourism, and defensive tourism* (Neil & Wearing 1999) whose followers claim they are aligned with sustainable tourism. This analysis will serve to understand the development of the concepts and to acknowledge the need for a new approach of sustainability into tourism.

The first problem encountered with the definition of sustainable tourism, and the reason it has been seriously criticised, is that when talking about sustainable tourism it somehow becomes a utopia or a myth. Integrating sustainability¹ into all aspects of tourism is not a reality at present. Many of the aspects of tourism are not in any way, and they will not be for a long time, sustainable with our finest current technologies and best practices; the best example is long-haul air travel. Thus, many organisations such as the World

¹ Sustainability implies permanence of three interconnected aspects: environmental, socio-cultural, and economic, so it includes optimum use of resources, including biological diversity; minimisation of ecological, cultural and social impacts; maximisation of benefits to conservation and local communities, and the management structures that are needed to achieve this (UNEP-Tourism 2002).

Tourism Organisations (WTO) have recently preferred to speak about a sustainable development of tourism instead by following sustainable tourism guidelines, which should:

- 1) Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity;
- 2) Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance;
- 3) Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation. (WTO 2004).

Ecotourism is another term created, basically, for emphasising the relationship between tourism and sustainability, conservation and biological diversity. Hector Ceballos-Lascurain, a Mexican architect and environmentalist, is widely acknowledged as having been the first to coin the term ecotourism in 1983 (Neil & Wearing 1999). His definition was primarily focus as a form of travel with environmentally responsible visitation in natural areas in order to enjoy, study and appreciate nature (*Ibidem*). This definition was widely spread and used, mainly, to overlap *nature tourism* (tourism with a primary focus on experiencing natural areas), and it also became the form of tourism used as a model for moving tourism towards sustainability. The Convention on Biological Diversity (CBD) also created guidelines on biodiversity and tourism development endorsing ecotourism in its fifth ordinary meeting of the Conference of the Parties on 2000 (CDB website). Although those guidelines have been seriously criticised, mainly by NGOs, for lacking provisions for cultural sustainability and protection rights, mostly, for indigenous people (Johnston 2004). Nonetheless, there has been a general consensus that in order to promote sustainable development and for ecotourism to be successful, should incorporate the local society, e.g. local communities, into service planning and provision, and to include programs to meet the fundamental needs of income and employment for the people at the local level (Barkin 1996). These final remarks were not that specific (any tourist corporation could argue that it provides income and employment for the people in the region) and as a consequence drove a boom of ecotours.

Any tour operator as long as it was nature related, could consider itself as an ecotour operator. The problems with the ecotourism being promoted became apparent (Johnston 2004; Swarbrooke 1999; Wheeler 1993) but it was not until 2002 that some key issues were explicitly addressed, as can be appreciated from the Quebec Declaration on Ecotourism at World Ecotourism Summit in 2002, which extended its principles to “ecotourism embraces the principles of sustainable tourism [...] and the following specific principles [...]:

- Contributes actively to the conservation of natural and cultural heritage.
- Includes local and indigenous communities in its planning, development and operation, contributing to their well-being.
- Interprets the natural and cultural heritage of the destination to visitor.
- Lends itself better to independent travellers, as well as to organised tours for small size groups” (World Ecotourism Summit: Quebec Declaration on Ecotourism 2002).

Ecotourism then shifted into really embracing the three sustainability interconnected aspects (and not only ecological concerns): environmental, socio-cultural, and economic, and emphasised explicitly the inclusion of the local communities into its management. It would appear that we got the right approach towards a more sustainable tourism. All these principles have started to be then embraced by many ecotourism organisations around the world. In the study’s particular interest, the Swedish ecotourism organisation known as “Naturens Bästa” (Best of Nature), has established six criteria for approved operators, which can be found thoroughly in Naturens Bästa (2002) criteria document:

- 1) Respect the limitations of the destination – minimise the negative impacts on local nature and culture;
- 2) Support the local economy;
- 3) Make all the operators’ activities environmentally sustainable;

- 4) Contribute actively to nature and cultural conservation;
- 5) Promote knowledge and respect and the joy of discovery, and
- 6) Quality and safety all the way.

We can see here reflected the shift that ecotourism has had from environmental sustainability towards the three integrated aspects of environment, socio-cultural, and economic. But is it enough? Should ecotourism be considered the ideal towards sustainable tourism?

The Cons of Ecotourism

Although there are very positive aspects of ecotourism in relation to sustainability, and in spite all the support it receives from international organisations, in my opinion ecotourism has several major drawbacks and I consider the term as a vice concept, i.e. a weakness because of its bad usage. Firstly, there is a problem with the term itself. It is very possible that travel suppliers call themselves “eco” because they offer economical tours, ones affordable to many people, others may use it for economic gain without abiding to environmental principles (Beeh 1999). Besides there are no industry standards or regulations for the usage of the term; the labelling and guidelines are usually given by independent bodies or societies that have little or nothing to do with the local people. There is also the growing problem that tour operators label themselves as ecotourism where they should be statistically categorised as, e.g. nature tourism or into other category (Wheeller 1993). This represents a problem when trying to gather real statistics about the growing numbers of ecotourism operators worldwide. Ecotourism could also be called the “beauty wildlife tourism”. Very often it appears that ecotourism is more about wildlife, seeing beautiful or exotic animals rather than the ugly or boring ones (which are as important in ecological terms). The same happens with indigenous tribes, for example seeing a lion or an elephant in Africa is seen as more important than meeting Maasai tribespeople (Swarbrooke 1999). Ecotourism can then lead to the commodification of indigenous people and wildlife where both people and animals are not treated with dignity (*Ibidem*). Ecotourism has also been labelled as the “ego-tourism” (Wheeller 1993), a form of tourism that allows tourists to have a clear conscience even after taking a car to the airport or a jumbo jet to the tourist destination (*Ibidem*). All in all, I have summed some doubts of ecotourism and

even the morality of the term. We have seen that ecotourism and sustainable tourism is not necessarily the same thing; furthermore, if ecotourism continues to grow at the current rate disturbing wildlife (see Introduction), it will be necessary to develop a sustainable ecotourism instead. Perhaps it is time to step towards a truly local concept of tourism, a concept that embraces all the ecotourism principles in the Quebec Declaration with a good relation with sustainable development, but reflecting the ethics in the business and promoting moral and ethical responsibilities and behaviour in the tourists, and more.

4.2 A New Approach to Tourism: Geotourism

At the end of October 2004, The National Geographic Society announced its first country partnership and official strategy for its new developed concept of sustainable tourism (see National Geographic website). In contrast with the other definitions, the new term offers explicit recognition and value of the geographical character and cultural heritage of a destination. Geotourism has been defined as “tourism that sustains or enhances the geographical character of the place being visited – its environment, culture, aesthetics, heritage, and the well-being of its residents” (TIA 2000 and National Geographic website). Generally, this new term has had a welcoming good support, even for academics (Buckley 2003) but there are many others that criticise National Geographic for branding its own version of ecotourism and creating a market niche in its own image (Wood 2004). The term is closely related with the definitions described in the previous section, but it is explicitly concerned with preserving a destination’s geographic character by taking into consideration both cultural and environmental concerns, as well as the local impact tourism has upon communities and their individual economies and lifestyles. The interesting aspect of geotourism is that the term is broader than ecotourism, more tourist profiles fit better into this category, and it can be promoted having different applications, as it can be seen from the next figure. It gives the opportunity to any kind of tourism to work towards sustainability rather than fighting each other which one is inherently more sustainable. Different tourism dimensions can belong to the geotourism domain only if they embrace the geotourism sustainability principles.

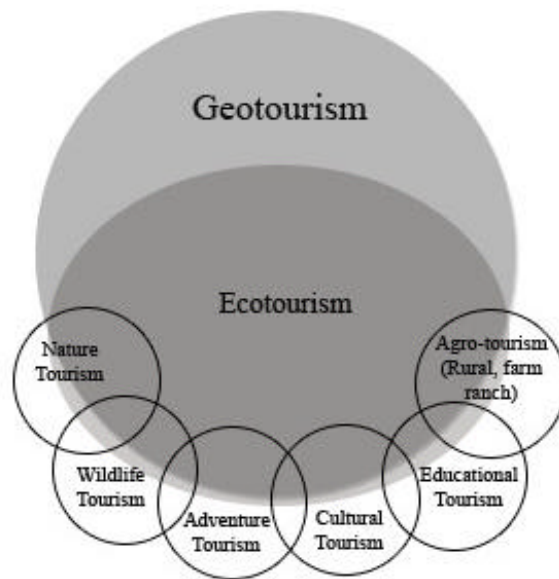


Fig. 4.1. Model of Potential Geotourism domain embracing other tourism dimensions.

Specifically, what I like about this new definition is the incorporation of the geographic character of a place by integrating cultural sustainability as an axiom. It treats the cultural concerns equally important as the environmental ones. Loss of distinctive characteristics of a place such as erosion of local customs and cuisines, destruction and absence of regional architecture and general culture are seen as significant as environmental degradation, biological diversity loss, and the well-being of the local residents. It also acknowledges that cultures are always changing, so it is concerned about conservation and management rather than preservation and fossilisation. And also importantly, it promotes ethical business and social responsibility.

In the previous section, some of the positive aspects of ecotourism were highlighted, and although we have seen some of the cons and serious flaws of this term this does not mean that ecotourism is bad or we should change it for geotourism. The development of ecotourism, such as this study portraits, may work fine for certain regions and certain tourist products involving nature and wildlife. Nevertheless, ecotourism can perform better, towards a more sustainability type, when adopting the fundamental principles of geotourism. We have already seen this inclusion in Naturens Bästa's criteria for ecotourism labelling. But the main problem, in my point of view, is that

currently we are trying to shift all forms of tourism towards ecotourism because we believe it is the right way to go. This immediately implies that many tour operators would prefer to shift to ecotourism and to work in a nature and wildlife environment because that would seem the appropriate choice for sustainability as most of international bodies and organisations are encouraging it, in addition, and a big plus, it is now a boom and pays off. Also, it encourages tourists to opt for ecotourism destinations and activities, as we have seen the high increasing in ecotourists recently (see Section 1.2), making them feel that they are contributing towards sustainability. There exist other form of tourism, not only ecotourism, and these may well be working towards sustainability. This is the main reason and importance why to shift our thinking from ecotourism as being the proper choice. It is not only about adding additional requirements to ecotourism, but a rather ideological shift.

This new term, geotourism, also encourages us to shift our thinking beyond environmental sustainability by acknowledging the importance and interrelatedness of our social and cultural systems with the environmental ones. This is the main motivation for the title of this thesis; it is not only necessary to implement sustainable development into the expansion and improvement of our society; we must also ensure that a *geodevelopment* takes place in which restorative and reconstructive forms of development happen in order to enhance a place's natural and cultural uniqueness, as well as providing well-being for the local communities and support of their livelihoods. I am advocate to rather employ the term *sustainable geodevelopment* for emphasising those objectives, and always keeping in mind that the development carried must provide gains, primarily, at the local level.

The term of geotourism, itself, may also have some disadvantages, in fact the term already had been coined before as “[tourism] to acquire knowledge and understanding of the geology and geomorphology of a site [...]” (Hose 1995). UNESCO had also launched an initiative for the recognition of national sites with geological heritage value, the so-called “geoparks” (UNESCO Geoparks website). Although, the common usage from this term for the mid-1990s onwards has not spread widely, as pointed by Patzak (1999).

Nevertheless, whichever term or approach to sustainable tourism we may want to use calls for a sustainable tourism challenge, where the planning, developing and management in a tourist destination includes an optimum use

of resources and minimisation of ecological and socio-cultural negative impacts, with the maximisation of benefits for all stakes involved, but primarily, gains for the local communities. This new approach must be considered as an integrated, and intrinsically connected, system in which all elements and variables are linked. This means that tourism requires a holistic approach that acknowledges the complexity and the importance of considering uncertainties at the tourist destination.

