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# 3 Nature conservation and rural areas

## 3.1 Introduction

*'Environmental characteristics remain a powerful and pertinent basis for rural distinctiveness, whether in terms of relations between rural and urban areas, with respect to individual and collective presentations of rurality and rural identity, or in biological resource that non-urban zones represent'*  
(Hoggart, et al., 1995, p.253)

At a time when urban and rural spaces have become increasingly functionally integrated, the endogenous values of the countryside, including the important role played by 'nature', are what discriminates between them. In almost all European countries nature conservation considerations have become increasingly prominent in recent policy decisions. This process is referred to by many as the 'greening' of rural policy and society (see e.g. Harper, 1993 and Hoggart, et al., 1995). As will be discussed in this chapter in Section 3.4, evidence for the increasing importance of nature in rural areas will come from the way recent rural policies have been developed in the three case study countries, and from the positive responses to nature as described in Sections 3.2 and 3.5. It is also confirmed by the increase in the total surface area that is protected (see Section 3.3) and the number of members of nature conservation organisations (see Section 3.2).

In this chapter the second sub-research question of this study is answered:

- 1b. How did the post-1945 rural restructuring process in The Netherlands, the UK and Spain affect the nature conservation activities in rural areas?

By answering this question a better understanding is gained of the function of protected nature, its characteristics, and the way it may influence other interests in rural areas; especially the residential activities which are central to this study. In Section 3.2 the concept of nature is clarified by focussing on how it is perceived and experienced in present western society. In Section 3.3 the different approaches towards protection of natural areas is examined. In Section 3.4, conservation policies in the three countries are described. In Section 3.5, focus is on the influence of the presence of protected nature on other rural activities. In the conclusion of this chapter the main differences and similarities in relation to the function and conservation of nature in the three case study countries are discussed (see also Annex 3).

## 3.2 The concept of nature

For the purpose of this study it is important to gain an understanding of how people perceive nature, and the aspects of nature that influence this perception and consequent behaviour. This Section therefore focuses on how and why nature is appreciated.

### *Changing attitudes towards nature*

The relationship between man and nature has always been an important issue in the science of geography. This is not surprising, as people's behaviour in space has always been strongly influenced by the natural environment. To describe the ways that different man-nature relationships have influenced the science of geography, De Pater and Van der Wusten (1991, p. 22) refer to the classification of the American geographer Glacken (1967). He divided the different attitudes from the Greek-Roman period until the Industrial revolution into three groups:

1. Earth is a finished house created by God for man, the most superior being on earth, of which man is the landlord.

2. Earth with its climate, relief and coasts, determines (or strongly influences) the conduct of man.
3. Man changes the appearance of earth: as a consequence of man's labour the natural landscape has been transformed into a cultural landscape.

Glacken's categorisation incorporates, on the one side, the Christian belief that nature was created by God who appointed mankind its guardian. On the other side, it also involves the continuum that is used to represent the man-nature relationship or, in the human geographical perspective, the relationship between the individual, the actor, and the structure. At one extreme 'man is completely dominated by nature' and at the other 'nature is dominated by man and subordinated to man's wishes'. In the first extreme; the deterministic image of man; the emphasis is on the constraining influence of nature on behaviour, i.e., individuals have no influence on nature. In the second extreme, the voluntary image of man, the emphasis is on an individual's freedom of will, choice and action. In this last approach, changes in the natural environment are the product of the behaviour of individuals, whether purposeful or intentional.

Our present western perceptions and understanding have been strongly influenced by the three different attitudes towards nature, which have shifted in different periods of the past. In the Middle Ages, for example, the man-nature relationship dominated, in which man was seen as the landlord of the house of God and nature as subordinate to man's wishes. From the Renaissance onwards the attitude towards nature was increasingly influenced by the belief that man is part of nature and is therefore dominated by nature and/or able to dominate nature (De Pater & Van der Wusten, 1991). This change was related to technological development.

*'As science and technology gradually replaced God and theology in determining humanity's relationship to the natural world, the relationship shifted dramatically. The anthropomorphism introduced by the Renaissance, based more on technological aptitude than on moral imperative, provided the philosophical and scientific justification for ever-greater changes to the natural world.'* (Hoggart et al. 1995, p. 228)

With this growing ability to dominate natural processes, the natural environment was increasingly changed by man, but at the same time respect and interest for nature also started to develop. For example, in painting, and also during the 16th to 19th century, natural features were increasingly introduced in garden design (see Van Der Windt, 1995). The English landscape garden style is an example of this, in which more space was given to non-cultivated, less organised, natural looking patterns, known as wildscapes. Another important reason for interference in landscapes was that woodlands had been disappearing on a great scale in most European countries, and this caused natural disasters. Concern about this and a preoccupation with loss of the habitats in general, made tree planting popular, and this also became apparent in the way landscapes were changed in the 18th century. As a result, in this period, many tree lines and patches of woodland were created in the English countryside. In The Netherlands, the increasing concern for loss of woodland led to the planting of trees on an increasing number of newly created estates in the 18th and 19th century. These were mainly located on the sandy soils on the higher parts of The Netherlands (for example, 't Gooi, Veluwe and Twente).

With the glorification of wild nature by the Romantic movement, and the increasing influence of geographical and biological studies by people such as Alexander Von Humbolt (creation of 'Monuments de la Nature', 1814), Arnold Guyot (*The Earth and Man*, 1849) Eliseo Reclus (*La Terre*, 1868) and Charles Darwin (*The Origin of Species*, 1859), nature conservation measures also became more popular. A growing number of people became involved in the conservation and study of wild nature, and initiatives and organisations aimed at conserving the natural environment became numerous. The earliest and most influential expression of this, was the establishment, in 1864 and 1872 respectively, of the Yosemite and Yellowstone National Parks in North America. This was a reaction to the rapid destruction of natural resources that accompanied growing economic and social changes, and under influence of nationalistic sentiments aiming at the conservation of uncultivated areas (see Bosque Maurel, 1996 and Van Der Windt, 1995). The American example of establishing National Parks was followed soon by other countries like Canada, Australia, Sweden, Germany, Switzerland and Spain. As well as the creation of protected areas, more organisations were created, and political measures were taken, which focussed on the protection of particular species, especially birds.

The American approach to nature conservation differed from what occurred in most European countries during this period. In North American National Parks the emphasis was especially on aesthetic appreciation of wild and untouched nature for mental relaxation and for scientific purposes. National Parks were not and are not

permitted to have any productive function, and interference in natural processes is prevented as much as possible. In many European countries, there was less interest in the concept of wilderness than in the conservation of natural resources, and in preventing the disappearance of particular plant and animal species (see Van der Windt, 1995). This was not surprising since, by the end of the 19th century, there was much less wilderness left in most European countries than in many overseas areas. Furthermore, private initiatives aimed at conserving nature were numerous in all countries and were important for the setting-up of specific conservation measures. However, government support for these initiatives came much later in most European countries than in North America.

In The Netherlands nature conservation measures started relatively late, because the industrialisation process also occurred later, and political and social movements, like Romanticism; which played an important role in exalting nature; were less influential (see Van Der Windt, 1995). In the 19th century the Dutch conservation initiatives were influenced less by American ideology than by what was occurring in Germany, with the creation, by the end of the century, of *Naturdenkmäler* (Natural Monuments) and *Staatsparke* (State Parks); which were especially inspired by Wetekamp and Conwentz. They based their ideas on the scientific ecological approach to nature, in which natural communities were perceived as part of a related network that should be in balance with each other. These ideas also influenced the private nature conservation initiatives in The Netherlands, especially among Van Eeden, Thijsse and Heimans, a group that has played an important role in the foundation of *Natuurmonumenten* (1905) (Natural Monuments) the main private Dutch organisation responsible for the conservation of protected natural areas. An important feature of their approach was that they did not aim at protecting the whole rural territory or the whole natural resource, but only specific parts that were needed for the conservation of particular species, which were considered important by nature conservationists and/or artists. Nature conservation was therefore focussed on exceptional elements, and was more related to rarity than to wilderness. What was deemed worthy of protection was determined by the leading conservationists of that time; usually belonging to groups of nobility, businessmen or biologists. According to Van Der Windt (1995) the Dutch conservation approach was unique, in that aesthetic considerations, the protection of wilderness and wildlife, and national significance were less important than in other countries.

Since industrialisation and related urbanisation started early in the UK, one would also expect an early conservation movement in this country. Nostalgic feelings for disappearing pre-industrial features, and an ecological consciousness, did indeed develop at an early stage, but while a drive to preserve rurality emerged as a significant force in politics in the 19th century, conservation of the natural environment did not become translated into policy until the middle of the 20th century. In spite of the late political response to the conservation of nature, ecological consciousness took root in English society at a relatively early stage, and stimulated the establishment of many voluntary and/or pressure groups, which formed the basis of the present day conservation movement; especially in the field of animal welfare protection. The environmental consciousness of the groups, which was mainly concerned with human destruction of nature and species, was inspired by Darwin's theories. The groups were rather extreme in their views, and encouraged the powerful conservative forces in the countryside to assert their property rights; making the acquisition of land for conservation purposes impossible in the 19th century. Only the *National Trust*, which was founded in 1865, managed a greater degree of success. Because this organisation placed firm emphasis on conserving places of beauty and of historical interest, as well as nature and species, it was therefore regarded as less threatening. Political support for the aims of the *National Trust* increased and, because there was already a strong link with landowners, the acquisition of land became very successful from the beginning of the 20th century. The Trust obtained its first property in 1896 and at this moment it is the largest private landowner in England and Wales (Lowe, 1989), with considerable power in the fields of nature conservation and historic preservation. The main feature that differentiated the UK approach was the emphasis on beauty of landscape, rather than wilderness; as in North America; or rare species or elements; as in The Netherlands. Another specific characteristic of the UK conservation approach was the strong focus on the protection of animals. Already in 1824, the *Society for the Prevention of Cruelty to Animals* was established by aristocratic groups.

In Spain, from the 17th century onwards, there were several scientists and conservationists who produced works expressing their concern over the ecological deterioration of Spain (see Mulero Mendigorri, 1995). These

expressions reached their climax at the end of the 19th century, when there was great anxiety about excessive deforestation, the destructive influence of agriculture, and the regular occurrence of natural disasters. A very illustrative quotation from this period says 'as one glorious day the Reconquest against the Arabs commenced in Covadonga, it is also from there that the Reconquest against desertification will commence'<sup>1</sup> (Solé I Masip & Solo de Zaldivar, 1986, p.24). According to Mulero Mendigorri (1995) one should realise that Spain has always had a strong tradition in conserving its natural resources. The main reason for this was that the nobility and the royal family were, and still are, important land owners and were therefore able to keep huge areas of wild lands exclusively to themselves for hunting and fishing purposes. One of the most important European National Parks, Doñana, owes its existence to the fact that it had always served as a hunting ground for the nobles and royalty, until it came under national and international protection.

In 1918 Covadonga, in the Picos de Europa, and Ordesa, in the Pyrenees, became the first National Parks in Spain. Their creation was partly driven by concern about the deterioration of the natural environment, and ecological disasters that could result, but there were also groups that concentrated on the scientific and recreational aspects of the environment; especially the mountainous areas of the country. First of all the Spanish Geographical Association<sup>2</sup> had already produced many publications on the natural and historical resources of Spain. Then there were others who focussed on the recreational and scientific value of the Spanish mountains; like several exploration and scientific study groups<sup>3</sup>. All these internal developments were much influenced by external developments in the rest of Europe and especially North America. First of all, the Spanish scientists and conservationists picked up the ideas from, for example, Von Humbolt and Darwin. The North American model had a greater influence on the measures adopted in Spain than it did in the UK and The Netherlands. The political willingness to implement conservation into policy was already clear as early as 1857, when a directory of mountain areas that were of public interest was created (*Catálogo de Montes de Utilidad Pública*). Because of this, Spain was also relatively quick in incorporating the international movement for the protection of natural areas into its national policy. By 1916 the Law for National Parks came into use, and in 1918 the first National Parks of Spain were declared. In the UK this only started in the 1950s, and in The Netherlands not before the 1960s. Several features set the Spanish conservation model apart from others in Europe. Firstly, through the declaration of National Parks, early nature conservation in Spain shows its similarities with the American system. It differs from the Dutch and British approaches in its greater emphasis on wilderness. Because there is more untouched natural land left in Spain than in many other European countries, including The Netherlands and the UK, Spanish National Parks are not in productive use. Secondly, in Spain, ecological concerns emerged earlier as a strong influence on both politicians and conservationist groups. In particular, the fast disappearance of woodland played a key role. Thirdly, even more than in the UK and The Netherlands, the conservation pressure was widely spread among the intellectuals and the nobles, while the big majority of the Spanish population was not involved in conservation issues at all. The long-lasting power of the aristocracy, which owned and still owns extensive tracts of land, has for a very long time ensured the complete segregation of protected and agricultural land. Fourthly, the sparse population in parts of Spain also made it easier to establish National Parks at an earlier stage. This is also confirmed by Hoggart et al. (1995, p. 245) who explains the early and late establishment of National Parks in European countries as follows: "Where land occupation was denser, economic problems (as in the 1930s) tended to favour policy emphases on rural economic expansion rather than landscape protection....".

### ***Appreciation of nature***

Many environmental psychologists and other social scientists have done research on the man-nature relationships and several common findings have been produced in the way people value nature. The most important and generally accepted outcome of research is that a higher degree of naturalness is preferred as opposed to more human interference (see for example Ulrich, 1986; Maciá & Huici, 1986; Herzog, 1989; Kaplan & Kaplan, 1989; De Castro, 1990; Hartig, 1993). This was most directly shown in studies on the aesthetic appreciation of nature (see e.g. Hendrix and Fabos, 1975; Ulrich, 1983 and Kaplan & Kaplan, 1989). Other studies indicated that the preference for the natural even goes beyond the aesthetic appreciation. For example Ulrich (1979, 1981) showed proof of the restorative power of nature for people that were coping with psycho-physiological stress or that were recovering from an operation. Research done by Kaplan et al. (1988) showed a

positive relationship between access to nature at the workplace and lower levels of perceived job stress and higher levels of job satisfaction.

Besides the benefits of being able to see nature, being surrounded by nature can also be very stimulating; as Levitt (1988) and Driver et al. (1987) showed in studies evaluating outdoor activities in natural areas. Both studies indicated that the range of benefits was considerable and related to improved physical wellbeing, fitness, and self-esteem. Hartig (1993) compared the learning and concentration abilities of students after walking in urban and natural settings, and concluded that the latter performed significantly better.

Beside the positive relationship between nature and wellbeing, individual differences and cultural differences in the appreciation of nature have also been found. A recent study from Van Den Berg (1999) indicated that there is a clear link between perceived degree of human influence and individual differences in landscape preference. Van den Berg's research results showed that farmers, older people, and people with low levels of education and income had a relatively stronger preference for natural landscapes that had a high degree of human influence; whereas experts, people who were highly concerned with the environment, younger adults and people with high levels of income and education had a relatively stronger preference for natural landscapes with a low level of human influence. Van Den Berg (1999) explains this difference by suggesting that groups who are dependent on the countryside, or are vulnerable to the risks and dangers inherent in natural landscapes, like farmers, or older people who are less robust, display a relatively strong preference for well-kept landscapes. Comparable research outcomes were also found in studies done by González Bernáldez (1985) and Macía y Huici (1986) who found that students preferred wild landscapes while farmers and people that worked as servants preferred more uniform, cultivated landscapes that lacked relief.

Another important finding has been that outdoor recreation is often motivated by the desire to be in a natural environment. The motivations to visit natural areas have been reviewed by Hartig (1993) and split-up into five different groups: (1) the wish to get away from the everyday, build-up environment, the so-called 'escape character' visits, (2) the search for a religious/aesthetic experience, (3) the wish for tranquillity, (4) the solitude experience and (5) the enjoyment of nature. The last three aspects especially are strongly associated with landscapes that show little human influence.

Finally, evidence has also been produced in psychological studies of the positive influence of proximity to nature, especially in the residential environment. The presence of nature or natural elements such as trees were reported to be responsible for higher residential satisfaction (Kaplan, 1983). This is very relevant in the context of this study and will be discussed more extensively in Section 3.5, where attention is paid to the influence of the presence of protected nature on other activities in rural areas.

#### *Public interest in nature conservation*

Evidence for the increased public awareness of environmental issues also comes from the magnitude of voluntary contributions to private conservation agencies like the WWF (World Wildlife Fund), which receives nearly \$100 million dollars per year of voluntary donations (McNeely, 1988). But also the growing number of people who have become a member of an environmental or nature conservation organisation confirm this. In The Netherlands for example the number of members of the main private nature conservation organisation, *Natuurmonumenten*, increased nine-fold between 1970 and 2000; from 100,000 members to 900,000 (*Natuurmonumenten*, 2000). An even bigger growth rate was experienced in the UK by the *National Trust*, which increased its membership from 0.2 million members in 1970 to 2.4 million members in 1997 (*National Trust*, 1998).

In Spain the public involvement in environmental issues has also grown considerably, but the proportion of people actively involved in environmental issues is still much lower than in the two Northern European countries studied (see Table 3.1). If the membership situation in the different countries is compared, The Netherlands is remarkable. Only in Scandinavian countries is the number of donors/members as high as in The Netherlands, where, out of the total population (>=18 years), 22% are members and 26% are donors of an environmental organisation (Nas et al., 1997). In the UK and Spain this proportion is much lower; however, the Dutch dominance only applies to the number of members and donors, not to the relative number of people participating in environmental demonstrations (see Table 3.1). According to Nas et al. (1997) this is probably

TABLE 3.1 Public interest and participation in environmental organisations in Western-Europe in 1995 and Gross Domestic Product (GDP) and urbanisation level

	Demonstrator (1)*	Member and/or donor (1)*	Either member, donor or demonstrator (1)*	GDP per inhabitant EU-15=100, 1994 (2)	Urban population as % tot. population, 1993 (3)
<b>Netherlands</b>	<b>5</b>	<b>33</b>	<b>35</b>	<b>111</b>	<b>89</b>
Finland	6	31	33	97	62
Sweden	7	30	33	114	83
Denmark	5	30	32	142	85
Austria	11	23	29	122	55
Western-Germany	13	17	23	n.a.	86
<b>UK</b>	<b>6</b>	<b>18</b>	<b>21</b>	<b>88</b>	<b>89</b>
Ireland	7	18	21	76	57
Belgium	6	15	18	115	97
Italy	9	8	15	88	67
France	11	7	14	116	73
Greece	9	3	11	48	64
<b>Spain</b>	<b>7</b>	<b>6</b>	<b>11</b>	<b>62</b>	<b>76</b>
Eastern Germany	6	5	10	n.a.	n.a.
Portugal	6	6	10	43	35

Regression analysis to determine relationship between:  
GDP per inhabitant and % member, donor or demonstrator: Adj. R<sup>2</sup>=45% (=0.01)  
Urbanisation level and % member, donator or demonstrator: Adj. R<sup>2</sup>=3% (=0.27)  
(Eastern and Western Germany have been excluded in the analysis)  
\* Persons of >= 18 years as proportion of total population  
n.a.: not available  
Source: (1)Nas, et al. (1997); (2) Eurostat, 1998; and (3) Worldbank, 1996

related to the fact that the Dutch environmental organisations are more institutionalised than in most other countries, and therefore less dependent on protest actions to forward their interests. In Spain environmental organisations are much younger and still have a longer way to go to build up their position as institutionalised pressure groups.

The variations between the three countries in public involvement in environmental issues and organisations can be related to the specific socio-economic, historical, cultural, political, and environmental characteristics of the countries. Explaining such differences in the levels of public awareness will be complicated and speculative, but there are some plausible factors that may explain part of the differences. Three of these factors will be investigated as follows:

Firstly, differences in environmental concern between the three countries may be related to income levels A regression analysis was carried out to investigate the relationship between Gross Domestic Product (GDP) per inhabitant and the proportion of the population that was a member, donor or demonstrator. The results, in Table 3.1, show a weak but significant relationship between the two variables. This means that the differences in public involvement in nature and environmental conservation between the three countries can be at least partly explained by differences in average income. To determine whether an increase in income has also been a reason for the growth in public involvement in conservation, van Zanden (1996) compared the development of the

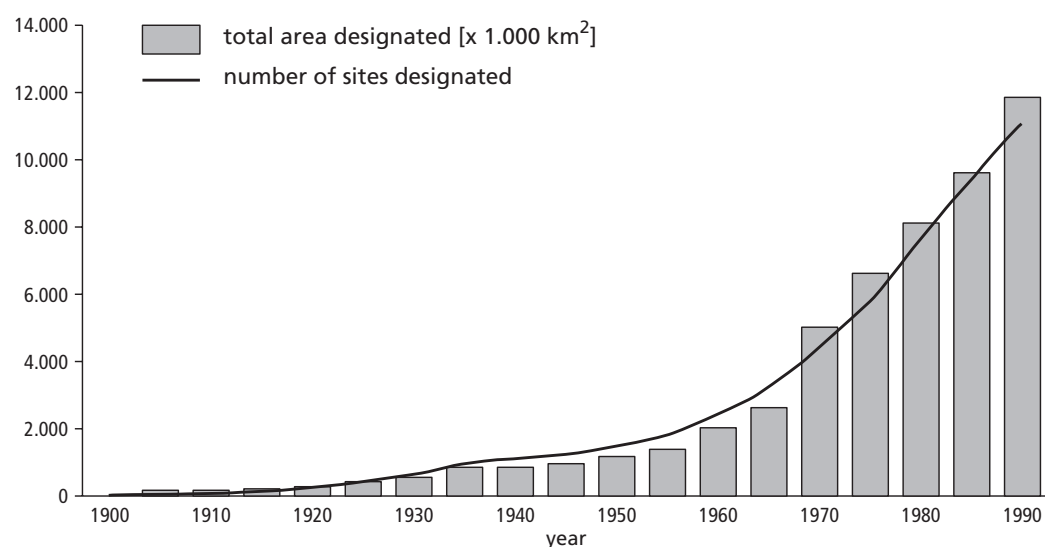
National Gross Domestic Product with membership numbers of *Natuurmonumenten* for a period between 1910 and 1996 in The Netherlands. He discovered a parallel development: in years of strong economic growth the number of members increased considerably, while in depression years the numbers decreased. This implies that in The Netherlands at least, one can assume that one of the reasons for the increased public interest in nature conservation issues in the last decades is related with growing income.

Secondly, it was expected that differences in the degree of urbanisation in the three research countries could also be a reason for the lower environmental involvement of the Spanish, compared to the Dutch and UK populations. However, a regression analysis, shown in Table 3.1, between urbanisation and the proportion of the population that was a member, donor or demonstrator, does however not confirm this assumption. No relationship was detected between the two variables. It is, however, possible that such a relationship may exist within a country. Arisó (1982) found that, in Spain, concern within the urban population about the ecological deterioration of the countryside had been growing markedly, while no increase was detected among the rural population groups.

Thirdly, the lower inclination of the Spanish population to be involved in environmental organisations may also be related to the higher proportion of wild lands that is still present in the Spanish territory. Although the transformation of the Spanish rural spaces has also been drastic, there is still relatively more land left where human involvement is small or absent than in The Netherlands and the UK. Reasons for this can be searched in the overall lower population density, specific historical and social factors and physical conditions, which prevented human occupation in large parts of the territory (see also chapter 2). In Spain there might therefore be a difference of perception, related to the relative lower scarcity of natural lands. Hartig (1993) indicates that relative scarcity might be a determining factor in the value that people place on something: 'if people are concerned about scarcity, their preference judgement will involve placing additional weight on that which is relatively scarce in less preferred alternatives'. In The Netherlands and the UK undisturbed land is virtually absent, which makes nature a scarce resource for which there is more public concern than in Spain.

### 3.3 Protected nature

FIGURE 3.1 Cumulative growth of the world's protected areas 1900-1990



Source: World Conservation Monitoring Centre (WCMC), 1997 UN list of protected areas.

Since the establishment of the Yosemite and Yellowstone National Parks in 1864 and 1872, almost every country has set up some type of protection within its boundaries, using its own criteria. There has been a great expansion not only of the total area (see Figure 3.2) but also of the diversity of territory now protected.