4.3 Tourism and the Adaptive Renewal Cycle

As mentioned, a tourist destination can be regarded as a complex set of social and ecological systems and, thus, it can be described as a complex adaptive system (see Section 2.3). Moreover, tourism, itself, with the industrialised built-in interconnection within economy and society, generates very complicated problems, just as happened with the environment, and this is also reflected in problems with respect planning and management. Recently, it has been acknowledged that tourism should be recognised as a meta-problem (Hall 1999), with the main concern being that we still believe we can understand its dynamics and consequently, produce an effective planning and successful management. The acknowledgement of complexity and uncertainty in tourism make difficult to foresee any planning, as different possible scenarios, or multiple domain states, exist. For example, some of the unpredictable factors are natural catastrophes, political instability in the region, or economic recession.

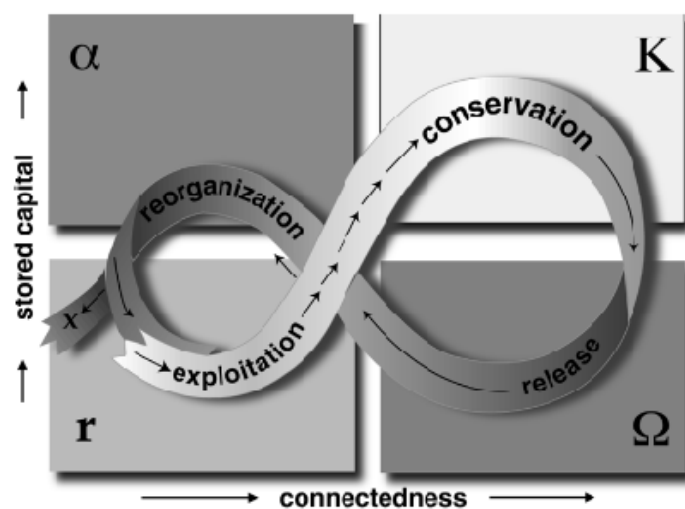


Fig. 4.2. The Adaptive Cycle. Source: Gunderson and Holling (2002).

The idea of tourist destination having life cycles is not new, it was first suggested by Butler in 1980 through his model of the 'tourist area life cycle', also known as Butler's S-shaped life cycle. I will compare his model to that of the adaptive cycle seen in Section 2.3.

Butler described the cycle of a tourist area starts with an exploration stage following by the involvement and the continuous development of the area (this stage can be seen as the growth and exploitation phase r). As the number of tourists increase, the destination start to approach a critical range of elements of capacity leading to a consolidation phase or stagnation (which can be seen as phase K), and with the number of tourists increasing and reaching the critical capacity, the destination gets fewer visitors and may decline (Ω). Finally, Butler believed that a new phase of stabilisation, reduced growth or rejuvenation starts (which can be seen as phase α although it was not explicit in his model) depending in the management strategies employed.

The S-shaped life cycle, from a tourism point of view, resemblances very much the adaptive cycle described in Section 2.3. Furthermore, if we embrace a systems perspective, it is feasible to integrate economic, social and environmental aspects into Butler's model, and, in consequence, the uncertainties, or unpredictable factors such as natural catastrophes, political instability in the region, economic recession, and so on, could have also been incorporated in the model. An immediate question asked is why this did not happen. It seems the answer lies in the narrow management (or "old" management in allusion to Ludwig 2001) based on efficiency and prediction that has been part of tourism during the last decades:

[Butler's theory] supports the view that destination managers can arrest or change this 'normal' development pattern by the management strategies that they adopt. (Middelton and Hawkins 1998)

Nonetheless, there is an increasing number of researchers, even Butler himself (Butler 1999) who have pointed out these problems and adopted a systems perspective into tourism (Hall 1999; Farrell and Twining-Ward), conceptualising tourism destinations as a "complex adaptive tourist systems" (Farrell and Twining-Ward 2004), and the existence of "tourism panarchies" (*Ibidem*), as well as the integration of tourism in the context of the new knowledge of the sustainability science (Farrell and Twining-Ward 2005).

Besides this brief comparison of the tourism life cycle and the adaptive cycle, this study would have liked to use both cycles to describe the dynamics of the area of study, and present an integration of them as well. However, this would represent an exhaustive work requiring a lot of resources and time. There exist a large number of papers and empirical tests of Butler's model ranging from a single resort (e.g. Kauppila 1995; Mos, Ryan & Wagoner 2003), to conglomerations of resorts and even entire towns (e.g. Aledo and Mazon 2004) that have successfully been describe in term of the tourist area life cycle. Therefore, there is no reason to believe that, if an analogy of Butler's model with the adaptive cycle can be made, the adaptive cycle cannot be applied to a tourist destination area. In the last chapter, it was said that the development of tourism in the artic is a young industry which needed an overall strategy and action plan for its growth, specially for its growth and development towards sustainability. This stage of exploration and involvement of various stakeholders working towards the development of the industry in the area can be seen as the growth and exploitation phase (r) of the adaptive cycle (see Fig. 4.2). This stage can also be seen as a window of opportunity for the diverse actors who see their involvement in the industry as potentially fruitful, that in turn will accelerate the growth. However, there are already prevention mechanisms for protection and development in the area, as we will see from the remaining chapters. The Laponia World Heritage then becomes a conservation stage (K) trying to make the exploitation phase to occur over a longer period of time. Ecotourism in Lapland is currently experience these two phases which are slow, cumulative, and with reasonable predictable dynamics. However, we will see the wide range of sensitive issues that have taken place in Lapland, and therefore, it is reasonable to presuppose that the Laponia World Heritage will also emerge as a new arena where, besides the conditions for conservation and protection of cultural heritage (K), probably conflicts and disputes, and issues of power structures will appear, giving place for a release phase (Ω) and the possibility to solve those issues, and thus, a reorganisation or renewal phase (α) will possibly also take place.

Chapter 5

The Swedish Lapland

5.1 Sapmi and the Sami

The area which has been home of the Sami – formerly Lapps – since immemorial times is called Sapmi (or Samiland); it extends across four countries and consists of the coastal and inland areas of northern Norway, the inland part of northern Sweden, the northern most part of Finland, and the Kola Peninsula in Russia. The original area of settlements was even larger, but they have gradually been forced to withdraw back. The Sami are the indigenous people of northern Scandinavia. They are one people in four countries and they consider Sapmi as their land even though this is not recognised by any of the four nations. The Sami are unique and show no relationship, in genetic terms, with any other peoples (Borchert 2001). Their mother tongue is Sami, a Finno-Ugric language which has only a distant relation with Finnish and farther distant with Hungarian. Exact Sami demographic figures are difficult to acquire with exactitude due to considerable methodological problems, nation state policies of assimilation and repression being the main cause (Josefsen 2003). However, the Sami population is estimated to be 70 000 people; about 40 000 in Norway, 20 000 in Sweden, 6 000 in Finland and 2 000 in Russia (Sametinget 2005). The Sami are considered a minority group throughout almost most of the area they inhabit. In Sweden, about 2 500 Sami still rely on reindeer herding for their living (*Ibidem*). The rest of the population gain their livelihood from agriculture, fishing and wilderness industries, as well as from the general labour market.

5.2 A Brief Ecological Description and the Ecosystems Dynamics

Most of the Swedish forest landscape belongs to the boreal forest, or *taiga*, which is the world's largest forest biome stretching around the Northern hemisphere in Alaska, Canada, Russia, Fennoscandia, and, previously,

Scotland. The northernmost part of the region, where Samiland is located, can be characterised as forest-tundra disproportioned, sparse and swampy forests among tundra and bogs, interspersed with lakes and rivers. The boreal forest in Fennoscandia and European Russia can be characterised by a mix of dominant natural coniferous tree species such as Norway spruce (*Picea abies*) and Scots pine (*Pinus sylvestris*), and the most common deciduous species are alder (*Alnus*), birch (*Betula*), and aspen (*Populus*), with larches (*Larix deciduas*) more abundant along the northern extremes (World Boreal Forest webpage). This region is also characterised by a large diversity of dwarf-shrubs, grasses, herbs, mosses, fungi, and lichens.

The ecosystem dynamics encompasses all the complex interactions among all elements, biotic and abiotic, of the ecosystem such as photosynthesis and organic decomposition, or the nutrient cycle, water cycle, and erosion, respectively. When adding the social side, where stakeholders, institutions, governmental and non-governmental bodies interact with each other and with the environment we get a real complex social and ecological adaptive system (see Introduction) or a *mess* (in allusion to Russell L. Ackoff (1974) when introducing his mess management). Most ecosystems, probably all at some point, are subject to disturbances at different temporal and spatial scales. The structure of the boreal forest is determined by these disturbance regimes, with most disturbances occurring naturally as pulse disturbances with a characteristic magnitude and frequency, spatial and temporal scale (Bengtsson et al 2003). Disturbances such as wildfire, insect infestation, and fallen trees that create local gaps in the canopy are important structural components of the ecosystem and essential for the survival of a wide range of boreal species.

At present, the Fennoscandia region has experienced several phases of use and exploitation in which modern forestry methods, as practiced, have removed natural disturbances and many of the natural structural components from the forest (Aksenov et al 1999). Large-scale rotation forestry, which basically consists in converting the forest from natural diversity to a high yield mono-crop of export timber, has resulted in a biodiversity crisis, leading to the almost complete conversion of natural ecosystems with only small areas of old-growth forest remaining (*Ibidem*).

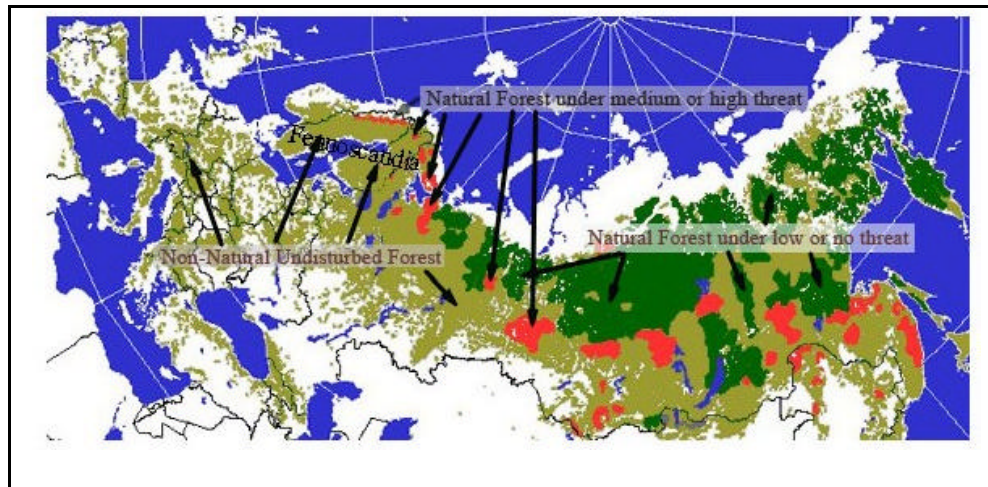


Fig. 5.1. Overview of Forest around Europe and Russia. Adapted from Interactive Forest Maps (2005).

5.3 Notes for Understanding the Sami Situation

The Sami have experienced, to some extent, the same difficulties as other indigenous groups around the world mainly, fighting for the right of subsistence as an identity group, preservation of culture and traditions, and the right to decide their own future (the right to self-determination to some extent). From the 19th century until after World War II, the policies of the Nordic states towards the Sami were based on assimilation (Josefsen 2003). The state expected that the Sami would replace their own cultural characteristics and language with those of the majority in order to consolidate the national state and secure development of society. This nationalistic ideology defined all social structures of the Swedish state, however, from the early 20th century, Sweden pursued a policy of segregation in relation to Sami reindeer herders and an assimilation policy in relation to all other Sami (*Ibidem*). Nevertheless and in spite of this, the main predicament the Sami face today is the lack of a specific form or “written proof” that states that they have inhabited and herded reindeer through specific areas of Lapland for ages. Unfortunately, the Sami had no tradition of recording their lifestyle other than with their own language, and thus, it has been solely an oral tradition, which is not accepted as evidence in the court of law. However, during the last half of the 20th century to present, the ideology and attitude from parts of the state authorities have been gradually changing and become more positive towards the indigenous people, as the understanding and acceptance of other cultures has been developed and culminated in international agreements and conventions that many states have signed or

ratified, which has granted a set of universal human rights to each individual, including minorities and indigenous people such as the Sami. Some of this international covenants will be mentioned following.