### 3.3.1 Types of protected territories

In 1962, at the request of the UN, a list of National Parks and Equivalent Reserves was produced. The IUCN together with the WCMC are responsible for the compilation and maintenance of this list. Sites that are included in the IUCN list must have a size of over 1000 hectares and must meet the IUCN definition of a protected area:

*An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and management through legal or other effective means. (IUCN, 1994).*

The IUCN organises the different types of national designations by defining six types of protected area categories, according to the type of management in place (see Box 3.1), and the degree of human intervention in the natural processes. This ranges from practically zero human interference in categories Ia/Ib to relatively high levels of human intervention in categories IV and V. Category VI was only added to the classification in 1994, but its interference level places it between category III and IV (Green & Paine, 1997). A distinction can be made between mono-functional and multi-functional land use where, respectively, management is for conservation only, or in combination with sustainable utilisation. In categories Ia, Ib, II and III management is aimed only at protection of either wilderness and/or species; usually combined with scientific, recreational and educational objectives. On the contrary, in areas that fall into categories IV, V and VI, human habitation and exploitation of natural resources, on a sustainable basis, are primary or secondary management objectives, because this

TABLE 3.2 Protected areas in the world and in the three case study countries according to the IUCN management type classification in 1997

IUCN-type*	World		Netherlands		UK (England, Wales, Scotland & N-Ireland)		Spain	
	Number of sites	Area ha. (*1000)	Number of sites	Area ha. (*1000)	Number of sites	Area ha. (*1000)	Number of sites	Area ha. (*1000)
Ia: Strict Nature Reserve	1423	978	6	24	0	0	2	4
Ib: Wilderness Area	654	939	0	0	0	0	0	0
II: National Park	2233	3994	9	27	0	0	13	223
III: Natural Monument	409	191	7	24	0	0	0	0
IV: Habitat/Species Management area	3622	451	45	210	52	235	81	1717
V: Protected Landscape/Seascape	2418	1051	11	22	105	4690	125	2275
VI: Management Resource Protected area	1995	3599	2	247	0	0	0	0
Total	12754	13204	82	561	157	4925	221	4220
% of total land area	-	9	-	14	-	20	-	8

Source: World Conservation Monitoring Centre, 1998



### **Box 3.1 Definitions of the IUCN Protected Area Management Categories**

#### **CATEGORY Ia: Strict Nature Reserve:**

##### **Protected area managed mainly for science**

Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

#### **CATEGORY Ib: Wilderness Area:**

##### **Protected area managed mainly for wilderness protection**

Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

#### **CATEGORY II: National Park:**

##### **Protected area managed mainly for ecosystem protection and recreation**

Natural area of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

#### **CATEGORY III: Natural Monument:**

##### **Protected area managed mainly for conservation of specific natural features**

Area containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

#### **CATEGORY IV: Habitat/Species Management Area:**

##### **Protected area managed mainly for conservation through management intervention**

Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

#### **CATEGORY V: Protected Landscape/Seascape:**

##### **Protected area managed mainly for landscape/seascape conservation and recreation**

Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

#### **CATEGORY VI: Managed Resource Protected Area:**

##### **Protected area managed mainly for the sustainable use of natural ecosystems**

Area containing predominantly unmodified natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

Source: World Conservation Monitoring Centre, 1998

extensive exploitation of natural resources is crucial for the maintenance of the natural and cultural features that characterise them.

Dutch, UK and Spanish protected areas have also been included in the IUCN list and categorised in the IUCN

types of protected area (see Table 3.2). The Netherlands have the biggest variety of protected area categories, including are two aquatic reserves, the Waddenzee and the Oosterschelde, which are in category VI. They contain predominantly natural ecosystems but fishing, and gas and oil exploitation are allowed, under strict regulations. Aquatic natural ecosystems have not been put under protection in the other two countries. In the UK there are only designated areas in category IV and especially V, which implies that in these areas habitation and exploitation is allowed. These areas consist of cultural landscapes, which are the result of long time interaction of people and nature. For maintenance of the ecological and cultural qualities of such areas, a continued intervention by man is needed. In Spain the variety of protected area categories is smaller than in The Netherlands but bigger than in the UK. The cultural landscape categories IV and V are also the main categories, but category II is also very important, both in the number of sites and in the amount of terrain covered. These category II areas are under strict regulation, as neither exploitation nor occupation is allowed, and the natural character is very high, because intervention is limited, even for conservation purposes.

The UK has the highest proportion of land under designation. More than 20% of the total (land) area is under protection in the UK, in Spain this is only 8% and in The Netherlands this is 14% of the land area, excluding the aquatic reserves (category VI in Table 3.2). The relatively large surface of protected territory in the UK, is probably related with the fact that areas under designation are not subject to a very strict protection regime, in the sense that there is a multi-functional land use in these areas. Exploitation of natural resources, which is extensive farming, and habitation is allowed and human interaction with nature is intensive. The reason for this is related with the historical changes in the UK landscape and approaches in conservation policy as will become clear in the following. In Spain the proportion of land under designation is relatively small, but in absolute terms Spain still contains the biggest surface of relatively undisturbed land of high ecological quality where no human occupation or intervention is allowed. The picture for The Netherlands is deviant, because of the inclusion of the protected territory of the huge Waddenzee, but overall the average size of designated areas is very small in comparison to the UK and Spain. The protected areas are also very fragmented which explains why The Netherlands was one of the first countries to incorporate the ecological network approach in its conservation policy (see next Section). In comparison to the UK, The Netherlands has relatively less land under designation but the sparse patches of natural land that are still left, are usually very strictly protected. The differences in protection regimes between the three countries will be discussed more extensively in the next Section.

### **3.3.2 Establishment and management of protected natural areas**

Although the overall objective for establishing a protected territory has been the same; i.e., setting a territory aside to protect it against further human exploitation, in order to conserve the biological diversity, and sometimes also the cultural resources; the criteria chosen have been very diverse. According to Spellerberg (1992, p. 185) 'the most common criteria used for the selection and designation of protected areas are related to the wish to protect habitats of species or groups of species that are under threat, the level of naturalness or rarity, the historical, cultural, educational, scientific value or the typicalness or representativeness'.

Over the years several people have sought to rationalise the necessity for conservation of the natural environment. Many economists, for example, assume that if it can be proved that nature areas have a certain economic value it will encourage people to take measures to conserve the biological resources of the earth. Other groups are more inclined to connect the arguments for nature conservation to indirect values that do not normally appear in the national accounting systems, and which are related to the functioning of ecosystems, e.g. maintenance of water cycles; erosion-protection of soils and the maintenance of the oxygen-carbon dioxide balance, but also the provision of recreational, aesthetic, scientific, educational, spiritual and historical values (see e.g. McNeely, 1988).

Overall, it is clear that there are several scientific, economic, emotional and political arguments supporting the conservation of the natural environment, and the importance of setting aside land for protection. World-wide this has also resulted in a great variety of ways in which protected areas are designated and managed. However, these efforts have not always been successful. Several examples can be given of where things have gone wrong, in area designation and management and have led to adverse effects on the quality of the natural and cultural resources that were meant to be conserved (see e.g. Sadler, 1989; Rao & Geisler, 1990; Wells et al., 1992).

Another problem frequently encountered, is where designated areas were established in such a way that no attention was paid to the needs and wishes of local population groups (see Olwig & Olwig, 1979; Stankey, 1989; Rao & Geisler, 1990; Zube & Busch, 1990; Fletcher, 1990 and Wells et al., 1992). This has had many negative effects on both the natural resources and the development opportunities of local communities. In the last two decades in most western countries a trend can be detected of nature conservation being combined with rural development measures. These approaches, in which the management of a protected area is combined with measures to improve the cultural, economic and social interests of local communities, are often referred to as sustained or sustainable development. In addition, natural amenities are also increasingly seen as a resource for endogenous development of rural areas (Harper, 1993 and Hoggart et al., 1995). Searching for mutually supportive interactions between natural areas and local population groups is therefore important for stimulating the development of rural areas and very relevant in the context of new rural policy strategies. Zube and Bush (1990) investigated situations in which local populations were involved in natural area management, or related development, in order to find strategies and techniques to improve park/people relationships. Although, in practice, more models usually apply to the situation in any one locality, as has been found in this study, the four examples that they identified provide a comprehensive overview of the most common relationships (see Table 3.3).

TABLE 3.3 Four models of the relationships between protected natural areas and local population groups according to Zube and Bush (1990) applied to the situation in the five case study areas of this study

	Model 1	Model 2	Model 3	Model 4
Dwingelderveld			X	X
Weerribben			X	X
Lauwersmeer				X
Northumberland	X		X	X
Doñana National Park		X	X	X
Doñana Entorno Park	X		X	X

Model 1: local participation in park management and operations and/or residence within the park.  
 Model 2: services delivered by park personnel to local populations living outside the park.  
 Model 3: maintenance of traditional land uses inside the park for the local population.  
 Model 4: local population involvement in park related tourism.

The first model is often found in British National Parks where a very small percentage of the total park land area is in public ownership and it is quite common for people to live within the boundaries of the Park. This applies most clearly to the UK example in the current study: Northumberland National Park. Here the local population and the local authorities are directly represented on the National Park body, which is responsible for the management of the park. In this way, local people can collaborate on the issues of conservation, the application of specific farming techniques, land management, and the restoration of farms and other historical features. In the Doñana Entorno Park the different landowners live on their farms that are situated within the boundaries of this protected territory.

In the second model, local people have no access to the park anymore, but they are compensated for this by the provision of several kinds of social services by park staff; such as education programmes, assistance with the improvement of existing agriculture, and by the introduction of alternative economic activities. The Spanish case study, Doñana, best fits this model. Locals only have very limited access to the protected area, but the number of education programmes, compensatory measures for creating alternative economic activities, and the provision of services have increased considerably in the last decade.

In the third model, traditional land uses are still allowed within the boundaries of the protected area. This model

applies to almost all designated areas that have category IV, V and VI status in the IUCN protected area categories (see Box 3.1). Also, in four of the current study areas some form of traditional land use activity takes place. In Doñana, for example, gathering, hunting and extensive agriculture and forestry takes place. However, these activities are limited to certain areas. Reed harvesting is carried out in the Weerribben area, and extensive agriculture and forestry are found in the Northumberland National Park and also in part of the Dwingelderveld. In the fourth model, local populations gain economic benefits through tourism. They are involved in activities such as selling handcrafts, serving as tourist guides, and providing tourist services outside the parks. Natural areas play an important role in attracting tourists to a region. In almost any protected territory local population groups will gain some advantage from eco-tourism, but benefits are often accompanied by negative side-effects such as over-crowding. This model applies to all five case studies.

### 3.4 The conservation of nature and rural policy

Government involvement in nature conservation started at different times in The Netherlands, the UK and Spain, and there are many differences, though also similarities, in approaches to designation. An important common feature has been the increased integration into rural policy of conservation of the natural environment. Signs of this process are seen in the introduction of the concept of sustainable development in all three countries, and the gradual shift towards landscape conservation. Because these changes in approaches to designation started earlier than in Spain, Dutch and British developments have been more pronounced.

The IUCN categorisation, as previously discussed, is a helpful tool for comparing the types of protected areas that have been established. However, this categorisation is only based on general management objectives, and it excludes areas below 1000 hectares. When looking from a national perspective at the type of designated areas in the three countries, there is a huge variety in type of designations and the incorporation of nature conservation into rural policy. In the UK for example there are already 29 different types of protected areas, which have been established under a local, national or international authority (Bishop et al., 1997). The number of designations is also still increasing. Only in recent years on a European authority level, new area designations have been developed of which the most important is the result of the EU Habitats Directive, which aims at establishing a comprehensive network of protected areas; the NATURA 2000 network. At this moment all EU countries are in the process of putting their already designated or newly designated sites on the NATURA 2000 list to be approved by the EC.

#### 3.4.1 Nature conservation in The Netherlands

In The Netherlands the government first became involved in nature conservation through *Staatsbosbeheer* (National Forest Service). This organisation was founded in 1899 and charged mainly with maintaining forests and reforesting state-owned wasteland. In 1929, nature conservation was officially added to its mandate. Although there were several private initiatives (e.g., *Natuurmonumenten* since 1905) that took care of the conservation of nature on private lands, government involvement in nature conservation was only constrained to state lands until the 1940s when involvement was broadened. Firstly, directly after the Second World War the Ministry of Education, Arts and Science was officially entrusted with the governmental nature conservation task. Secondly, a land use planning instrument was introduced, a regional plan, in which in consultation with private nature conservation organisations a list of areas with high nature value could be incorporated. For these areas ('*Meldingsgebieden*', 1942) the obligation was created that the government had to be officially informed about any planned changes in use or ownership of these lands. The government could then object against these intentions if needed. This instrument stayed effective until 1970, when it was replaced by other legislation and planning instruments. Thirdly, the government started to acquire land for nature conservation purposes in a more active way and also through subsidising land acquisition by private nature conservation organisations.

By the beginning of the twentieth century the first legislation for conservation purposes had been created. As in many countries, one of the first enactments was the law for the protection of birds (*Vogelwet*, 1912). This was replaced by the present '*Vogelwet*' in 1936, which covers the protection of all European bird species; except for a

few mentioned in the hunting act (*Jachtwet*). Several species of native plants and animals were brought under the protection of the nature conservation act (*Natuurbeschermingswet*), which only came into force in 1968; although it had first been announced in the Queen's speech in 1928. This act is still in force and controls the protection of natural areas as well as species. It provides the government with an instrument to safeguard areas of high ecological value; whether state owned or private. Another important law was the estate act (*Natuurschoonwet*), which was approved in 1928 and still is effective. It qualifies estate owners for favourable tax arrangements if they preserve their estate, manage it in a satisfactory way and keep it open to the public.