The formal basis of Sami politics consists of two pillars, namely, international law and national legislation: the Swedish Sami were not granted definite human rights until 1948 through the *United Nations Universal Declaration of Human Rights*, and later International Covenants on Human Rights, mainly, the *UN International Covenant on Civil and Political Rights* of 1966. It was not until then when they were allowed to be thought and to speak in their own language in schools; although Sweden has not formally, up to today, recognised the Sami as an indigenous people in its legislation. Another very important convention and central for the Sami was the *International Labour Organisation (ILO) Convention (No. 169) in Indigenous and Tribal Peoples in Independent Countries*, which includes the requirements for different sectors such as education, health, occupational training, employment and working life. At present, the Swedish government has not ratified the ILO Convention 169 (SOU 1999:25 discusses the conditions that must be met before the convention can be ratified).

In 1992, the Swedish Parliament decided to establish a Sami Parliament (Samentingslag 1992:1433). The law regulates the activities of the Sami Parliament and establishes the Sami Parliament as a government authority considered a public administrative body with the right to administer small-scale game hunting and the Sami summer grazing grounds. This action was applauded but at the same time criticised due to the timing of its establishment and because it was seen as an avoidance of the government of its international responsibilities and lack of a determined position in respect to their indigenous people. This lack of resolution and clear position has allowed the number of disputes to increase, principally land right conflicts between the Sami reindeer herders and private landowners, and conflict between Sami reindeer herders and the state and hunters over small-scale game hunting. Moreover, the lack of a clear position from the Swedish authorities exhibits arrangements jammed by legal ambiguities and political manipulation (Hahn 2000). Nevertheless, Sami land rights are currently being decided in the courts, with the Sami facing the predicament of the immemorial rights. Ironically, in Norway the burden of proof is reversed, the landowners must prove that immemorial rights do not exist (Sametinget 2005). What is more, and incongruently, is that recently, in 1996, UNESCO inscribed Laponia, a

total of 9 400 km², as a World Heritage Site (see area map in Figure 6.1; Chapter 6) on the basis that the UNESCO's committee considered that:

[T]he site is of outstanding universal value as it contains examples of ongoing geological, biological and ecological processes, a great variety of natural phenomena of exceptional beauty and significant biological diversity including a population of brown bear and alpine flora. It was noted that the site meets all conditions of integrity. The site has been occupied continuously by the Saami people since prehistoric times, is one of the last and unquestionably largest and best preserved examples of an area of transhumance, involving summer grazing by large reindeer herds, a practice that was widespread at one time and which dates back to an early stage in human economic and social development. (UNESCO World Heritage website)

The nomination for a site to be included consists of natural and cultural criteria of heritage around the world considered to be of outstanding value to humanity, and UNESCO considered the cultural part based on the history and the still existing livelihood of the reindeer herding in the area. It will then become interesting to follow the Laponia World Heritage as a new arena where conditions for protection of cultural heritage appear but very possibly, conflicts and disputes, and issues of power structures will emerge.

Chapter 6

Results and Discussions of Ecotourism in Lapland

6.1 Four Small-Scale Specialist Tour Companies

As it has been mentioned (Section 1.3), I chose to select the case studies from small-scale specialist tour operators in different areas of the region of Lapland. The tour operators interviewed were based in three different municipalities: Gällivare, Jokkmokk, and Kiruna. The tours they offer are carried within the vicinity of those three cities and extend towards the Laponia World Heritage area and the Norwegian border (see map in Fig. 6.1). The average number of headcounts working in these companies from the cases studied was about 5 persons per case, with the smallest company having 2 persons and the biggest one about 10. Let me clarify why I have chosen to use the word “headcounts” instead of “employees”. When talking about the companies’ workforce, they were not very keen in employing the term “employees” to referring to the people working with the company. They prefer to use the terms partnership or business collaboration instead. This stance towards something that may be seen as trivial has important connotations, as we will see in the coming sections.

Table 6.1. Comparative Figures among the Small Firms

	Tour Operators			
	1	2	3	4
Company considered itself as	Sami	Non-Sami	Sami	Sami
Considered relation with Sami	Partnership	Collaboration	Partnership	Partnership Employer/Employee
Headcounts in Company	2	3	10	6

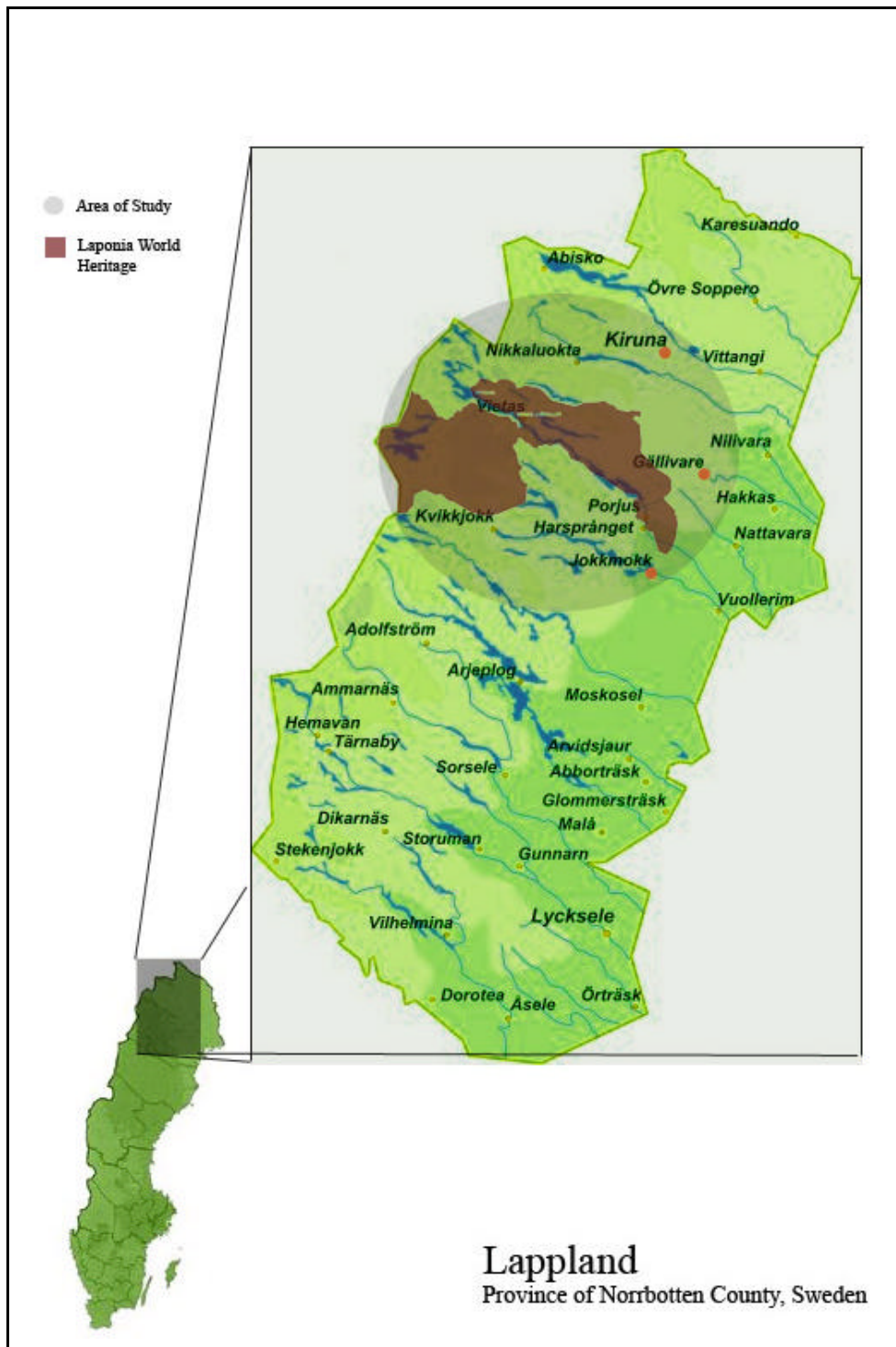


Fig. 6.1. Location of Study and Regional Map.

The main tourist activities these companies provide are: hiking, fishing, dog and reindeer sledging, snowmobile expeditions, nature appreciation (flora and fauna, e.g. bird, moose safari, etc), canoeing and kayaking, mountain biking, reindeer keeping appreciation and Sami culture (e.g. lodging in Sami village, history, cuisine, crafts, etc). These activities are usually designed and carried out for small groups between 2 up to 10 persons, with 4 or 6 being the typical number. The number of visiting tourists per year greatly varied among the cases, while the smallest company had only 20 tourists in 2004, the largest number of tourist one company had was about 10 000. The comparative figures among these data is shown following as well as a brief description of the companies surveyed, and in the subsequent sections, the results and discussion from this study is presented.

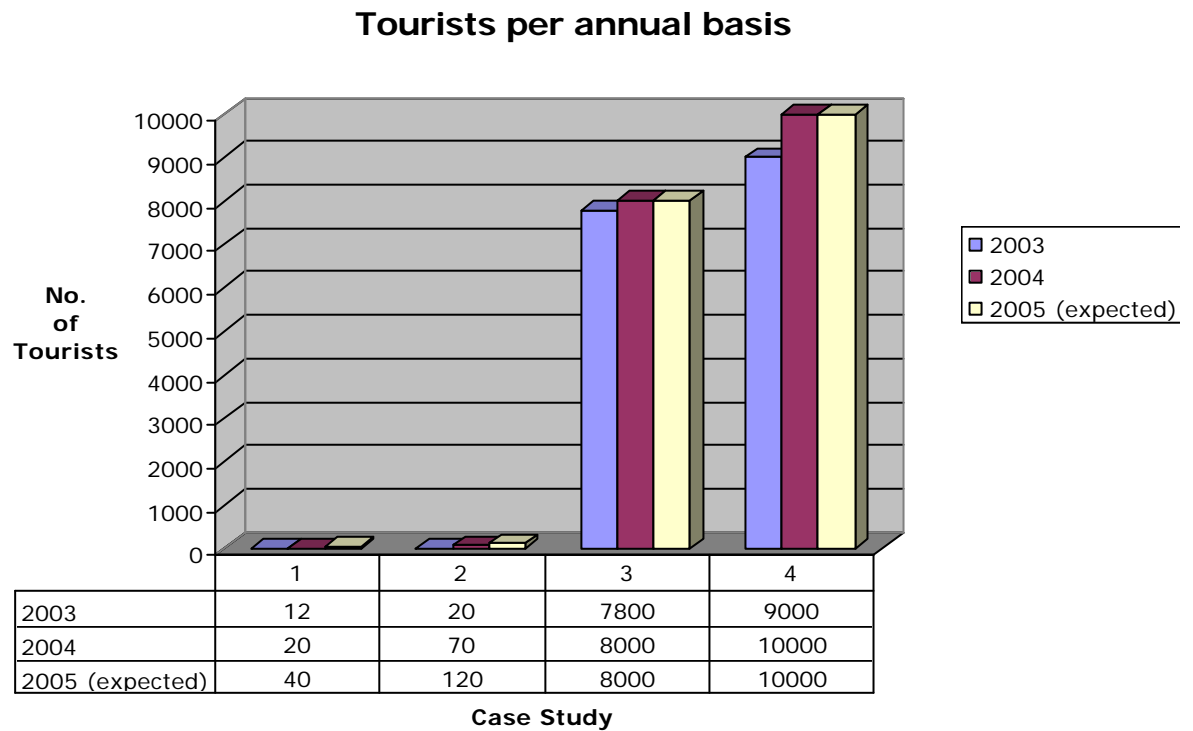


Fig. 6.2. Tourists per annual basis comparative figure among the tour operators.

Case I: The reindeer herders' tourist company

This small company has been in the tourism business for nearly two years. It consists of a partnership of only two people, both of them Sami and both reindeer herders. They described their company as nature and cultural tourism emphasising the reindeer herding knowledge into the company's products. The company does not have the "eco-label" yet, which is given by the Swedish ecotourism organisation known as "Naturens Bästa" (Best of Nature; see Section 1.3 and Section 4.1). They said that eventually they will have to obtain it in order to increase the company's image, although they do not agree how the labelling of Naturens Bästa is done. That is the reason the company cannot be officially classified as ecotourism. Nevertheless, they assure, and I agreed after spending sometime with them, that this small enterprise possesses all the suitable characteristics for ecotourism (see Section 4.1). In 2004, this company provided tourism services such as hiking, fishing, nature and reindeer keeping appreciation among others, to 20 visitors, and it expects to at least double that figure this year. The company provides those tourist products from February until June and from August to October.

Case II: The small, non-Sami, entrepreneur

Fortunately, I had the opportunity to talk with a non-Sami company working in ecotourism to have some opportunity to compare his answers from the other companies. This small company has only three members, and the head person comes from the south of Sweden, whom I had the opportunity to interview. The company label itself as nature based tourism, adventure tourism, and cultural tourism. It has been running for more than two years, but the same as with the case above, it does not have an "ecotourism" label yet, but it has already established contact with the ecotourism organisation Naturens Bästa and has shown that the small firm fulfils all the requirements. He thinks that the certification is quite expensive for a small company but sees it as necessary. He expects to get the official recognition later next year. The company had 70 tourists last year, and expects to provide services to about 120 visitors in 2005. Some of the activities offered by this company are hiking, nature safaris, dog sledging, canoeing and kayaking, mountain biking among others. The tourism activities are carried all year except for the months of May, November and December.

Case III: The small ecotourism Sami company

This enterprise consists of 10, sometimes 15, persons working in the tourism services. The tour operator is regarded as “nature tourism” and “ecotourism”, as it has been granted the “eco” label by the ecotourism organisation. It is an entire Sami company and describes its relationship with each of the staff as a partnership or close collaboration. This small business provided services to about 8 000 people last year, and expect about the same number of visitors in 2005. Tours activities are only given six months per year, among these are hiking, camping, dog sledge, snow mobile trip and other cultural activities. This company has close collaboration with a mountain station of the Swedish Tourist Organisation (STF; see references), which most of the times advertise the company’s activities.

Case IV: The small local Sami tour operator

This is a small tour and activity company consisting of six people, a Sami family business. They described their company as “ecotourim” and “soft tourism”. The enterprise is recognised as an ecotourism tour operator by Naturen’s Båsta. The company operates nine months a year, and during 2004 the company held activities for about 10 000 tourists and expects about the same amount for 2005. The products offered by this company are hiking, lodging in Sami villages, dog and reindeer sledging, snow mobile trips among others. This tour operator has established a good network with hotels in the region, specially, with the well-known Ice Hotel AB (see references), which serves a direct channel for the company’s marketing strategy.

As we can see from the above brief descriptions and the comparison table and graphs, there are some big disparities with the figures, for example, a small company of 6 persons can provide services for about 10 000 people a year (about three-four daily trips of groups of 10 persons), in contrast with the smallest company that only had 20. The reason for this disparity lies in the network of advertising and collaboration that each of the companies have established within the region as above mentioned. The two companies with the most number of tourists have close collaboration with the famous Ice Hotel (IceHotel AB company; see references) and the Swedish Tourist Organisation (STF; see references) respectively, which boosts the number of clientele significantly. The other two companies, which are comparatively new in the tourism sector, work independently with their advertising usually done by the local tourist bureaus and by previous customers recommendations of

their service and activities. Two companies work in tourism as their main occupation and source of living, while the reindeer herders' company main occupation is reindeer husbandry, and the small non-Sami entrepreneur is gradually shifting completely into the tourism sector. Three of the companies have Sami people as managers while only one had a non-Sami manager, who described his collaboration with the Sami as very close.

Table 6.2. Services and Activities Provided by the Tour Companies.

	Hiking/ Fishing	Dog/Reindeer Sledging	Reindeer-keep Appreciation	Nature Appreciation	Canoe/ Kayaking	Mountain Biking	Sami Culture
Case I	X	X	X	X			X
Case II	X	X		X	X	X	X
Case III	X	X		X			X
Case IV	X	X	X	X			X

6.2 Pressure on the Tourist Destinations

One can presume that a bunch of tourists doing sledge rides, camping and setting fires, riding snowmobiles, or even hunting elks, to mention just a few tourist activities, disturb, to different degrees, the social-ecological system that they are visiting. However, these human activities can well be part of the dynamics of the system without representing harm for the ecosystem (the Sami people being the proper example; see UNESCO nomination of Lapponia as a World Heritage in Section 5.3). But when the pressure is from external sources of the system such as with tourism, the activities can become disturbances and could well affect the entire ecosystem or may cause a change in it (see Section 2.3).

With this in mind, it becomes desirable to determine if it can be considered as chronic the ecotourism pressure in the area due to the tours activities, or it cannot. It has already been presented in the cases' descriptions that the companies' activities are not carried out all year round. When asked why, the responses were prone to be that there was not tourist season some of the months; for example, the beginning of winter it is too dark and there is not too much snow and at the end of winter the snow melts and it is too wet. At first sight, this tells us that the activities done by the tour companies

cannot be considered as chronic. I was also interested to find out if the activities and tours provided change or remain the same according to specific time of the year, more importantly, if the destinations where the tourists were taken changed as well, according to specific time and/or activity. The answers were divided, while two cases stated that they have the same tours and same destinations but activities change according to the season, the other two, the smaller companies, clearly pointed that they change both destinations and activities according to season, or if they have been in those areas before. It seems that as the number of tourists increases, the company has less room for an adequate planning of destinations and activities.

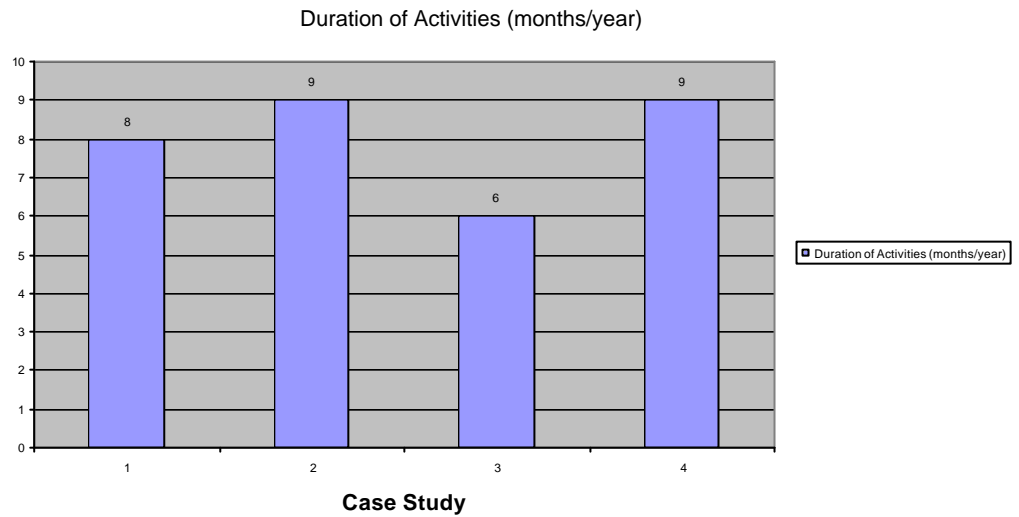


Fig. 6.3. Duration of Tour Activities per year

There was something peculiar and remarkably interesting that it is worth commenting. When talking with the Sami reindeer herder about this topic, he explained to me the importance of changing the destination visit, one, he said, “must not return to the same destination many times, one must not make fire in the same places as before, this is because we don’t want to disrupt nature and altering its form. We must find other places even for the same activities”. He later continued, “the tourist company should have a strong knowledge about nature. I have seen that many tour operators send their own guides that are not from the region and their knowledge of the nature around is weak. We have been here for very long time doing reindeer herding making little or no harm to the nature. My company tries to incorporate the knowledge of

reindeer herding into tourism”. “Tourist as reindeers?” (my own words) I thought, it might sound quite sardonic, although the idea is not that offensive when we recall that the Sami have been doing reindeer husbandry since immemorial times leaving very little or no signs of their presence¹. Besides, integrating the reindeer herding knowledge into tourism goes far beyond treating tourists in the same way as the reindeers are moved to another pastures, it implies bringing the traditional knowledge of this long-standing practice into tourism.

6.3 Local and Traditional Ecological Knowledge

Traditional ecological knowledge represents the experience and understanding of nature acquired over thousand of years by direct human contact with the environment (see Section 2.4). Therefore, it was not surprising to find that the Sami incorporate this knowledge into their life style and in turn it becomes part of their managerial practices.

All cases showed signs of employing traditional and/or local ecological knowledge. The respondents described to me their closed relation with the area displaying a firm knowledge of the landscape, the local climate, the distribution of species in certain places and a vast knowledge of the flora and fauna of the region. It was a delight to hear them talking about nature, specially the Sami reindeer herder. For example, they clearly pointed to me in the area map which are the places where they go hiking to find certain type of flowers or in which area they must move to find a moose. One may think that these companies, dealing with nature based tourism, should incorporate this local ecological knowledge into their lexis, tours and practices. But the impression the Sami gave me was the opposite; they incorporated tourism as a new financial activity by making use of their local and traditional ecological knowledge. The Sami have been well known for their close relatedness to nature, and, thus, found in tourism an opportunity to continue their lifestyle close to nature and to make a way of living: “if we [the Sami] want to continue working with nature and being nature based, we have only three

¹ Although, in many areas, the number of reindeer has growth excessively leading to a great risk of over-grazing. Additionally, the social-ecological system in Lapland has been changed in recent times leaving a delicate and vulnerable natural environment with flora and fauna at risk. While there have been many blames of many parts, e.g. reindeer’s grazing the main reason or extensive forestry on the other hand, the cause goes beyond a solely source and it is expressed by the dynamics of a complex multi-interactions between regional changes in land use such as agriculture, forestry, hydroengineering, reindeer herding, road construction and traffic, and tourism, to mention some.

choices: reindeer herding, forestry, or tourism. Forestry is not ecological so it's time to try ecotourism", the Sami reindeer herder said.

The non-Sami entrepreneur, in contrast, is not native from the local area, and he has had to adapt and to deal that his local ecological knowledge is not that sharp, but always increasing as his time and experience in the areas increase, i.e. learning experience. He is specialist in tourist products such as adventure tourism, and, thus, the company becomes unique by combining adventure activities into the nature based tourism and can satisfactorily compete with the other companies. Most of the tourists as well visit those areas because of their interest about the Sami people, their traditions and culture. The Sami companies can incorporate their traditional knowledge and activities into their tours, as if the traditional knowledge were ordinary and expected to their activities, while the non-Sami company has to collaborate and establish Sami contacts when tourists are interested to experience Sami traditions. In turn, this calls for an environment of collaboration, as part of the business activities, where the small companies are willing to cooperate with and assists themselves in order to make their businesses more profitable by expanding the tourists' experience which, ultimately, will determine if the tourists will return again or, perhaps, promote the tourist place to their colleagues in their home countries.