In the 1950s the fast reorganisation of the agricultural sector, especially through the extensive execution of land consolidation schemes, was very threatening for the natural attributes of the countryside. Because of the strong power of the farming sector (see Section 2.5.1), the absence of legislation for the protection of natural areas (the Nature Conservation Act was not approved until 1968), and the lack of planning policy in rural areas, nature conservation organisations did not have the power to act effectively against the environmental losses (Gorter, 1986). These organisations were therefore very happy with the publication of the *Nota inzake de Ruimtelijke Ordening* (national spatial planning memorandum) in 1960 (see Section 2.5.1); through which they obtained more power to object against planned changes in the countryside. It also gave the national government a new instrument to guide land use changes and to coordinate better the fragmented conservation measures at a national level; especially important with the increasing pressure on nature and landscape from urban, agricultural and recreational development. Even more crucial was the creation of a legal base for Dutch area planning with the passing of the spatial planning act (*Wet op de Ruimtelijke Ordening*, 1965) (see Annex 1 and Section 2.5.1). With this act the government authorities were not only able to direct or stimulate certain spatial developments, but they could also make land use changes conditional on municipal authorities incorporating the higher order schemes into local planning. These decisions were legally binding for both the individual and the municipality (see Annex 1).

Unlike the optimistic expectations of the 1950s and 1960s, by the 1970s concerns about the negative impacts of continued economic and population growth started to affect policy formulation, and emphasis shifted from welfare to wellbeing (see also Section 2.5.1). In this period it also became increasingly clear that the designation of areas under the nature conservation act (1968), and the acquisition of land for conservation purposes; effectively segregation of nature; had not achieved the desired improvement in ecological quality that had been expected. These developments stimulated new policy formulation in favour of broader scale environmental conservation. Two important policy shifts in this context were detected (see De Lange, 1995): Firstly, the principles of integration and broadening, by the inclusion of landscape, were introduced into conservation policy; resulting in the combined consideration of nature and landscape. Secondly, new designations, such as National Parks and National Landscape Parks, were introduced, in which nature conservation was arranged through spatial planning. All these new policy initiatives were announced in the *Nota Landelijke Gebieden* (1977), together with other structural plans and structural vision plans (see also Section 2.5.1 and Figure 2.2). A central element was the introduction of the principles of separation and integration of the different functions of rural areas through division into four types of landscape zones<sup>4</sup>. The idea behind this zoning policy was that the protection of nature and landscape should be achieved as much as possible through integration. The rationale is based on three main objectives:

1. to guarantee the protection of areas with high ecological, cultural and amenity value
  2. to maintain and improve the quality and diversity of the natural environment
  3. to maintain and develop the quality and diversity of the landscape
- (De Lange, 1995, p. 72).

The most important instrument regulating the integration of functions in rural areas was introduced through the report concerning the relationship between agriculture, nature conservation and landscape conservation (*Relatienota*, 1975) (see also Section 2.5.1). The main aim in this report was the conservation of the most valuable and vulnerable parts of the cultural landscape. In order to achieve this, it was recommended that parts of agricultural land should be designated as nature development areas or as reserve areas, in order to acquire these lands as nature reserves in the long term.

As already mentioned in Section 2.5.1, government policy for rural areas clearly changed course again in the

1980s. This became manifest through the introduction of the sustainability concept, adapted legislation, new measures, and more financial resources to improve the quality of life and the environmental and natural qualities in rural areas. New policy in relation to nature and landscape is prepared in two sectoral plans; the nature policy plan (*Natuurbeleidsplan*, 1989), and the landscape plan (*Nota Landschap*, 1991). In these plans it was announced that policy should be aimed at the sustainable conservation, restoration and development of natural and landscape qualities. The innovation was that restoration and development of characteristics of nature and landscape were added to the already existing conservation objectives. In the *Nota Landschap* it was announced that policy should concentrate on the sustainability and identity of the landscape. To realise this the landscape should not only be aesthetically attractive and form a good structure for healthy ecological development, but it should also provide a good economic and functional basis for different land use activities<sup>5</sup>.

In 1993 a new green structure plan (*Structuurschema Groene Ruimte*) was published which integrated the different policy objectives of the sectoral plans (*Natuurbeleidsplan*, *Nota Landschap* and *Landbouwstructuur Plan*) with other policy objectives in other structural plans and memorandums (see Section 2.5.1) and translated these into land use planning. The most important spatial planning objective in relation to nature conservation was that an ecological network on a national scale was to be created. This network approach is determinant in current government intervention in nature protection. The network (*Ecologische Hoofdstructuur*) consists of core areas (*Kerngebieden*), nature development areas (*Natuurontwikkelingsgebieden*) and corridors. Core areas have nature values of national/international importance and should have a minimum size of 500 hectares. Within the second area, the development of a high quality natural environment of national/international importance should be realised. The corridor areas should enable the exchange of species between core and nature development areas. The *Ecologische Hoofdstructuur* will be realised by 2018 and should cover a total of 700,000 hectares. An important part of this network will consist of already existing conservation areas, but a considerable part of it still needs to be acquired under the nature conservation act and the implementation of the *Relatienota* policy. At this moment it is aimed at acquiring 150,000 ha of land for nature conservation purposes before 2018 (RIVM et al., 1999a). Of the 100,000 hectares of agricultural land planned as nature reserves through the application of the *Relatienota* instrument, 35% was acquired by 2000, as was 21% of land earmarked for nature development purposes. The execution of the *Natuurbeleidsplan* depends mainly on the lower-tier governments, who have to incorporate the exact location of the potential reserve areas in their regional and land use plans (see Annex 1). Considerable resources are also required to pay for the purchase of land from farmers by the government, or subsidising acquisition by private nature conservation organisations, and to fund management agreements with farmers. There are doubts as to whether enough money will be available to realise the total 700,000 ha. *Ecologische Hoofdstructuur* by 2018, especially because prices for agricultural land are expected to further increase. The policy developments described above have had an important result for nature conservation in The Netherlands, in the variety of different categories of protected areas that have been designated since the beginning of the twentieth century. In 1996 the total area protected was 450,000 hectares, divided into 300,000 ha of multi-functional forest and 150,000 natural land. This was equivalent to 13% of the total land surface (RIVM, 1999b and Ministry of Agriculture, Nature Conservation and Fisheries, 2000). Many different protection statuses are available; either as a planning label and/or falling under various legislation. In addition, there are also many areas that have obtained international protection status; i.e., EU Birds and Habitat Directive and Ramsar sites (see Table 3.4). Often one natural area has more than one planning and/or legislative label. It should therefore be realised that there is a considerable degree of overlap between the different categories in Table 3.4; e.g., many National Parks consist of private and state-owned nature reserves and all National Parks are part of the *Ecologische Hoofdstructuur*. This *Ecologische Hoofdstructuur* should also be the Dutch contribution to the European Ecological network, Natura 2000, which automatically implies that these areas overlap with the EU Habitat Directive sites. In the following, the main categories of designated areas in The Netherlands, as summarised in Table 3.4, are discussed.

Firstly, attention is paid to the national designations and then the international designations are discussed. The first protected territories in The Netherlands were in the hands of private bodies that managed these areas with conservation as the main objective. From the 1920s onward, these bodies were given government support, through the passing of legislation, and later through subsidies for the acquisition of land. Private nature reserves

TABLE 3.4 Main protected area designations in The Netherlands (situation 1997)

(Protection) status	Date of origin (plan, legislation or establishment)	Estimated surface (ha) (1997)
Land of private conservation organisations (e.g. <i>Natuurmonumenten</i> )	1906	131,000
Land under the Estate Act	1928	72,000
State-owned nature reserves ( <i>Staatsbosbeheer</i> , municipalities and others)	1929	277,407
National Parks	1930	45,670
Nature Reserve (=Land under the Nature Conservation Act)	1971	313,885
Ramsar Sites	1971	326,763
Protection areas under the EU Birds Directive	1979	341,148
National Landscapes ( <i>Nationale Landschappen</i> )**	1988	n.a.
Protected Nature Unit ( <i>Grote Eenheid Natuur=GEN</i> )*	1988	n.a.
Large Landscape Unit ( <i>Grote Landschapseenheid=GLE</i> )**	1988	n.a.
Sites designated under EU Habitat Directive (NATURA 2000-sites)	1992	281,946
Valuable Cultural Landscapes ( <i>Waardevol Cultuurlandschap=WCL</i> )	1993	n.a.

\* Have been replaced in 1993 by Core areas in the Ecologische Hoofdstructuur or by National Parks  
 \*\* Have been replaced in 1993 by WCL areas  
 Source: Ministry of Agriculture, Nature Conservation and Fisheries (1998)

already existed before 1906, however that year was important in that *Natuurmonumenten* purchased its first 'Nature monument'; the *Naardermeer* in Table 3.4. From that moment on the total area managed by this organisation increased strongly. At this moment (1999) *Natuurmonumenten* owns and/or manages around 300 nature reserves with a total surface of 78,000 hectares. The first private estates protected by legislation were brought under the estate act (*Natuurschoonwet*). At this moment a total of 1,354 estates make use of this arrangement (Ministry of Agriculture, Nature Management and Fisheries, 1998). In 1929, nature conservation was officially added to the tasks of *Staatsbosbeheer* and land in hands of this organisation obtained the status of state nature reserves (*Staatsnatuurmonument*). A large proportion of the land that is owned and/or managed by private organisations and government bodies has been brought under the *Natuurbeschermingswet* (1968) as nature reserves. In 1971 only 502 hectares of privately owned lands held this status and by 1996 the total had increased to 313,885 hectares; of which 36,478 are privately owned and 277,407 are state owned.

Although there were two private National Parks, *De Hoge Veluwe* and the *Veluwe Zoom*, already established through private initiative in the 1930s, government intervention in this field only started in 1980. In 1975 the report on national parks (*Nota Nationale Parken*) appeared in which a first selection was made of areas with potential (see also Section 2.5.1). National Parks are an important category in the context of this study, as two of the areas investigated have the status of national park and the third Dutch case study area, the *Lauwersmeer*, obtained the status of National Park in foundation (*Nationaal Park in Oprichting*) in 1999. The first National Park in The Netherlands, founded by Ministerial Order, was *Schiermonnikoog* in 1989. In 1999 ten National Parks and seven prospective ones were in existence. There are also three areas selected with potential for development, but this is currently under review (see Table 3.5 and Figure 3.3).

The definition of a Dutch National Park is similar to that applied by the IUCN:

*A National Park is a connected area of minimal 1000 ha, that exists of land and/or water, with special natural (including plant and animal life) and landscape qualities. In these areas nature must be maintained, conserved and developed, environmental education and research should be stimulated and nature related recreational activities should be enhanced.*

TABLE 3.5 National Parks in The Netherlands (situation 1999)

Name	Size (hectares)	Year of establishment
Veluwezoom	4,800	1930
Hoge Veluwe	5,400	1935
Schiermonnikoog	5,400	1989
Dwingelderveld	3,600	1991
Weerribben	3,345	1992
Groote Peel	1,320	1993
Biesbosch	7,100	1994
Meinweg	1,525	1995
Zuid-Kennemerland	3,800	1995
Maasduinen	1,560	1996
Loonse en Drunense Duinen*	3,400	1994
Drents-Friese Woud*	6,130	1996
Duinen van Texel*	4,300	1998
Oosterschelde*	35,000**	1999
Lauwersmeer*	5,800	1999
Utrechtse Heuvelrug*	6,000	1999
Alde Feanen*	2,100	1999

\* National Parks in Foundation  
\*\* Mainly water  
Source: Ministry of Agriculture, Nature Conservation and Fisheries, 2000

In contrast to the IUCN definition, land in agricultural use can be included in Dutch National Parks. However, such land is designated under the *Relatienota* policy (see Section 2.5.1), which means that in the long term these areas will become nature reserves (*Reservaatgebieden*). In National Parks land is usually in hands of the state (*Staatsbosbeheer*), private nature conservation organisations (e.g. *Natuurmonumenten* and *Provinciale Landschappen*) and/or private landowners. The management of National Parks overrules the ownership situation, which implies that the complete commitment of all landowners is needed before establishment can be achieved. National Parks must be open to the public, and all landowners and managers must actively participate in nature conservation and development; which should be centrally coordinated. Measures and instruments for nature management, education, research and recreation must be harmonised. National Parks are part of the *Ecologische Hoofdstructuur* as previously described. The foundation of a National Park is carried out by the Minister of Agriculture, Nature Conservation and Fisheries following the advice of the National Parks Commission.

Activities that produce a lot of noise will be excluded from National Parks as the Noise Pollution Act (*Wet Geluidshinder*) dictates. In addition, the national government also dictates that regional governments (the provincial authorities) must incorporate the territory of the National Park in their regional plan as a core area *Kerngebied* within the *Ecologische Hoofdstructuur*. In such areas nature and landscape conservation are the main management objectives and therefore any increase in other activities, such as habitation, intensive agriculture, recreation, large-scale infrastructural projects or quarrying are prevented by the local authorities. Local authorities are also required to apply a buffer policy to the area bordering such a *Kerngebied*. In these buffer zones a restrictive policy must be followed in relation to any activity that will negatively influence the environmental quality of the National Park.