6.4 Collaboration, Trust-Building and the Political Situation

The rapid progress of economic globalisation and the development of technical innovations has feverishly increased competition in the market. Thus, it is not surprising that many businesses have established some sort of collaboration with an external partner, namely a major company, a small or medium-sized enterprise, a governmental body or programme, or an education institution such as a university, in order to survive in the capitalistic economy. Moreover, collaboration among stakeholders has proven to be crucial to the success of natural resource management and, in recent years, a variety of methods have been developed to facilitate such collaboration (see Blumenthal and Jannink (2000) for a wide classification of these methods). Interestingly, in this study, this collaboration appears as a process by itself and not as a formal arrangement that had to be formally developed. Collaboration has found to be vital for the successful development of ecotourism in the area, as well for the profitability and survival of the small businesses. Mainly, we can identify collaboration occurring across three different levels.

6.4.1 Collaboration and networking with other companies

Collaboration and the establishment of a network with adjacent companies have boosted significantly the amount of tourists the company handles during a year, and, consequently, their profits. As it was mentioned (see Section 6.2), the companies with the most number of tourists per year showed to have developed a close link with other companies in the tourist industry, such as hotels and tourists agencies. This collaboration has deepened over the last few years and has provided to the ecotour businesses a reliable and consistent number of tourists. In turn, with this networking already settled and running, there is no need to make a lot of effort in advertising. In contrast, the other two small-size companies still need to build up a network of collaboration as they currently rely on the promotion that the tourists make when they are back home or when they are directed to these companies by, e.g., the tourist boards (see next section) or other ecotour companies. It is interesting to see that this collaboration occurs among the ecotour operators as well, even though one may think that they are competitors. As they have become specialists in certain ecotourism terrain, the companies, certainly, favour their own tours but can recommend other companies if they fall into the category of activities that the tourist wish to perform or if they, for some reason, are unavailable to provide services to the tourist. Ultimately, all the companies wish a pleasant stay for the tourist who, eventually, will or will not recommend the place and the people, or even return in a next holiday.

We have seen that collaboration with other companies is important, mainly, for the survival and economical profitability of the small businesses. Establishing a good network can provide an ecotour company a high and constant number of tourists every year. It becomes apparent that increasing the collaborative network for marketing purposes becomes unsustainable. But how much is enough? Right now the ecotourism business in the area is relatively small and just starting, and thus, as many tourists as possible seem not to make any harm. But later, and after impact assessment studies had been carried out in the area (see Section 3.4), it would then be necessary, not to stop the collaborative network but rather, to create a marketing–demarketing² model to cope with the increasing number of tourists. This, becomes somehow sensitive, as the model of demarketing should be morally

² In this sense, we use the economic definition (instead of the social one) where demarketing is considered a marketing strategy which objective is to decrease the consumption of a product (Dictionary of Marketing Terms. American Marketing Association).

and politically acceptable, not aiming to discourage tourists to visit the place nor raising prices so it becomes available for only few. At the moment, the demarketing notion was not circulating around the table of the ecotour businesses. And again, the Laponia World Heritage may act in this respect, in conjunction with the ecotourism organisation Naturens Bästa and the various stakeholders, in order to introduce new mechanisms for more protection for the natural heritage, which will lead to a new release and a reorganisation phase (see Section 2.3, 4.3 and 5.3).

6.4.2 Collaboration with governmental bodies

The network mentioned above with distinct companies within the industry is complemented with the governmental bodies in charge of promoting tourism in the area such as the tourist bureaus. Each municipality has its own tourist board which provides information of the tour operators and activities available in the area. When talking with the ecotour companies, all expressed that they consider more important the collaboration with other businesses rather than with the tourist boards. They felt that their leaflets simply remain in the tourist board shelves but also that it is not the responsibility of the tourist boards to promote their companies, and that the people visiting the bureaus were usually interested but without time and budget to hire the ecotour products. Unfortunately, this is a one-side story but it would be interesting to further research the links between the tourist boards and the ecotour operators.

There also exists collaboration with governmental programmes. Currently, there is a running programme called Laponia, which is a two year project with aim to promote ecotourism and its development within the Laponia World Heritage, which was named by UNESCO as a world heritage site in December 1996 (UNESCO website; see Section 5.3). The project's main goals are: to establish grounds for the development of ecotourism by capacitating the companies interested or already working in tourism around the area, to promote principles of sustainability and quality in the tours activities, and to advertise the area at the national and international levels (Interview with Laponia Project Manager 2005). Although the project has been a success and it has accomplished most of its objectives, some ecotour businesses consider that when the project is finished there will not be continuation and "the final outcome will be a webpage, and in few years we will only have an old webpage". There are also discrepancies in terms of the

conditions and terms for acquiring the ecotourism certificate. Two of the small-scale companies, the ones with the least number of tourists per year, stated that they consider the certificate to be very expensive and, although they believe they fulfil all the requirements in order to be certified, they will not, for the moment, aim to obtain it, but perhaps in the future when they have their tourism business more established, they consider that the certification is necessary. They also expressed their concern that the certification for ecotourism labelled is not performed at the local level and that it should rather encourage local initiatives instead of some external body determining if they comply or not with the given terms. The Sami reindeer herder added to this discussion that the certification process should also involve other stakeholders, principally, the local people. He also expressed his concern in a number of companies specialised in hunting bearing the “eco” label: “what ecological has the shooting of an elk for a tourist?” he pointed, “I could take many tourists for several seasons to watch the same elk instead, yet, I’m not ecotourism”. This serves as an argument for the need of a new certification which considers the local people for the labelling of the tourism industry that they want to have in their surroundings.

6.4.3 Collaboration with other stakeholders

The tourist activities that the companies provide in the area require, most of the times, extensive hiking and camping throughout the wilderness of Lapland. And, although in Sweden there is a law promoting and assuring free access to the country side for everybody (*Allemansrätten*) not only in public areas but also on private land, it is important that the tour operators come in contact with the communities and people in the vicinities where the excursion will pass by in order to assure that there is no problem or inconvenient in doing their trip. All the respondents mentioned that planning ahead and contacting the people around the areas they are having the trip is extremely important: “sometimes it’s not possible to visit a place because the reindeers are all around the area, other times the intention is to see reindeers so both ways we have to contact the people to see if there is no problem by having a tour there”. Many trips are cultural oriented and meeting Sami villages and families are essential part of the tours, and thus, establishing cooperation with the appropriate people becomes indispensable for the tour success. Of course those people become part of the tour and they get a share of the profits at the end of the day, but it was interesting to hear that all the respondents thought about this processes as collaboration rather than business partners or mere

people hired by their services. This way of thinking becomes an important aspect for achieving one of the most significant and extensively explored phenomenon by a variety of disciplines: trust.

6.4.4 Trust-Building and Politics

Trust has been identified as a key element, among others, associated with an enhanced collaborative and cooperative environment, a building block for successful conflict resolution – including mediation and negotiation, and, recently, with a successful management which may help to build resilience in a social-ecological system (Olsson, Folke & Berkes 2004). But how this trust is being affected by the sensitive political issues flooding the area, and more importantly, how is the tourist sector affected? Talking with the tourist operators, positions were varied. All the Sami entrepreneurs consider that the political situation of the land rights conflict had little to do with their tourist activities and they did not believe that affected the ecotour business. The reindeer herder mentioned that people are keener to accept the visit of a bunch of tourists in their yards than a bunch of reindeers. It seemed that the for the Sami working in ecotourism the political situation is seen as transcendental and they did point out that all the political enquiries should be better dealt with Sametinget or Saminuorra (the Sami Parliament and Sami youth organisation). In contrast, the non-Sami entrepreneur feels that the political issues have, certainly, affected significantly his work in the ecotour business. As a foreigner to the region, he has had to overcome difficulties that in his opinion were notably attenuated due to the political situation, mainly issues of respect and trust. For example, incorporating cultural tourism into his products became a difficult challenge, as his Sami counterparts did not see him as a trustworthy person but as an outsider competitor. First of all, he described how he had to win respect from the local villages and little by little gaining trust, and then could start collaborating with the Sami. “It was a long process” he continued, “and it got me into a few problems, people didn’t want me nearby their villages. But I’ve learnt from those mistakes. I have a better understanding and a good collaboration now”. In addition, the project manager of Laponia World Heritage commented that the political situation has had an impact in the initiatives of the authorities such as the Laponia project: “the initiatives are seen as not favourable, even if these are good and positive initiatives for all Sami and non-Sami, because they come from the authorities, it is more fighting instead of looking for the best alternatives”. Nevertheless, the Laponia project has showed that tourism can serve as a way

of unification, and for a better understanding about an area, its people and culture.

6.5 Ecotourism or Geotourism?

Through out this work we have seen some advantages and disadvantages of these two approaches to tourism, especially in chapter 4. It is clear that the kind of tourism reviewed here should be called ecotourism as it actively involves activities and products in relation with nature and wildlife, and its appreciation with environmental responsibility. We have also seen from section 4.1 that the ecotourism in the region has embraced some of the principles of geotourism by explicitly stating that the industry should support the local economy. However, supporting the local economy does not mean that the local people take active participation in the institutional arrangements, in the decision-making or in the forms of implementation. For example, we saw in section 6.4 some of the concerns of the two smallest firms about the certification process. The certification should also include the local stakeholders, as these should have a say about which tour companies they want to have in their surroundings. The Sami reindeer herder also told me that many of the locals, specially Sami communities, were not happy that companies dedicated to hunting are consider to be ecotourism and can carry their activities in the proximities where sometimes the reindeers pasture. It is important that at least the certification process considers the local people actively.

Another concern that was brought in the last section was about the increase of the industry and consequently the increase in number of tourists, and that at a later stage it would then be necessary to create a marketing–demarketing model. When that happen new measures will have to be implemented from the government, the Laponia World Heritage in conjunction with the ecotourism organisation Naturens Bästa. Again, these measures should be determined including the participation of the local stakeholders. The introduction of new constraints for the continuous development of the industry usually comes in taxation terms, this could mean that only the big companies are more suitable to offer better deals and in consequence the small-local firms will have to abandon the industry. These big or medium size companies may well follow all the ecotourism principles and even contribute to the local economy, but the opportunities for the small-local firms for continuing in the industry could be lost. The idea of having a

geotourism implies that all these issues should be also addressed locally. There can be many possibilities, for example that the local residents are allowed to run the businesses, or at least have a partnership with an agreed percentage, or the introduction of tradable quotas, where each tour operator has an allowed number of tourists to provide services and when the quota is reached, the big companies could buy the remaining quotas from other business when agreed. Anyhow, every decision of the industry should have backup and strong support from the locals, and that is why a geotourism is needed.

6.6 A Natural Adaptive Comanagement

We are living in a world with irregular changing conditions at different social and ecological levels and across different spatial and temporal scales. Learning how to deal with this complexity and the possibility to adapt or to even transform, when needed, become desirable properties in a system. These properties are natural features of certain kind of complex systems that adapt and coevolve with other complex systems (Kauffman 1993). We have seen how the Sami ventured into ecotourism moving from reindeer herding or some other activity taking advantage of their own skills and knowledge to be successful in the new industry, and very importantly, to preserve their lifestyle of working close to nature, choosing to keep their traditions and culture and exercising them in another way. This capacity of the people to adapt, i.e. adaptability, and to transform, i.e., transformability, and re-organise themselves when a window of opportunity is opened can be considered as emergent properties of this particular system. Moreover, self-organisation arises when individuals cooperate to create emergent outcomes (Highsmith 2000), and we have seen that collaboration exists across three different levels for instance with other enterprises (Section 6.4.1), governmental bodies (Section 6.4.2) and other local stakeholders such as local private land owners, Sami communities and villages (Section 6.4.3). Also, this collaboration appears emerging and developing naturally. The reason may be the deep integration of humans into the ecosystem, as an ideology of ancient cultures. While the western-modern man is isolated from the environment and deep alienated from nature.

It could be surprising for many (westerners) that cooperation happens naturally and they may wonder what about the competition and other selective forces. I completely understand that point because most of the times we are thought in school that in the real world is all about survival of the

fittest, satisfaction of own needs, fierce competition between individuals, etc. How do we learn that? Well, teachers gives us lessons about game theory in a way that encourage us to think of life as a competitive game, to think that game theory is about selfishness and greed to increase wealth by maximising gains (von Neumann 1947). They teach us Darwin's natural selection as survival of the fittest buffeted by blind selective forces. Barzun has well pointed that despite Darwin's theory has the clothe with the full dignity of a scientific theory, people use it with the emphasis on competition between individuals and the implied superiority of the 'favoured races' in the struggle for life, the economic exploitation of the masses as for the colonisation and oppression of 'inferior' races, all this on basis of natural law (Barzun 1958). We also were thought about Freud and his savage, patricidal primal horde, where he believed in the person as a social atom requiring community only as a means to the satisfaction of his needs (Brown 1961). Those theories have already been questioned and are no longer the authority in their respect (see above references), nevertheless, most of the present generations were raised and are still being raised with them.

In the late nineteenth century, Kropotkin questioned Darwin's *Origin of Species* and began to study flora and fauna in Siberia in order to find evidence of this intraspecific competition. His studies found that despite there was indeed extreme severity of struggle for existence against inclement nature (as expected in Siberia), there was no struggle for existence against one another, even under the most abundant animal life (Kropotkin 1902). He later suggested that cooperation is more natural than coercion after documenting numerous examples of mutual aid and mutual support among animal throughout the animal kingdom. Many years later Allee re-examined Kropotkin's work and provided abundant evidence that cooperation occurs as a natural phenomena and that sociality is universal (Allee 1951). The relative lack of competition and strife in most traditional cultures have also long impressed anthropologists (Mead 1961). Kropotkin, and neo-Darwinists such as Bateson, inverted cause and effect in trying to explain why cooperation or mutual aid could have evolved by natural selection (Bateson 1988). This study adjoins to those ones suggesting that cooperation occurs as a natural process, but suggests that in order to happen the society must be consider itself as integral part of the ecosystem and not alienated from nature. Indigenous cultures, such as the Sami, with a long-standing traditional ecological knowledge are the most prone to develop and exhibit these features.

It has been suggested that an adaptive comanagement is an appropriate managerial strategy for building resilience in social-ecological systems (Olsson, Folke & Berkes 2004). Adaptive comanagement has been defined in many ways by different authors, but mainly, it has to do with a learning process, which may or not be systematic, for continually improving managerial practices – customs, traditions, policies, planning, development, or administration – and continuously learning from the outcome of these practices, with the characteristic of being participatory, inclusive and plural. It may or not be systematic because it can be developed through structural arrangements in the system, but it can also emerge as a natural self-organised property of the ecosystem. Folke and others (2002, p.20) define adaptive comanagement as a process by which institutional arrangements and ecological knowledge are tested and revised in a dynamic, ongoing self-organised process of trial-and-error. In their definition, institutional arrangements such as enabling legislation to create the institutional spaces for this type of management, funds for responding to environmental change, information flow through social networks and treating policies as hypothesis and management as experiments are considered essential conditions for building an adaptive comanagement (Olsson, Folke & Berkes 2004). However, this study suggests that an adaptive comanagement can also emerge as a possibility of self-organisation in a complex adaptive system, and that is what I have been able to appreciate from this investigation in Lapland, how an adaptive comanagement has been shaping through the years and how some emergent and important features can be appreciated such as adaptability, collaboration, and a management of learning-by-doing, where the traditional ecological knowledge has been tested and revised in an ongoing self-organised process. I have said “an” adaptive comanagement because I believe there are many kinds with similar characteristics and properties but also different in form and shape.

Finally, we may ask why all these so desirable properties in management strategies emerge naturally in these cases and, moreover, the Sami people remain as the cultural group they have always been? The answer may lie within an *order-for-free memory* of the social-ecological system. The idea that ecosystems retain a memory, in the sense that the accumulation and capacity of past states or experiences of the system influence present or future responses in the ecosystem, is not new. It had generally been always implicit in ecology (Margalef 1961; Warner and Chesson 1985), and more recently explicit in the Gaia theory (Lovelock 1988; Harger 1994) as well as in ecology

(Padisak 1992; Nyström and Folke 2001). Folke et al (2003) have opted to express this notion as the social-ecological memory of the social-ecological system.

Knowledge, moreover its acquisition and the understanding of ecosystem processes are extremely complex phenomena, and they occur only as a continuous learning process. The progression and accumulation of this knowledge is deepen and stronger, or even resilient, as longer periods of time elapse with the people remaining in the ecosystem, i.e., for many generations. This knowledge, with its long implementation in form of traditional customs, is then preserved in the social-ecological memory, and continuing to be articulated by the traditional practices and local knowledge. The Sami have been present in Lapland for immemorial times and, thus, this collective knowledge embeds into their managerial practices and into their ability to respond not only to the ecological ecosystem changes but as well to the social ones and yet, preserve their identity as an indigenous group, and their traditions and customs. For this reason I have decided to call this long standing memory full of traditional knowledge and custom an order-for-free memory. As we saw from section 2.2, this is the principle of *homeostasis*³ in Kauffman models (Kauffman 1996), where the evolution of many complex systems have convergent flow, which means stability to perturbations. If the complex system exhibits convergent rather than divergent flow, so that it shows an inherent homeostasis, it is called order for free (*Ibidem*). That is why I have mentioned the emergence of a natural adaptive comanagement, or a self-organised order-for-free organisation of the social-ecological system, which Nature has shaped to that form probably because of the order-for-free memory of the social-ecological system, and which continues to be nurtured, maintaining convergent flow and homeostasis, by making use of traditional knowledge and customs.

³ Walter Cannon coined this term in 1932 to describe the tendency that humans and animals keep a constant temperature whatever the temperature of the surroundings (Cannon 1932).

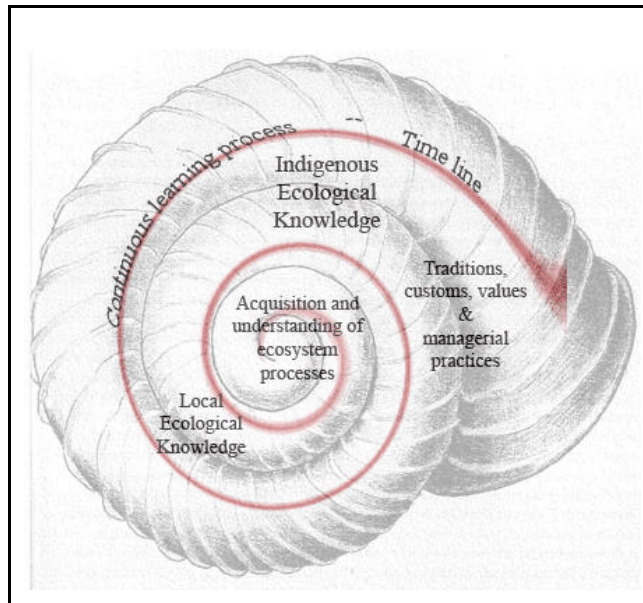


Fig. 6.4. Model of the social-ecological integral memory.

One example of order for free in nature can be appreciated in the structure of a nautilus seashell. A model of the order-for-free memory is presented in Figure 6.4 where the seashell is used to represent a self-organised order-for-free, a spontaneous order emerging from deep underlying structure which can be considered an emergent property in some kinds of social-ecological complex in nature. In addition, Kauffman argues that these kinds of systems, the ones showing inherent homeostasis and possibly natural selection shaping their structure, will provide us with a macroscopic law that defines ecosystems (Kauffman 1993; 1996).

6.6 Tourism as a Positive Force

The above discussions can indeed make us believe that tourism not only can be managed in a way that minimises its negative impacts, but it can become a positive force which would enhance the positive impacts of the tourist industry described in chapter 3. However, this can only apply to this study in the area and, perhaps, generalised to a small-scale tourist industry worldwide. Nevertheless, I believe it is possible but in order for this to happen, the new tourism, just as the 'new' management (Ludwig 2001), needs to change its approach from optimisation to adaptation, and to consider uncertainties and complicated environmental problems as intrinsic part of tourist destinations, i.e., as complex set of social-ecological systems behaving as adaptive cycles

(Gunderson and Holling 2002) or tourism panarchies (Farrel and Twinning-Ward 2004). It should move from the reductionist science to accommodate itself towards a more holistic debate of what is being called 'sustainability science' (Kates et al 2001). It should adopt all the sustainability principles already achieved within ecotourism (see Section 4.1) and take them farther to ensure that tourist development not only contributes to the local livelihoods within all sustainability dimensions (economic, social-cultural, and environmental) as geotourism explicitly recognises, but as well to make the local people part of the decision-making. And so, this new tourism will also have to rethink collaboration and partnership (Hall 1999), as we have seen that they have proven important features within the study, as well as to demonstrate the capacity of learning and adaptation (Folke et al 2002) and to consider as an essential aspect the adhesion of the local and traditional knowledge into its philosophy, as we have also been able to observe that all of these are fundamental and vital characteristics. Tourism can, certainly, serve as a positive driver for sustainability; however, it now faces the big challenge of transferring all these principles into the mainstream of the industry.

Chapter 7

Conclusions

During the elaboration of this thesis I had a sceptic view about the state of affairs of tourism within the sustainability discourse. This scepticism was mainly attained from my own experiences of travelling, and although, the sustainability speech can be found everywhere, in almost any industry, at least in paper, the reality usually exhibits something very different. This work has suggested, by reviewing the existing literature in sustainable tourism (Chapter 4), that in theory as well as in the empirical world it is possible to find constructive forms of tourism that not only try to minimise negative impacts on the environment but also try to serve as positive forces bringing benefits in many regards to the society. And, as asserted in the hypothesis (Section 1.3), some of these forms where indigenous cultures are present making use of their traditional ecological knowledge.

In summary, I would like to say that throughout this work, I have tried to outline the progression of the tourism thinking towards a more holistic perspective. The positive and negative impacts of the industry had also been summarised in chapter 3, and have been provided as a starting point to indicate that current management practices in the industry have not been sufficient for providing a shift towards sustainability, nevertheless, positive and constructive forms of tourism can be found out there, such as these case studies. The current debate of tourism and sustainability has been presented in chapter 4 adding a small contribution of the advantages of a new form of tourism, namely geotourism. Butler's tourist area life cycle has been reviewed and compared to the adaptive cycle of Gunderson and Holling (Section 4.3). Ecotourism in Lapland is a very young industry where growth and exploitation phase (r) is taking place, with the Laponia World Heritage becoming a new arena where protection measures for cultural heritage appear vis à vis with conflicts and issues of power structures (Ω and α). The study presented here (Chapter 6), even it has been a rather small sample, suggests that ecotourism can indeed have positive impacts at the local level. However, this industry is very young and a proper impact assessment still needs to be

carried out in order to confirm these affirmations (Section 3.4). This study also adds to those ones suggesting that characteristics such as collaboration across different levels (Section 6.4), trust (Section 6.4.4), and the incorporation of local and traditional ecological knowledge (Section 6.3) are essential aspects for a successful management in tourism towards sustainability, and fundamental as part of an adaptive comanagement system (Section 6.5). The underline reason that this ecotourism cases are accomplishing the shift towards a more sustainable form of tourism is suggested to be the result of the long and standing traditional collective knowledge, residing in the form of an order-for-free memory, that embeds into the managerial practices of the Sami people as well as to the ability to respond to the social and ecological changes in the system. I attribute this to the principle of homeostasis and the evolution of complex adaptive systems and called this development as a natural adaptive comanagement, exhibiting convergent flow and stability to perturbations (Section 6.5). This may explain why the Sami people have prevailed as an identity group and have not been assimilated by the Swedish modern society. But what about the non-Sami entrepreneur? He has decided to enter this system, to embrace the traditional ecological knowledge and to put his trust on it. If this trust is reciprocal with the other members of the ecosystem, a collaboration environment will arise. He then starts a process where the acquisition of ecosystems processes takes place and his local ecological knowledge is strengthen (see Fig. 6.4). This study also suggests that a social-ecological system in which the local people with a strong local and traditional knowledge are integral and take active part in the dynamics of the ecosystem, becomes more flexible and capable of resist, enhance, adapt, or even transform. Finally, some challenges of creating this positive form of tourism are briefly summarised in section 6.6. Challenges that, particularly, will increase when trying to in incorporate local and traditional knowledge in planning and policy making.