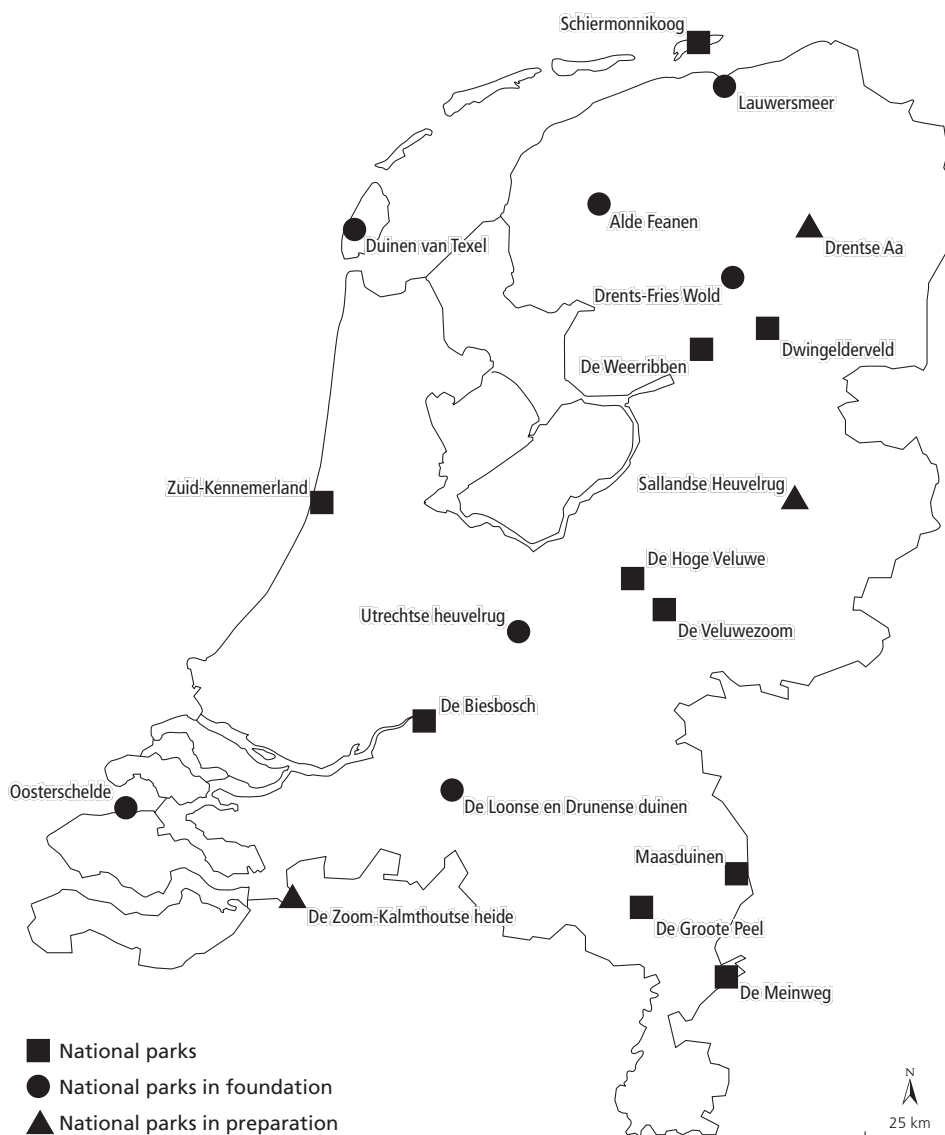
In 1975, the same year as the publication of the report on National Parks (*Nota Nationale Parken*), the report on national landscape parks (*Nota Nationale Landschapsparken*) was produced, in which a first selection was made of



areas that could potentially develop into a National Landscape (*Nationaal Landschap*) (see also Section 2.5.1). The location of the *Nationale Landschappen* was announced in the *Structuurvisie Natuur en Landschapsbehoud* (1981). These areas had to have a minimal size of 10,000 hectares and were characterised by pleasing landscape, high ecological value, and a rich history, which made them touristically attractive. Within these areas inhabitants, entrepreneurs, public bodies and authorities had to organise themselves to reconcile their often conflicting interests, in order to conserve and restore the value of the natural, landscape and cultural heritage. These *Nationale Landschappen* were usually composed of areas that already had been protected under different statuses and legislation, such as National Parks, GENS, GLEs (see below and Table 3.4), and privately and state owned nature reserves, and wetlands.

In the 1980s, beside the *Nationaal Landschap*, other area designations were also announced in the *Structuurvisie Natuur en Landschapsbehoud* (1981) which were aimed at protecting and recovering high landscape values. These

FIGURE 3.2 National Parks in The Netherlands (situation 1999)



were the protected nature unit (*Grote Eenheid Natuur*=GEN) and the large landscape unit (*Grote Landschaps-eenheid*=GLE) (see Table 3.4). A GEN needed to be an area with a minimum size of 1,000 ha. The reason for giving this status to such an area was an ecological one, which implied that certain natural communities had developed in a spontaneous way, or through human interference. The real protection of such an area was achieved through the application of existing legislation, such as the *Wet Ruimtelijke Ordening* (1965), *Natuur-bescherminswet*, *Wet op de Bodembescherming* (Soil Conservation Act) and through the acquisition of land under the *Relatienota* instrument.

A GLE was a much bigger area (minimum size of 5,000 ha.), which mainly consisted of agricultural land with high ecological, cultural, and landscape values. The difference between a *Nationaal Landschap* and a GLE was that recreation was one of the main objectives for the first category. Many of these GLEs have however been incorporated in *Nationale Landschappen*, which were normally composed of areas that already had different protection statuses. The advantage of bringing these different area designations together under the GLE was that greater consistency was brought to their development and management. After all, the main policy objective of the creation of the GENs and *Nationale Landschappen* was conserving and further enhancing the character of and the coherence between the different land use functions in these areas. As with all new area designations, the eventual allocation of the *Nationale Landschappen*, GENs and the GLEs was initiated by the national government, but the lower-tier governments were then required to translate such proposals into actual planning statuses in their regional and local plans. From 1988 onwards 17 *Nationale Landschappen* were appointed, 39 GLEs and 24 GENs. Two of the Dutch case study area of this study, the Dwingelderveld area (GEN *Dwingeloo-Ruinen*) and the Lauwersmeer area also became a GEN (see De Lange, 1993).

It transpired that the implementation of the policy for these GLEs and GENs was not a success. Overall the policy objectives were received positively by the lower level authorities, but there was much criticism because too few resources and instruments were available for efficient management of these areas. In addition, the policy objectives, which were defined by the national government, were too general and insufficiently responsive to the specific circumstances in the designated areas (see also Pleijte et al., 2000). Because of this, by the beginning of the 1990s it had already been decided to alter and simplify the area specific policy. In the 1993 *Structuurschema Groene Ruimte*, a new type of designated area category was introduced: the valuable cultural landscapes (*Waardevol Cultuurlandschappen*=WCL), which will replace the *Nationaal Landschap* and GLE area categories. Replacement of the GENs by either a *Kerngebied* in the *Ecologische Hoofdstructuur* or a *National Park* is also announced in this *Structuurschema Groene Ruimte*. The WCLs have to meet the following criteria (Pleijte, et al., 2000):

1. they consist of regions that are characterised by important nature, landscape and recreational values that give the total area its own specific character
2. both agriculture and forestry have important economic functions and are crucial for the maintenance of the character of the area
3. the specific characteristics of the area will become or are already threatened by changes in agriculture or other functions
4. they should be located in the green and blue zones appointed in the fourth planning memorandum (see also Section 2.5.1)

Contrary to the top-down approach pursued with the former area categories, a bottom up approach is followed for the implementation of the WCL policy. This means that the national government appoints the rough location of the WCL, but the provincial governments are asked to decide on the exact delimitation of the area. For the WCLs, an area plan (*Gebiedsperspectief*) is worked out in consultation with local groups. The provincial government has to create a coordination office and, in collaboration with local organisations, the initiatives as described in this plan are executed, including decisions on how the budget per WCL area is distributed over the different sectors and initiatives. In total 11 WCL areas have been appointed, but financial resources for the execution of the area plans will stop in 2001. What will happen afterwards remains to be seen.

The last group of designations are the areas with an international protection status. By the end of the 1960s international cooperation in the field of nature conservation started to become wide-spread and several international conventions were approved. For The Netherlands three Conventions are very important. The first is the World Wetland convention, which was held in Ramsar in 1971. The Ramsar convention was ratified in 1980

by the Dutch government. It aims at protecting wetland areas which are of international importance for the survival of bird species. Since The Netherlands contain much wetland, a large area has been brought under this convention. Between 1980 and 1996 nineteen Ramsar sites have been officially declared, but many more will follow in the future, e.g. the Lauwersmeer area is nominated to become a wetland area. The two other international designations are based on the 1979 Bern convention (Convention on the Conservation of European Wildlife and Natural Habitats). From this convention two EU directives have resulted: the EU-Birds directive (79/409/EEG) and the EU-Habitats directive (92/43/EEG). In both directives lists have been prepared of bird, animal and plant species that need special protection. All the areas that contain important habitats for these species have to be brought under protection by the EU member states. These areas will become part of the European Ecological Network; the Natura 2000 network. At this moment all EU countries are in the process of putting their existing and newly designated sites on the Natura 2000 list to be approved by the EC. According to the European Natura 2000 Barometer, seventy nine areas with a total of 10,000 km<sup>2</sup> have already been brought under the EU-Birds Directive, compared with only twenty seven in 1996. In addition, 76 were designated under the Habitat directive, covering a total of 7,078 km<sup>2</sup>. Together they cover almost 41% of the Dutch territory (European Commission, 2000). This proportion is very high because most of the Birds directive sites include large water surfaces, such as the Waddenzee and the Oosterschelde.

### **3.4.2 Nature conservation in the UK**

As already mentioned in Chapter 2, the preservation of the countryside plays a key-role in the UK rural planning system. Through the publication in 1949 of the National Parks and Access to the Countryside Act the path was opened to the establishment of separate areas in which nature and landscape could be protected, and recreational and educational objectives could be realised. Soon after the publication a National Parks Commission (NPC) and the Nature Conservancy (NC) were established. Under the 1949 National Parks and Access to the Countryside Act the first officially protected areas were designated. It also gave the Nature Conservancy powers to purchase, lease, or arrange agreements for management of land as National Nature Reserves.

During the sixties, more focussed planning was needed to handle the increased recreational pressure on the countryside, especially in the National Parks. In addition, under influence of other developments (see Section 2.5.2) the 1947 Act was modified in the 1968 Countryside Act. The National Park Commission was reorganised under this Act and became the Countryside Commission. An important development in the context of nature conservation was that the protection of nature and landscape outside the designated areas also became an issue of concern. To reduce the recreational pressure on National Parks, new Country Parks and picnic sites near major centres were allocated. The new Countryside Commission could become more actively involved in planning and management matters, not only within designated areas but also outside the designated areas. The strong emphasis on the importance of the use of the countryside for recreational purposes is also apparent in the appointment of a Special Committee on Footpaths and Access in 1946. This commission recommended that the County Councils should undertake a survey to map all rights of way in their territory. In the 1949 National Parks and Access to the Countryside Act the allocation of rights of way was arranged, an instrument which appears only in the UK rural planning system. According to the 1949 Act, the County Councils were to reach Access Agreements with landowners, or even access orders were to be made with compensation payments. These rights of way had to be mapped by the County Council, and since 1949 the allocation has been adjusted several times. In 1990 the Rights of Way Act arranged the current system of access. According to the Act, landowners are obliged to restore bridleways and footpaths after ploughing.

In comparison with The Netherlands, the situation in the UK is more complicated because differences in legal systems and designations exist between all the regions. This was especially furthered by the 1990 Environmental Protection Act, which established new specific administrative arrangements for nature conservation in England and Wales, Scotland and Northern-Ireland. Also from 1992 onwards it was decided that in England, English Nature would become responsible for conservation of nature and the Countryside Commission for countryside matters. However, in Wales the Countryside Council for Wales is responsible for both issues and in Scotland both are the responsibility of Scottish Natural Heritage. In Northern-Ireland there is no separate public body for

nature nor for landscape conservation. Since the UK study area is in England, the focus will be especially on conservation practice of this region. In Table 3.6 an overview is given of the most important protected area categories in England. These categories will be discussed in the following.