This study joins those stating that the inclusion and consideration of the local livelihoods with their traditional customs and knowledge – not only in paper as seen in international conventions and agreements, but also in reality – is vital in the quest for a sustainable management of natural resources. In conclusion, I would like to say that, probably sustainable tourism is a utopia, a *continuum infinitum meta*. There are only ways to make tourism better and more sustainable. The tourist industry can certainly move closer to sustainability under the current international and political regime. This shift will also need better institutional arrangements at the national and global scales. However,

market forces rule in our society, which means that the tourists are deciding, by voting with their expenditures, where the industry is heading. The real change in the industry will not occur by modifying only the tourism management (the supply side), as we have seen in this work, but when the tourists (the demand side), like you and me, improve as well their own behaviour and attitude, and that represents another big and massive challenge to be as soon as possible addressed.

References

- Ackoff, R.L., 1974. *Redesigning the Future*. John Wiley & Son, Inc. New York.
- Aledo, A., Mazon, T., 2004. Impact of residential tourism and the destination life cycle theory. In Pineda, F.D., Brebbia, C.A., Mugica, M. (eds.) 2004. *Sustainable Tourism*. WIT Press.
- Allee, W.C., 1951. *The Social Life of Animals*. The Book Club, London.
- Aksenov, D., Karpachevskiy, M., Lloyd, S., Yaroshenko, A., 1999. *The Last of the Last: The Old-growth Forests of Boreal Europe*. Taiga Rescue Network. Online: <http://www.taigarecue.org/_v3/files/pdf/35.pdf> [Accessed 29-03-2005].
- Ashley, C., Roe, D., 1998. "Enhancing community involvement in wildlife tourism: Issues and challenges". *Wildlife Development Series* No 11. London IIED.
- Barkin, D., 1996. *Ecotourism: A Tool for Sustainable Development*, in Planeta.com: <<http://www.planeta.com/planeta/96/0596monarch.html>> [Accessed 21-03-2005].
- Barzun, J., 1958. *Darwin, Marx, Wagner*. Doubleday Anchor, New York.
- Bateson, P., 1988. The biological evolution of cooperation and trust. In Gambetta, D. (ed). *Trust: Making a breaking cooperative relations*, 14-30. Blackwell, Oxford.
- Beeh, J.E., 1999. Adventure vs Ecotourism: Environmental Impacts of the so-called Ecotourist Activities. *Earth Action Network, Inc.* 10(3), 46-48.
- Bengtsson, J., Angelstam, P., Elmqvist, T., Emanuelsson, U., Folke, C., Ihse, M., Moberg, F., Nystrom, M., 2003. Reserves, Resilience and Dynamic Landscapes. *Ambio* 32, 389-396.
- Berkes, F., 1993. "Traditional Ecological Knowledge in Perspective" in Inglis, J.T., *Traditional Ecological Knowledge: Concepts and Cases*. International Program on Traditional Ecological Knowledge, International Development Research Centre. Ottawa, Canada.
- Berkes, F., Mathias, J., Kislalioglu, M., Fast, H., 2001. The Canadian Arctic and the Oceans Act: The development of participatory environmental

- research and management. *Ocean & Coastal Management* 44: 451-469.
- Berkes, F., Folke, C., Colding, J. (eds.), 2003. *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change*, Cambridge University Press.
- Blumenthal, D., Jannik, J.L., 2000. A Classification of Collaborative Management Methods. *Conservation Ecology* 4(2):13. Online: <<http://www.ecologyandsociety.org/vol4/iss2/art13/>> [Accessed 10-05-2005]
- Borchert, N., 2001. *Land is Life: Traditional Sami Reindeer Grazing Threatened in Northern Sweden*. Fields, Kenyon (ed). Online: <<http://www.oloft.com/landislife.pdf>> [Accessed 19-03-2005].
- Bramwell, B., Henry, I., Jackson, G., Prat, A., Richards, G., van der Straaten, J., (eds.) 1996. *Sustainable Tourism Management: Principles and Practice*. Tilberg University Press.
- Brown, J.A.C., 1961. *Freud and the Post-Freudians*. Pelican, Harmondsworth.
- Buckley, R., 2003. Environmental Inputs and Outputs in Ecotourism: Geotourism with a Positive Triple Bottom Line? *Journal of Ecotourism* Vol. 2 No. 1: 76-81.
- Butler, R., 1980. The concept of a tourist area cycle of evolution: implications for the management of resources. *Canadian Geographer* 24, 5-12.
- Butler, R., 1999. Sustainable Tourism: A State of the Art Review. *Tourism Geographies* 1(1):7-25.
- Cannon, W., 1932. *The Wisdom of the Body*. W.W. Norton, New York.
- Carney, D. (ed.), 1998. *Sustainable Rural Livelihoods: What contributions can we make?* London: DFID.
- Constanza, R., Segura, O., Martinez-Alier, J. (eds), 1996. *Getting Down to Earth: Practical Applications of Ecological Economics*. Washington DC: International Society for Ecological Economics.
- Convention on Biological Diversity (CBD): *Guidelines on Biodiversity and Tourism development*. Online: <<http://www.biodiv.org/programmes/socioeco/tourism/guidelines.asp>> [Accessed 19-03-05].

- Davies, T., Cahill, S., 2000. *Environmental Implications of the Tourist Industry*. Discussion Paper 00-14 Resources for the Future, March 2000. Online <<http://www.rff.org/>>.
- Dent, E.B., 1999. Complexity Science: A Worldview shift. *Emergence*. 1, 4:5-15.
- European Union; European Commission; Enterprise and Industry: EUROPA – Enterprise – SME Definition. <http://europa.eu.int/comm/enterprise/enterprise_policy/sme_definition/index_en.htm> [Accessed 27-04-2005].
- Ewing, K., O'Shea, D., Putignano, M., Sutton, R., 2002. *Social Science Research Skills*. Ontario Family Studies Home Economics Educators Association <<http://www.ofsheea.ca>>.
- Farrel, B., Twining-Wars, L., 2004. Reconceptualizing Tourism. *Annals of Tourism Research*. Vol.31. No. 2: 274-295.
- Farrell, B., Twining-Wars, L., 2005. Seven Steps Towards Sustainability: Tourism in the Context of New Knowledge. *Journal of Sustainable Tourism*. Vol. 13. No. 2: 109-122.
- Folke, C., Carpenter, S., Elmqvist, T., Gunderson, L., Holling, C.S., Walker, B., 2002. Resilience and Sustainable Development: Building Adaptive Capacity in a World of Transformations. *Ambio* Vol. 31. No. 5: 437-440.
- Folke, C., Colding, J., Berkes, F., 2003. "Synthesis: building resilience and adaptive capacity in social-ecological systems". In Berkes, F., Colding, J., Folke, C. (eds), (2003). *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change*. Cambridge University Press.
- Gell-Mann, M., 1994. *The Quark and the Jaguar: Adventures in the Simple and the Complex*. W H Freeman.
- Gell-Mann, M, 1995. "Plectics". In Brockman, J. (1995) *The Third Culture: Beyond the Scientific Revolution*. Simon & Schuster Inc.
- Guardian Newspaper. The Guardian: Guardian Unlimited: Money: Special Reports. *Do try this at home*. March 11, 2004. U.K. Online: <<http://money.guardian.co.uk/ethicalliving/story/0,13437,1166929,00.html>> [Accessed 20-05-2005].
- Gunderson, L.H., Holling, C.S. (eds.), 2002. *Panarchy: Understanding Transformations in Human and Natural Systems*. Island Press, Washington, D.C.

- Hahn, T., 2000. *Property Rights, Ethics and Conflict Resolution: Foundations of the Sami Economy in Sweden*. Doctoral Dissertation, Swedish University of Agricultural Sciences, Uppsala, Sweden.
- Haken, H., 1978. *Synergetics*. Springer, Berlin.
- Hall, M.C., 1999. "Rethinking Collaboration and Partnership: A Public Policy Perspective". *Journal of Sustainable Tourism* Vol. 7, Nos 3&4: 274-289.
- Hanneman, R.A., 2005. *Spatial Dynamics of Human Populations: Some Basic Models*. Department of Sociology, University of California, Riverside. Online: <<http://faculty.ucr.edu/~hanneman/spatial/intro.html>> [Accessed 14-09-2005].
- Harger, J.R.E., 1994. Traditional beliefs and regional approaches to environmental preservation. Earthwire Workshop, Indonesia 11-15 April. Online: <<http://www.geocities.com/rainforest/Vines/2058/gaiastor.htm>> [Accessed 10-08-2005].
- Hartmanis, J., Stearns, R., 1965. On the computational complexity of algorithms. *Transactions of the American Mathematical Society*. 117: 285-306.
- Highsmith, J.A., 2000. *Adaptive Software Development: A Collaborative Approach to Managing Complex Systems*. Dorset House Publishing.
- Holland, J.H., 1992. *Adaptation in Natural and Artificial Systems: An Introductory Analysis with Applications to Biology, Control and Artificial Intelligence (Complex Adaptive Systems S.)*. MIT Press.
- Holling, C.S., 1986. "The resilience of terrestrial ecosystems, local surprise and global change" in Clark, W.C., Munn, R.E. (eds.) *Sustainable Development of the Biosphere*. Cambridge University Press, U.K. 292-317.
- Holling, C.S., 2001. Understanding the complexity of economic, ecological and social systems. *Ecosystems* 4, 390-405.
- Holling, C.S., Schindler, D.W., Walker, B.W., Roughgarden, J., 1995. "Biodiversity in the functioning of ecosystem: an ecological synthesis" in Perrings, C.A., Mäler, K.G., Folke, C., Holling, C.S., Janson, B.O. (eds.) *Biodiversity Loss. Economic and Ecological Issues*. Cambridge University Press, U.K. 44-83.

- Hose, T.A., 1995. Selling the Story of Britain's Stone. *Environmental Interpretations* 10, 2:16-17.
- Hunter, C., 1005. On the Need to Re-Conceptualise Sustainable Tourism Development. *Journal of Sustainable Tourism* 3(3):155-165.
- Icehotel AB: Företag ICEHOTEL AB. <<http://www.icehotel.com>> [Accessed 27-04-2005].
- Interactive Forests Maps. Last Frontier Forest: Interactive Forest Maps. World Resource Institute: Forest Frontiers Initiatives. Online <http://multimedia.wri.org/frontier_forest_maps/> [Accessed 20-07-2005].
- Josefsen, E., 2003. *The Sami and the National Parliaments: Channels of Political Influence*. Resource Centre for the Rights of Indigenous People. Online<<http://www.galdu.org/govat/doc/politicalinfluenceevajosefsen.pdf>> [Accessed 19-03-2005].
- Johnston, A., 2004. "Throwing Caution to the Wind: The Fiasco of the CBD Tourism Guidelines" in *Eco: The Voice of the NGO Community in the International Environmental Conventions*. Vol. 8, Issue 8. February 18, 2004. Online: <<http://www.itdg.org>>.
- Kates RW, Clark WC, Corell R, Hall JM, Jaeger CC, Lowe I, McCarthy JJ, Schellhuber HJ, Bolin B, Dickson NM, Faucheux S, Gallopin GC, Grubler A, Huntley B, Jäger J, Jodha NS, Kasperson RE, Mabogunje A, Matson P, Mooney H, More III B, O'riordan T and Svedin U. 2001. *Sustainability science*. Science 292: 641-642.
- Kauffman, S.A., 1993. *The Origins of Order: Self Organization and Selection in Evolution*. Oxford University Press.
- Kauffman, S.A., 1995. "Order for Free". In Brockman, J. (1995) *The Third Culture: Beyond the Scientific Revolution*. Simon & Schuster Inc.
- Kauppila, P., 1995. The Tourist Area Life Cycle: A Case Study of the Ruka Ski Resort in North-Eastern Finland. *Nordia Geographical Publications* 24:1.
- Küffer, C., 2005. *Transdisciplinarity*. Swiss Academy of Natural Sciences. Online <http://www.transdisciplinarity.ch/bibliographie/Transdis_e.html> [Accessed 10-09-2005].