As in The Netherlands, conservation issues also involved the Forestry Commission. They were the first in England to set aside an area for recreational use: a Forest Park. This was an innovative step for this organisation, which until then had only one objective, which was the reforestation of land for timber production, to relieve Britain's enormous dependency on timber imports. In 1935 an exception was made to this policy when the Council for the Preservation of Rural England (CPRE) and the Forestry Commission formed an informal Committee to approve a plan for the conservation of the Breckland heath-forest region. The Forestry Commission's concern for nature conservation and recreational access was further increased in the second half of the twentieth century, especially in the 1960s, when the recreational use of the countryside was growing rapidly. The 1967 Forestry Act established that the Forestry Commission was allowed to create recreation facilities in its forests. In the 1980s, the stronger focus on the amenity, conservation, access, and employment function of forests by the Forestry Commission also resulted in a new designation the Forestry Nature Reserve. This status is given to the best conservation sites that are managed by the Forestry Commission.

TABLE 3.6 Main protected area designations in England (situation 1997)

Protection status	Date of origin (legislation)
Forest Park	1935
National Park	1949
Area of Outstanding Natural beauty (AONB)	1949
Local Nature Reserve (LNR)	1949
National Nature Reserve (NNR)	1949
Site of Special Scientific Interest (SSSI)	1949/1981
Heritage Coast 1970 Ramsar Site	1971
Site protected under the EU Birds Directive	1979
Area of Special Protection (ASP)	1981
Environmentally Sensitive Areas (ESA)	1986
Forestry Nature Reserve	1988
Site protected under the EU Habitat Directive	1992

Source: Bishop, et al, 1997

Through the 1949 National Parks and Access to the Countryside Act, separate categories of designated areas were created. Policy instruments also came into effect for the designation of National Parks in England and Wales and Areas of Outstanding Natural Beauty (AONBs). In addition, land was acquired for the creation of National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs).

Conservation interests and recreational interests were integrated in management objectives for National Parks. This was catalysed because already in the 1950s it was clear that there was a broad public interest in the preservation of the British countryside, and recreational pressure on the countryside was expected to increase greatly during this period. The main objectives of National Parks were therefore "the preservation and enhancement of natural beauty and promotion of enjoyment by the public" (Cloke, 1989, p 30). The emphasis in the designation as a National Park is especially on the visual amenity of an area; as becomes clear from the motivation which empowered the National Parks Commission to designate the parks:

*'those extensive tracts of country in England and Wales, as to which it appears to the Commission that by reason of their natural beauty and the opportunities they afford for open-air recreation having regard to their character and their position in*

relation to centres of population, it is especially desirable that the necessary measures shall be taken for the preservation and enhancement of their natural beauty and promotion of their enjoyment to the public' (Northumberland National Park, 1992).

By 1989, National Parks covered about 10% of the total land surface of England and Wales (Table 3.7 and Figure 3.4). Scotland had no National Parks until 1998. The UK National Parks do not correspond to the IUCN definition of National Parks, as they do not incorporate lands from which man's influence is excluded, nor land that is under some form of specific exploitation. It is rather the contrary, as all UK National Parks are characterised by cultural landscapes that are the product of centuries of often extensive agricultural use. Therefore the UK National Parks correspond to the IUCN category V; Protected Landscapes (see Section 3.3) and are more or less comparable with Dutch area categories such as *Nationaal Landschap* and *Grote Landschapseenheid* (GLE).

TABLE 3.7 National Parks in England and Wales (situation 2000)

Name	Size (ha.)	Year of establishment
Dartmoor	94,400	1951
Lake District	229,200	1951
Snowdonia	214,200	1951
Peak District	143,800	1951
North York Moors	143,600	1952
Pembrokeshire Coast	58,400	1952
Yorkshire Dales	176,900	1954
Exmoor	69,300	1954
Northumberland	104,900	1956
Brecon Beacons	135,100	1957
Broads	30,300	1989

Source: World Conservation Monitoring Centre, 2000

Every National Park has a National Park Authority (NPA), which is responsible for the management of the Park. The NPA is established by legislation and its membership composition is two-thirds county and district council representatives (see Annex 1) and one third, including the National Park Officer, independent members appointed by the Secretary of State for the Environment. The NPAs are also the planning authorities for the Park. This implies that they are responsible for giving planning permission for changes such as construction of new buildings, alterations and extensions of existing buildings, changes in land use, mineral extraction and waste disposal. The policies for the control of these developments are found in the National Park Plan, which has been produced by the NPA. However, the influence of the NPA on development is limited, as planning authorities have little control over so called permitted developments by statutory undertakings, such as electricity and water companies or the Ministry of Defence (MoD) and there is no clear-cut definition of what is allowed and what is not allowed. As in the Dutch planning system, the planning law does not cover agriculture or forestry, which means that conservation and access aims of the NPA can only be achieved through negotiation, and financial grants. However, many parts of National Parks are in the hands of nature conservation organisations (e.g. the National Trust) and are therefore managed as National or Local Nature Reserves, usually in close cooperation with the NPA. In addition, most agricultural areas in National Parks are under SSSIs legislation. This instrument was introduced through the 1949 Act and was reviewed in the 1981 Wildlife and Countryside Act. The Nature Conservancy Council (NCC) is responsible for the establishment and management of SSSIs. The NCC is obliged to provide any landowner or manager in an SSSI with a list of operations that are likely to damage the scientific qualities. Scientific interest refers to specific features of the flora, fauna or geology. The landowners or managers

FIGURE 3.3 National Parks in England (situation 2000)



are then obliged to inform the NCC about any planned changes in land use, in order to enable the NCC to enter into management agreements for which compensatory payments can be made available. In 1991 England and Wales contained 4,352 SSSIs (Cherry & Rogers, 1996).

NPAs are also responsible for the management of the National Park; which should be aimed at conserving nature, landscape, heritage and the enhancement of education and recreation. Like all planning authorities NPAs are required to produce a National Park Plan and a Local Plan (see Annex 1). These plans are subject to a five-yearly review and to formal consultations with the local residents and other interested groups. In practice the management tasks of the NPA consist of maintenance of paths, walls, hedges, buying land, setting-up of information centres and recreational facilities, and negotiating and advising on agreements on land management and access for the public. Their capabilities depend heavily on their budgets and the number of staff that can be employed. National Parks receive a yearly grant from the national government which is usually 75% of the total budget. The other 25% comes from local authority sources. There is moreover a trend that NPAs will have to compete with other nature conservation organisations for acquisition of their financial resources.

Other protected areas, that were designated under the 1949 National Parks and Access to the Countryside Act and are still extant, are Areas of Outstanding Natural Beauty (AONBs), National Nature Reserves (NNRs), Local Nature Reserves (LNRs) and Areas of Special Protection (ASPs). AONBs are areas with an attractive landscape that do not qualify for recognition as National Parks because they "lack extensive areas of open country suitable for recreation" (Countryside Commission, CCP 362, 1992). In 1988 there were 38 AONBs which covered 12.8 % of the total territory of England and Wales (Curtis, 1991). They were designated by the National Parks Commission (later the Countryside Commission), but the local authorities were made responsible for their protection. Usually there are development constraints in these areas and grant schemes are applied. NNRs are declared by nature conservation authorities under the 1949 and 1981 Act and they should be managed for conservation, education and scientific purposes. By 1991 174 of these NNRs were established (Cherry & Rogers, 1996). The ASPs were also created under the 1981 Act (Wildlife and Countryside Act). These areas are designated by the Secretary of State to provide protection for individual bird species under threat from human activity. The LNRs were also established under the 1949 Act, but by local rather than national authorities. They have the same management purposes as a NNR. Environmentally Sensitive Areas (ESAs) have existed since 1986, and they can be selected and designated by the Ministry of Agriculture and the Nature Conservancy Council. These areas are comparable to SSSIs and also the Dutch *Relatienota*. Within these areas farmers who undertake practices to maintain and enhance environmental and landscape quality can enter into management agreements. There were 22 ESAs in England in 1996 (Cherry & Rogers, 1996). Another important category of protected territory is the Heritage Coast, which is a non-statutory protected area established by the Countryside Commission and the Countryside Council for Wales; which was inspired by a National Parks Commission survey in 1960 which confirmed widespread erosion of coastal landscapes. There are 41 Heritage Coast areas in England and Wales, comprising the most undeveloped stretches of coast, and they must be designated in consultation with the local authorities. The management of such areas should aim at conservation of the natural and landscape features and facilitate their recreational use.

Finally, as in The Netherlands, the UK also ratified some international Conventions. In 1996, 119 Ramsar sites had been officially established. The contribution of the UK to the European Ecological Network; the Natura 2000 network consists of EU-Birds Directive areas and EU-Habitat Directive areas. According to the European Natura 2000 Barometer, 209 areas with a total of 8648 km<sup>2</sup> have already been brought under the EU-Birds Directive, and 386 sites were designated under the Habitat Directive, covering a total of 17,660 km<sup>2</sup>. Together they cover almost 11% of the UK territory (European Commission, 2000).

### **3.4.3 Nature conservation in Spain**

In Spain nature conservation ideas were taken up relatively early by the government. As industrialisation and urbanisation were late in this country, they were less influential on the evolution of conservation activities. The early Spanish inclination to conserve natural lands was catalysed especially by ecological concerns relating to deforestation, the increasing disappearance of virgin land, and the influence of internal and external ideas about the idolisation of nature and landscape values.

As mentioned before, Spain was the first European country to establish a regime for the protection of the natural environment. As early as 1918, two National Parks had been created. In this early period three other categories of protected territories were also devised, and several areas were designated with these specific protection statuses: protected natural area (*Espacio Natural Protegido*), under the royal decree of 1917 and, under a 1927 decree, areas of national interest (*Sitios de Interés Nacional*) and natural monuments of national interest (*Monumentos Naturales de Interés Nacional*). Unlike the Dutch and British situation, Spanish protected territories are mainly protected through specific legislation, while planning instruments have not been very important, although this has changed in recent decades.

Between the 1950s and the creation of the autonomous regions in 1985, several areas throughout Spain obtained these protection statuses, and seven National Parks were created, including the National Park of Doñana in 1978. In 1977 and 1989 the old 1916 national parks act (*Ley de Parques Nacionales*) was replaced by the new protected natural areas act (*Ley de Espacios Naturales Protegidos*, 15/1975) and the conservation of protected areas and of wild flora and fauna act (*Ley de Conservación de los Espacios Protegidos y de la Flora y Fauna Silvestre*, 4/1989). Under these the protection status of all categories of protected territories in Spain is arranged. Additional specific laws also have to be established for all National Parks. The 1989 act was especially needed for coordination of the national protection competencies regarding the role of autonomous authorities with respect to nature conservation, and to arrange for a juridical base for the Spanish implementation of the EU Habitat Directive. This act indicates on what basis areas can obtain protection status and how this should be worked out in physical plans. In the national 1989 act (*Ley de Conservación de los Espacios Protegidos y de la Flora y Fauna Silvestre*, 4/1989), the Ministry of Agriculture, Fisheries and Foods and ICONA (*Instituto para la Conservación de la Naturaleza*) were granted the legislative power to designate and arrange for the general guidelines, according to which areas must be protected. The main task of ICONA is the setting of these recommendations for the protection regime in the different designated areas, and to judge whether protection measures comply with the international guidelines to which the Spanish government has committed itself. Four types of protected areas were created in the 1989 act, which were designated on the basis of different criteria and obtained different protection regimes. They are National Parks (*Parques Nacionales*), Nature Reserves (*Reservas Naturales*), Natural Monuments (*Monumentos Naturales*) and Protected Landscapes (*Paisajes Protegidos*). The international protected area designations Spain committed itself to are the same as in The Netherlands and the UK. There were 38 Ramsar sites in Spain in 1996. The number of sites designated under the EU Birds Directive amounts to 260, and under the Habitat Directive there are 937. According to the European Natura 2000 Barometer (European Commission, 2000) the total area covered was 141,678 km<sup>2</sup>, which is 29% of the whole land area of Spain.

A complicating factor that delayed the implementation of the physical planning regulations in the protection regimes, was the redistribution of competencies between the national and regional (autonomous) governments after the introduction of the new Constitution in 1978. Since that date the autonomous government has been responsible for physical planning. A transition period was needed for the reassignment of this task, which slowed down the development of regional land use plans by the autonomous authorities. This further complicated the process of checking the local plans, prepared by the lower-tier municipal governments, against the main regional plans. In practice it meant that municipalities had very little higher level guidance. For many designated areas it meant a long delay before the land use regulations in the local plans were brought into accordance with the regime needed to protect the ecological, cultural and landscape values of these areas (see also Annex 1).

The *Parques Nacionales* in Spain comply with the definition of National Parks as developed by the IUCN, the category II areas (National Parks, see Section 3.3.1). The *Reservas Naturales* are areas that should be protected because of the presence of unique and fragile ecosystems and species. Exploitation of resources is not allowed in these areas unless it is compatible with the necessary protection of ecosystems and of rare species. Areas are designated *Monumentos Naturales* if they contain geological as well as ecological elements that are unique, rare or have an exceptional beauty. In these areas the land use regulations are less strict than in the *Reservas Naturales*. In the *Paisajes Protegidos*, the conservation is mainly aimed at protecting aesthetic and cultural assets, and in these areas too the land use regulation are less strict than in the *Reservas Naturales*. For the *Parques Nacionales* and the *Reservas Naturales*, the national government dictates that two types of plans have to be worked out and approved before the final designation of a protected territory can be confirmed. The first plan, 'Plan Rector de Uso y Gestión'



(PRUG), is a nature conservation management-plan, which establishes priorities for the management of the ecosystems and guidelines for public access. The second is the 'Plan de Ordenación de Recursos Naturales' (PORN), which manages the practicalities of the use of natural resources within the protected territory. Both PORN and PRUG have to be prepared by the managing technical staff of the park, and approved by the 'Junta Rectora' of the park, which is usually the national government and/or the autonomous government. Local and regional land use plans have to be in accord with the PRUG and PORN. The 1989 act also allows lower tiers of government the opportunity to establish a buffer zone around *Parques Nacionales* and *Reservas Naturales*, in which sustainable socio-economic development should be stimulated. The economic activities that are allowed must be prescribed and funds have to be available for compensation payments for the constraints imposed.

The 1989 act dictates that the National bodies should leave enough freedom to the autonomous authorities to widen and further detail the protection regime of designated areas and to increase the area that brought under it. The autonomous authorities may also create additional categories. Because of this, since 1989 there have been great changes. The total area under protection has greatly increased, and the further implementation of the protection instruments between the autonomous regions has started to diverge. To describe the way designated areas are protected the focus will be on the autonomous region of Andalucía, as this is the region where the Spanish case study area, Doñana, is situated.

TABLE 3.8 Protected area designations in Andalucía

Category	Number of sites	Total area (ha.)
Parques Nacionales	1	50,720
Parques Naturales	22	1,369,867
Parajes Naturales	31	63,222
Reservas Naturales	28	4,369
Reservas Naturales Concertadas	2	8
Parques Periurbanos	3	3,238
Total	87	1,491,423

Source: Junta de Andalucía, Consejería de medio ambiente, 1996

In order to further implement the policy of nature conservation in the Andalusian autonomy, the Andalusian government approved the *Ley de Inventario de Espacios Naturales Protegidos de Andalucía* (Andalusian act for the creation of protected natural areas, 2 /1989). This act is of necessity compatible with the National 1989 Act, as described above. All designated areas in Andalucía have been brought under the Andalusian 1989 act. In total the Andalusian government has designated twenty two *Parques Naturales* and twenty eight *Reservas Naturales*; categories formulated by the National government; but there are also three types of protected territory specific to Andalusia: 'Parajes Naturales', 'Parques Periurbanos' and 'Reservas Naturales Concertadas' (Table 3.8 and Figure 3.5). The only National Park of Andalucía, Doñana, had already been declared in 1978 by the National government. Protected areas cover 17% of the total surface of Andalucía, which is very high in comparison to most other autonomies in Spain; only the Balears and Canarias have a higher proportion.

### 3.5 Nature and other activities in rural areas

This Section investigates the ways in which protected nature influences other activities in rural areas. The studies mentioned in Section 3.2 suggest that natural views and being surrounded by nature can be very beneficial for people's physical wellbeing, fitness and self-esteem (e.g. Driver et al., 1987 and Levitt, 1988). The presence of

FIGURE 3.4 National Parks (Parques Nacionales) and Natural Parks (Parques Naturales) in Andalucía (situation 1996)



nature has also been found to have a positive influence on the healing process of patients, and on people's contentment at work (Kaplan et al., 1988 and Ulrich, 1979 & 1981), as well as on residential satisfaction (Kaplan, 1983). Given these findings, it is assumed in this study that the presence of nature may attract residents, and new activities to an area. This attraction can have positive and negative effects for the local people, the rural economy and the ecological and cultural values of an area. In the following, the relationships between the presence of nature and the development of activities such as residence, tourism and other business activities will be discussed. Although the central relationship investigated in this study is between protected nature and residential development, relationships with economic and recreational activities are also discussed, because residential changes in rural areas cannot be understood without paying attention to other factors that influence behaviour regarding residential choice and satisfaction. In addition, the presence of protected natural areas may also influence residential activities in an indirect way through impacts on the economic and recreation activities.

### 3.5.1 Nature and residential activities

The attraction of a green living environments is not a new phenomenon. Two centuries ago, people had already started to build villas in t'Gooi and along the river Vecht, Dutch regions with plentiful natural amenities not far from Amsterdam. In the UK there are several comparable cases of environmentally motivated population flows since the 18th century. However, what makes the recent situation different from former times is the great increase in the number of people who have become able to act on non-economic motivations to increase their quality of life. Also distances have become easier to manage by most people, making larger parts of the countryside attractive places to live. This change is not unnoticed by the British Government which in its report 'This Common Inheritance', phrases it as follows:

*'As people have enjoyed the benefits of economic growth, they have become increasingly preoccupied with the quality of their daily lives. This can be seen in aspirations for healthier living, in the desire for cleaner air, water and streets, in popular enthusiasm for protecting the best of our urban and rural surroundings.'*

(Department of the Environment, 1990, p. 8).

The presence of nature or natural elements such as trees were reported to be responsible for higher residential

satisfaction (Kaplan, 1983 & 1985; Frey, 1981 and Fried 1982). Fried's study in the US indicated, for example, that ease of access to nature was the strongest predictor of residential satisfaction and this again was a very important component for life satisfaction. Also Kaplan and Kaplan (1989) showed that views of gardens, woods and trees added strongly to the residential satisfaction of people. They also found that nature that was most immediately available has the greatest impact.

An important field of research on the impact of protected nature on the residential choice of people comes from studies carried out in the environs of the Yellowstone National Park. Rasker (1993) discovered that the Greater Yellowstone Ecosystem (GYE) is in a unique position in comparison to many other rural areas because of the high occurrence of quality 'locational assets' like 'vast expanses of wilderness, breathtaking scenery, clean air and abundant wildlife' (Rasker, 1993, p 120). This is also shown by Rudzitis and Johanson (1989) who found that 'amenities and quality-of-life factors are increasingly important to people's decisions about moving ... as incomes rise, allowing millions of urban people to act on their preference for more rural surroundings, areas with plentiful natural amenities may gain population at a proportionately higher rate than counties without environmentally desirable attributes'. Jobses (1993) put the findings of Rasker in relation to the GYE in a broader perspective. From one side, Jobses also agrees that areas with many natural amenities attract relatively more people and enterprises than areas lacking natural amenities. However, he also found that 'many migrants move on so quickly in these areas that they are hardly distinguishable from tourists'. The economic effect of these new immigrants on the region is therefore less extensive than expected. Jobses also emphasises that the increased attraction of people and economic activity to the GYE may 'pose the greatest potential threat to the area as a natural system' (Jobses, 1993). So the high quality of life, which is the reason for many people and companies to settle down in the area, might be affected in a negative way.

Pacione (1984) also refers to similar residential choice considerations of ex-urbanites in the UK, who moved to dormitory settlements. Amongst other factors, particular importance was attached to a superior natural environment determined by characteristics such as peace, quiet, fresh air, space and recreational opportunities. Jones (1982) and Forsythe (1982) found, when searching for the migration motives of English and Welsh born people who moved to rural Scotland, that responses referring to scenic beauty, tranquillity, space, remoteness and outdoor recreation were very important. For The Netherlands in a study done by Wassenberg et al. (1994) it became clear that people find the nearness to nature in their residential environment very important (Table 3.9). The Dutch National Spatial Planning Agency (RPD) (see Ministry of Housing, Physical Planning and Environment, 1997) conducted a survey among a thousand Dutch citizens about the significance they attached to aspects of their residential environment. It turned out that a green neighbourhood and proximity to nature were the characteristics that were most appreciated, and came before aspects as presence of shopping facilities or nearby availability of public transport.

TABLE 3.9 The significance attached to specific characteristics of the residential environment by potential residents of VINEX <sup>1</sup> locations in The Netherlands

Facilities	% of respondents that found it very important
Proximity to shopping centre	59
Proximity to natural area	50
Proximity to motorways	32
Proximity to big urban centres	30
Proximity to work	26

Source: Wassenberg et al., 1994  
 (1) VINEX locations are the greenfield locations as specified in the Fourth National Spatial Planning Memorandum Extra (VINEX).

The appreciation of nature in the nearby residential environment is also reflected in prices of real estate. In The Netherlands, Fennema et al. (1996), showed that the value of houses were 6% to 15% higher when located near a park. In a study of Van Leeuwen (1997), in which real estate agents were interviewed, the value of houses with nearby green amenities was higher than that of houses without. For an average semi-detached house with garage the value was 7% higher if it was located directly beside green amenities. If this same house was located in a region with many green amenities, the value was 6% higher. If this house was located directly beside green amenities in a region with many green amenities the value was even 14% higher. In another piece of Dutch research by Luttik & Zijlstra (1997) the prices of houses with nearby green amenities, or near water, and of houses without these features were compared. It was proven that the value of houses with a green view was 5% to 8% higher. The presence of water beside the house increased the value even further, by 28%. Powe et al. (1995) and Willis and Garrod (1992) calculated an increase of about 5% for dwellings near forests in England. Higher prices increase the pressure on the local housing market in rural areas with natural amenities. The pressure in several English National Parks is well-known (Shucksmith, 1987 and 1990). The negative externalities of the presence of natural amenities have become clear in the case of the English Lake District National Park. In the 1980s the Lake District Special Planning Board came into conflict with central government when attempting to solve the difficulties local people have obtaining housing. In this region there is great demand for permanent housing and second homes, usually from higher income groups from outside the local area. Shucksmith (1981, 1987 and 1990), studied the consequences of this pressure on the local housing market. He showed that there is strong competition for housing between local buyers and holiday and retirement home buyers at both ends of the housing market, especially within the bigger settlements and the most attractive parts in the Lake District. Because it concerns competition in all types of housing categories, it is very difficult to intervene in this process. Entry to the housing market for the local low-income and even middle-income groups is very difficult in this area. Waiting lists for council housing are also long, since few existing council houses become vacant and there is hardly any possibility of enlarging the public housing stock, because of the strict building regulations within NPs. Also in several natural amenity rich areas in The Netherlands, municipal councils have felt obliged to take measures to secure the entry of local groups to the housing markets. It is clear that the higher housing value may lead to an automatic selection of newly settling households on the basis of income. Several studies have also showed selectivity in the group of people that have moved to amenity rich rural areas. This selectivity is not only related to socio-economic status, but also to preferences and to the lack of constraints that certain groups have in selecting a place to live, i.e., no children and no ties to a work location. In many counter-urbanisation studies in the UK the domination of the working middle class in the migration population is emphasised (Clope and Thrift, 1987; Phillips, 1993; Lewis, 1998 and Fielding, 1996 & 1998). This dominance is explained by the higher flexibility of middle class households in choosing a place to live. A similar observation is shown in a study of Schutjens et al. (1998, p. 85), in which the flexibility of high income and education groups becomes clear from their ability to move over longer distances than those with lower standards of income and education. In the case of US research, for example, Frey and Johnson (1998) observed in the urban to rural migration process that rural areas with many natural and recreational amenities have a higher chance of attracting middle-class workers. In addition, research done by Jobes (1993) indicates that people in the GYE can be characterised as well-educated and wealthy. However, the opposite was shown in a study done in Australia by Hugo and Bell (1998). It was more often the lower income groups that dominated the population flow towards amenity rich rural areas. The explanation for this is, however, the same as in the former studies mentioned: lower income groups may be more flexible in choosing a place to live because among them there is an over-representation of early retirees and unemployed who are not caught in the urban labour market. For these people the lower living costs, the availability of housing, together with the presence of natural and rural amenities in which they could spend their large reservoir of spare time, were reasons to move to these areas. Research done by Fielding (1992), Fuguitt and Heaton (1995), Shucksmith (1991), Warnes (1992), and Champion (1998) showed that people approaching retirement age are more likely to move into amenity rich rural areas. Again this is not surprising, as the residential choice of this group of people is more often motivated by the quality of the living environment than by employment reasons (see Fielding, 1992; Filius, 1993; Mulder, 1993; Boyle et al., 1995; van Kempen et al., 1995).