- Kvale, S., 1996. *Inter Views: Introduction to Qualitative Research Interviewing*. Sage Publications (USA).
- Laponia World Heritage <<http://www.laponia.nu>> [Accessed 11-05-2005].
- Levin, S., 1999. *Fragile Dominion: Complexity and the Commons*. Reading MA: Perseus Books.
- Lewin, K., 1951. *Field Theory in Social Science*. New York: Harper.
- Lorenz, E.N., 1963. Deterministic nonperiodic flow. *Journal of Atmospheric Sciences*. 20:130-141.
- Lovelock, J., 1988. *The Ages of Gaia: A Biography of Our Living Earth*. Oxford University Press.
- Ludwig, D., 2001. The era of management is over. *Ecosystems* 4: 758-764.
- Margalef, R., 1961. Communication of structure in planktonic populations. *Limnology and Oceanography* 6, 124-128.
- McAllister, J.W., 2002. "Historical and Structural Approaches in the Natural and Human Sciences" in Tindemans, P., Verrijn-Sturat, A., Visser, R. (eds.) *The future of the sciences and humanities: Four analytical essays and a critical debate on the future of scholastic endeavour*. 19-54. Amsterdam University Press.
- Mead, M. (ed.), 1961. *Cooperation and Competition Among Primitive*. Beacon Press, Boston.
- Mebratu, D., 1998. "Sustainability and Sustainable Development: Historical and Conceptual Reviews". *Environmental Impact Assessment Review* 18:493-520.
- Middleton, V.T.V, Hawkins, R., 1998. *Sustainable Tourism: A Marketing Perspective*. Butterworth-Heinemann, Oxford.
- Millennium Ecosystem Assessment, 2005. *Ecosystems and Human Well-Being: Synthesis Report*. March, 2005. Island Press. Online: <<http://www.millenniumassessment.org/en/Products.Synthesis.aspx>>.
- Moss, S.E., Ryan, C., Wagoner, C.B., 2003. An Empirical Test of Butler's Resort Product Life Cycle: Forecasting Casino Winnings. *Journal of Travel Research*, 41:393-399.

- Mowforth, A., Munt, I., 1998. *Tourism and Sustainability: New Tourism in the Third World*. Routledge, London. U.K.
- Naisbitt, J., 1994. *Global Paradox*. Nicholas Brealey, London.
- National Geographic Society: Sustainable Tourism Resource Center. *Geotourism Principles*. <<http://www.nationalgeographic.com/travel/sustainable/pdfs/geoprinciples.pdf>> [Accessed 22-03-2005].
- Naturen's Bästa, 2002. *Naturen's Bästa Criteria Document: Six Basic Principles*.
Online:
<http://ekoturism.perlin.nu/illustrationer/fil_20050123225732.pdf>
[Accessed 20-04-2005].
- Neil, J., Wearing, S., 1999. *Ecotourism*. Butterworth-Heinemann Publishers.
- New Scientist Magazine. New Scientist Breaking News: *Massive growth of ecotourism worries biologists*. March 4, 2004. Online:
<<http://www.newscientist.com/article.ns?id=dn4733>> [Accessed 20-05-2005].
- Nordic Council of Ministers, 2001. *Towards a Sustainable Nordic Tourism*. TemaNord. 546p.
- Nordic Council of Ministers, 2003. *Towards a Sustainable Nordic Tourism: An integrated strategy for the sustainable development of tourism in the Nordic Arctic*. TemaNord. 65p.
- Nyström, M., Folke, C., 2001. Spatial resilience of coral reefs. *Ecosystems*, 4, 406-417.
- Olsson, P., Folke, C., 2001. Local ecological knowledge and institutional dynamics for ecosystem management: a study of Lake Racken watershed, Sweden. *Ecosystems* 4:85-104.
- Olsson, P., Folke, C., and Berkes, F. 2004. Adaptive co-management for building resilience in social-ecological systems. *Environmental Management Vol 34*, No 1, 75-90.
- Padisak, J., 1992. Seasonal succession of phytoplankton in a large shallow lake (Balaton, Hungary) – a dynamic approach to ecological memory, its possible role and mechanisms. *Journal of Ecology*, 80, 217-230.
- Patton, M., 1999. "Enhancing the Quality and Credibility of Qualitative Analysis", *Health Services Research*, 34 (5), 1189-1208.

- Patzak, M., 1999. Tourism and Geodiversity: The Case of Geoparks. Working Paper. Online: <<http://egis.cefe.cnrs-mop.fr/Tourism%20Frontpages/patzak%20article.htm>> [Accessed 18-01-2005].
- Peacock, J.L., 2001. *The Anthropological Lens: Harsh Light, Soft Focus*. Cambridge University Press.
- Robinson, M., 1999. "Tourism and culture: rethinking the mix" in *UNESCO The Courier*. July/August 99 issue 21-56. UNESCO, Paris.
- Rosenhead, J., 1998. Complexity Theory and Management Practice. *Human Nature*, Online: < <http://human-nature.com/science-as-culture/rosenhead.html>> [Accessed 10-09-2005].
- Sametinget, 2005. *The Sami – an Indigenous People in Sweden*. The National Sami Information Centre.
- Samentingslag av 1992 (SES 1992: 14333) [The Sami Parliament Act].
- Scheffer, M., Carpenter, S., Foley, J.A., Folke, C., Walker, B., 2001. Catastrophic shifts in ecosystems. *Nature* 413, 591-596.
- Seale, C., Gubrium, J.F., Silverman, D., Seal, C., Gobo, G. (eds.), 2003. *Qualitative Research Practice*. Sage Publications Ltd.
- Shah, K., 2000. "Tourism, the poor and other stakeholders: Asian experience". *ODI Fare Trade in Tourism Paper*. London: ODI.
- Smith, T.W., 1999. Developing nonresponse standards. *International Conference on Nonresponse*. Online: <<http://www.norc.uchicago.edu/online/nonre.htm>> [Accessed 26-04-2005].
- Statens Offentliga Utredningar (SOU), 1999:25. *Samerna – et ursprungsfolk i Sverige* [Swedish Official Report 1999:25. The Sami – an indigenous people in Sweden].
- Strauss, A., Corbin, J., 1999. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Sage Publications (USA).
- Svenska Touristföreningen (STF) [Swedish Tourist Organisation]. <<http://www.stfturist.se>> [Accessed 28-04-2005].
- Swarbrooke, J., 1999. *Sustainable Tourism Management*. CABI Publishing, Oxon, U.K.

- Tashakkori, A., Teddlie, C., 1998. *Mixed Methodology: Combining Qualitative and Quantitative Approaches (Applied Social Research Methods S.)*. Sage Publications (USA).
- Tengö, M., 2004. *Management Practices for Dealing with Uncertainty and Change: Social-Ecological Systems in Madagascar and Tanzania*. Doctoral Dissertation, Department of Systems Ecology, Stockholm University, Sweden.
- Travel Industry Association of America (TIA), 2002. *The Geotourism Study: Phase I Executive Summary*. National Geographic Traveler. Online: <<http://www.tia.org/survey.pdf>>.
- United Nations Environment Programme (UNEP), 1999. *Addendum C: Tourism and Environmental Protection*. Contribution of the United Nations Environment Programme to the Secretary-General's Report on Industry and Sustainable Tourism for the Seventh Session of the Commission for Sustainable Development. Online: <<http://www.uneptie.org/pc/tourism/documents/csd.pdf>>.
- United Nations Environment Programme (UNEP) Tourism, 2002. The Local Agenda 21 Approach. Online: <http://www.uneptie.org/pc/tourism/policy/agenda_21.htm> [Accessed 14-04-2005].
- United Nations Environment Programme (UNEP) Tourism: Sustainable Tourism: Economic Impact of Tourism. Online: <<http://www.uneptie.org/pc/tourism/sust-tourism/economic.htm>> [Accessed 15-04-2005].
- United Nations Educational, Scientific and Cultural Organization (UNESCO): Geoparks: International Network of Geoparks. <<http://www.unesco.org/science/earthsciences/geoparks/geoparks.htm>> [Accessed 20-04-2005].
- United Nations Educational, Scientific and Cultural Organization (UNESCO), 1996. *World Heritage: Laponia Area*. <http://whc.unesco.org/pg.cfm?cid=31&id_site=774> [Accessed 11-05-2005].
- Visintin, A., 1994. *Differential Models of Hysteresis*. Springer-Verlag Berlin.
- Von Bertalanffy, L., 1968. *General Systems Theory*. George Braziller, New York.
- Von Neumann, J., Morgenstern, O. 1947. *Theory of Games and Economic Behavior*. Princeton.

- Walker, B., Carpenter, S., Anderies, J., Abel, N., Cumming, G.S., Janssen, M., Lebel, L., Norberg, J., Peterson, G.D., Pritchard, R., 2002. "Resilience Management in Social-Ecological Systems: a Working Hypothesis for a Participatory Approach". *Conservation Ecology* 6(1): 14.
- Walker, B., Holling, C.S., Carpenter, S., Kinzig, A., 2004. Resilience, Adaptability and Transformability in Social-Ecological Systems. *Ecology and Society* 9(2):5.
- Warner, R.R., Chesson, P.L., 1985. Coexistence mediated by recruitment fluctuations: a field guide to the storage effect. *American Naturalist*, 125, 769-787.
- Weaver, D., Lawton, L., 1999. *Sustainable Tourism: A Critical Analysis*. CRC Griffith University, Queensland.
- Weinberg, G.M., 1975. *An Introduction to General Systems Thinking*. Wiley-Interscience.
- Weisstein, E.W., 1999. "Attractor" from *MathWorld*, a Wolfram Web Resource. Online <<http://mathworld.wolfram.com/Attractor.html>> Accessed [10-09-2005].
- Wheeller, B., 1993. Sustaining the ego. *Journal of Sustainable Tourism* 1, 121-129.
- Wiseman, F., 2003. On the Reporting of Response Rates in Extension Research. *Journal of Extension* 4:3.
- Wood, M.E., 2004. "Chat discussion with the founder and CEO of The International Ecotourism Society". Interview performed 20-12-2004.
- Wondoloeck, J. M. and Yaffee, S. L., 2000. The Promise and Challenge of Collaboration in Resource Management. *Making Collaboration Work*. Chapt. 1-3. Island Press, Washington, DC. pp 3-68.
- World Boreal Forest:: borealforest.org *Overview*. <http://www.borealforest.org/index.php?category=world_boreal_forest&page=overview> [Accessed 03-04-2005].
- World Commission on Environment and Development (WCED), 1987. *Our Common Future*. Oxford University Press.
- World Ecotourism Summit, 2002: *Québec Declaration on Ecotourism*. <[72](http://www.world-</p>
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tourism.org/sustainable/IYE/quebec/anglais/declaration.html>
[Accessed 21-03-2005].

World Tourism Organization, 2004. *Sustainable Development of Tourism Conceptual Definition*. Online: <<http://www.world-tourism.org/sustainable/concepts.htm>> [Accessed 20-05-2005].

World Travel & Tourism Council (WTTC): Homepage. <<http://www.wttc.org/>> [Accessed 18-03-2005].

World Travel & Tourism Council (WTTC), 2004: *The 2004 Travel & Tourism Economic Research*. <<http://www.wttc.org/2004tsa/PDF/World.pdf>> [Accessed 18-03-2005].

World Travel & Tourism Tax Policy Center: Economics of Travel & Tourism Taxes. <<http://www.traveltax.msu.edu/intro/issues/part2.htm>> [Accessed 20-04-2005].

Yin, R., 1994. *Case Study Research*. Sage Publications, Beverly Hills, CA.