Finally, it has also been shown that there is a higher concentration of second homes in amenity rich areas. From the Social and Economic Atlas of Britain by Champion et al. (1996) it becomes clear that most of the second homes and holiday cottages are found in or near designated areas with statuses like National Park, Area of Outstanding Natural Beauty or Heritage Coast. In The Netherlands most of the holiday cottages and second homes are found in the coastal areas, especially the province of Zeeland in the south of the country, and in rural areas with many natural amenities and/or the attraction of recreational water, such as Friesland, Overijssel, Drenthe and Limburg (see Thissen, 1978; CBS, 1994 and Ypma, 1997). In Spain this pattern is also recognisable; coastal areas have a high proportion of second homes, but also rural areas show a high concentration: more than 30% of the second homes are found in the smallest rural settlements (<2000 inh.) (Camarero, 1993).

### **3.5.2 Nature and economic activities**

The presence of protected natural areas may lead to the creation of extra labour opportunities, but it may also be an employment constraint. However, this depends on several aspects, such as the management regime of the protected territory and the planning and legislative restrictions in place. Exploitation of natural resources is usually restrained in protected territories, but many still allow extensive economic activities. For example, in the case of Northumberland National Park, almost the whole territory is used by farmers for extensive livestock farming and by forestry companies for timber production. In the National Park area of Doñana, no economic activity is allowed at all, although some concessions are given to a few people to continue their traditional activities in the area. Estimating the precise effect of the presence of a protected area on the labour opportunities is therefore very difficult. Another phenomenon, which should also be taken into account, is the indirect labour effect of economic activities that are attracted by the presence of natural amenities. These may be touristic and recreational activities, but they can also be economic activities that are started by people that want to live and work in an attractive natural environment. These entrepreneurs are attracted to the area by what Wever (1993) calls the 'soft' locational considerations. These are the attractive living conditions, which amenity rich rural areas can offer to attract new entrepreneurs to rural locations. These considerations have become more determinant because businesses like many households are now less rooted in a particular place, i.e. 'footloose'. North and Smallbone (1993) also reported that 'most new firm founders in the rural areas were not born locally; they had usually moved to the countryside prior to the setting up of the firm'. They created jobs for themselves at the place where they wanted to live. Rasker (1993) has studied the changes and developments in the economy of the Greater Yellowstone Ecosystem (GYE). He came to the conclusion that 'the scenery, wildlife and wild features of the ecosystem are largely responsible for the region's growing economic diversification'. In the last 20 years the economy of the GYE has diversified and shows an increase in entrepreneurial activity. In particular, small businesses and service industries have grown. Rasker explains the typical growth trend by two phenomena. Firstly, more and more managers/owners of place-independent, i.e. 'footloose', businesses decide to move to rural areas which provide desirable residential conditions. There is no longer any need for them to be situated in central locations like big cities because of advances in telecommunications and the rise of the knowledge-based service economy. Secondly, there are more and more people who prefer to live and work in rural surroundings with many natural amenities. These phenomena are confirmed by others, such as Birch (1989) who wrote that 'the successful, innovation based company will, in general settle in an environment that bright creative people find attractive' and in order to keep workers content, must provide a setting with a high 'quality of life'. Finally, there are Whitelaw and Niemy (1989) who state that 'the economic development process is increasingly characterised, not by jobs-first-then-migration, but by the reverse'.

### **3.5.3 Nature and tourism**

The relationship between the presence of protected nature and the attraction of tourists to an area is one of the issues most discussed in the literature on this subject; which usually refers to such activity as eco-tourism, because it involves visiting a natural area with the specific objective of enjoying the ecological and cultural values. Tourism can have positive and negative effects on the nature area itself, and on the socio-economic development of the regions in which the designated area is situated (see Box 3.2). Mathieson and Wall (1982) divided the impacts of tourism into economic, social and physical. Many others chose the division between positive and

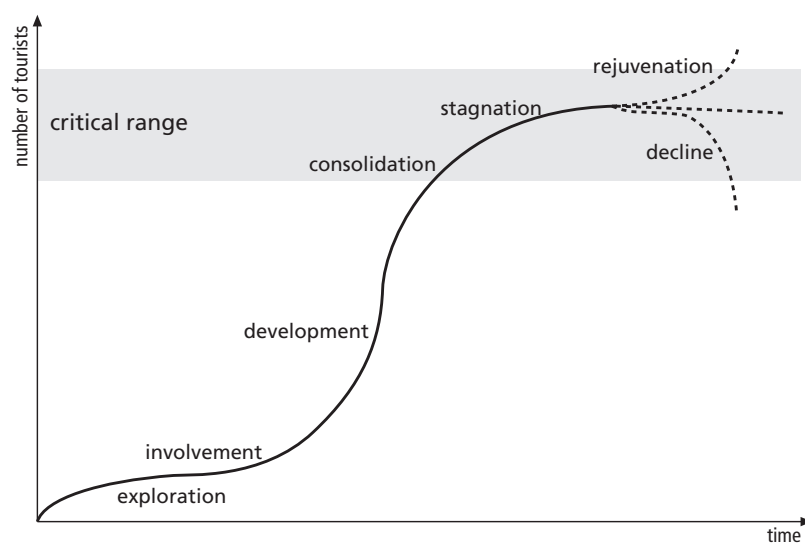
negative impacts (see Williams, 1998 and Hall & Page, 1999). The negative and positive effects of tourism, especially related to the presence of protected nature in rural areas, can be illustrated by the results of several examples of research done in this field.

Wescott and Williams (1994) examined the economic impact of the declaration of a new Australian National Park, the Grampians National Park, on the surrounding community. An important outcome of their study was that there was a detectable increase in high quality accommodation in the surrounding region of the newly declared park, while in an older park, which they used as a reference area, no increase was detected. The main conclusion was therefore that a declaration of a designated area stimulates and diversifies economic activity in rural areas. Examples of positive economic impacts, as opposed to negative social and environmental effects, were found in the case of a tourist development project in the US Havasupai Reserve. The relationship between the Havasupai tribe and tourism is quite complex because, although the tribe is economically dependent on the tourist industry, they in fact have no other choice. When the Grand Canyon National Park was established the Havasupai Tribe, which had led a nomadic existence, was suddenly confined to the village of Supai. As a result, in due course, the tribe had to abandon many of its traditional activities and tourism, was a good alternative. White (1993) investigated the economic feasibility of new tourist services for this tribe. The main conclusions from his research were that, at present visitor levels, the tourism facilities provided were only marginally economically feasible. If the Havasupai tribe wanted to earn more money from the tourist industry they needed to attract more tourists. This would, however, have negative effects on the ecological and cultural assets of the area, and would disrupt the Havasupai's traditional way of life.

The positive and negative impacts produced by tourism on rural regions, and the difficulty of determining what the maximum permitted number of tourists should be, before it becomes a self-destructive activity, is well illustrated by the so-called 'tourism life cycle' (see Figure 3.5). This concept originates from the micro economics theory and gives an ideal typical development of the growth and decline of consumption of goods. The geographer Butler (1980) suggested applying it to the development of tourism in regions. In several studies this life-cycle approach was applied to the development of tourism (e.g. Cooper, 1992; Gordon & Goodall, 1992 and Johnson & Snapenger, 1993). According to this concept, well-established tourist areas pass through several stages (see Figure 3.5):

- The earliest stage is the 'exploration stage'. In this stage some tourists of non-local origin visit the area because they are attracted by natural and cultural amenities, but their numbers are still small. Tourist numbers hardly affect the social and cultural environment of the area.

FIGURE 3.5 The tourism life cycle



**Box 3.2: Benefits and negative impacts from tourism**

(after Jacobson & Robles, 1992; Dietvorst, 1993; Williams, 1998 and Hall & Page, 1999)

**Positive****A. Economic impacts:**

- Creation of employment
- Local expenditure
- Diversification and stimulation of local economy especially in isolated rural areas.
- Increased awareness of the region as tourism destination or place to live and/or work
- Creation, maintenance or improvement of new facilities, services or infrastructure
- Increase in real estate value

**B. Socio-cultural impacts:**

- Strengthening of local cultural values
- Stimulation of endogenous development
- Increased awareness of non-local perceptions and values
- Increased national and international awareness of the region
- Maintenance of the service level and better accessibility

**C. Environmental impacts:**

- Improved conservation of ecological and cultural values (planning security)
- Improved visitor management strategies
- Increase in resources for environmental conservation

**Negative****A. Economic impacts:**

- Provides an unstable source of income;
- Creation of low paid and low skilled employment
- Too many tourists coming to a region may destroy the tourist industry (tourism can be a self-destructive activity);
- Investments to attract tourists to a region may be high and success is uncertain
- Real estate speculation

**B. Socio-cultural impacts:**

- Loss of cultural identity and local values
- Segregation of local residents
- Increased real estate value leading to scarcity on the local housing market for local people and low income groups
- Too many second homes may stimulate breakdown of the local community
- Increase in crime

**C. Environmental impacts**

- Air and water pollution
- Architectural adulteration
- Scarcity of resources such as water and electricity
- Damage to ecosystems and disturbance of wildlife
- Damage to heritage
- Overcrowding, traffic congestion

- In the second stage, the 'involvement stage', the number of visitors to the area starts to increase. The local community begins to adapt to the tourist trade, though with minimal planning and provision of facilities. A tourist season can be identified.
- In the 'development stage' there is a well-defined tourist market and a peak season for visitors. Large numbers are attracted. More control from outside the region comes in to coordinate and staff the tourist facilities. Regional and national planning authorities get more influence. It is at this stage that a further increase in visitor numbers will lead to negative impacts on the local economy, socio-cultural structure, and the environment. At this point the need for sustainable management strategies is highest, which may prevent that the situation from shifting to the next stage.
- If the area declines in popularity, and the rate of increase of visitors starts to fall, the tourist area enters into the 'consolidation stage'. At this stage tourist spending is a major part of the local/regional economy and some negative effects of tourism are perceived in the area. Often speculators are attracted to the region to earn money from short-term investment.
- In the 'stagnation stage' visitor numbers level off. This can happen if the area is no longer fashionable to visit, and significant negative social, environmental, and economic impacts on the local community will be the result.
- In the 'declining stage' visitors are lost to other tourist areas. There is a high property turnover and tourist facilities are replaced with non-tourist facilities. Day trips start to dominate.

Johnson and Snapenger (1993) investigated whether the Greater Yellowstone Ecosystem (GYE) was in the 'stagnation stage' or the 'declining stage'. Their findings were that the tourist service business sector continued to be in a growth phase, and as a result the local economy in general was also growing. Overall local attitudes towards tourism were favourable because it encourages cultural activities and cultural exchange. Other positive effects were that tourism had stimulated the declaration of new protected territories, and it encouraged the maintenance of high standard local facilities. Negative effects were related to over-crowding, which caused traffic problems and stress to wildlife. Johnson and Snapenger concluded that "the tourism market forces may continue to seek growth, whereas the ecological components will struggle to maintain integrity". They advised that problems associated with increased visitors should be addressed before the economic, social and environmental forces entered the critical 'stagnation stage'.

### 3.6 Summary and conclusion

Central to this chapter is the function of protected nature in rural areas within the context of the post-1945 rural restructuring process. The answer to the second research question of this study is investigated:

1b. *How did the post-1945 rural restructuring process in The Netherlands, the UK and Spain affect the nature conservation activities in rural areas?*

Overall, it has been shown that nature conservation has become increasingly important in the post-1945 period and that the presence of protected natural areas can be perceived as an important endogenous quality of rural areas, supporting regions to attract new consumption orientated activities. It also implies that nature conservation plays an important role in the rural differentiation process. Although these general conclusions apply to all three countries studied, important differences and similarities have been found in the way the function of protected nature developed in the post war period in The Netherlands, the UK and Spain (see also Annex 3).

#### *Attitudes towards nature and public involvement in nature conservation*

Overall, attitudes towards nature have changed through the centuries and went together with an increased human intervention in natural processes. As a result, untouched natural areas in western European countries hardly exist anymore. However, the shift towards an overall positive valuation of nature, and increased concern about the disappearance of natural, cultural and landscape qualities in past centuries have mobilised public, scientific and government interest to take measures to conserve the natural environment. In recent decades this



process has become particularly clear, through increased public participation in nature conservation and an increase in nature conservation organisations and their institutionalisation. Although this process was fairly uniform in all three research countries, Spain lagged behind (see also Annex 3). In The Netherlands 35% of the population are members of or donors to a nature conservation organisation; which is more than twice that in the UK and three times the proportion in Spain. Although the causes of these differences are various, and can be sought in specific socio-economic, historical, cultural, political and environmental characteristics, there are three plausible reasons that partly explain them. These are differences in income levels, in the urbanisation process, and in relative scarcity of undisturbed natural lands. Higher income countries showed a higher public participation in environmental organisations and, since Spain has a lower gross domestic income per head than the other two countries, this may be one reason. The second reason pertains to less and relatively recent urbanisation. Spain therefore still contains more rural population groups, and people who have only recently exchanged their rural life for one in the city. It is expected that rural populations are less inclined to be involved in environmental organisations than urban people. The third reason could be that Spain still contains more relatively undisturbed natural areas, while in The Netherlands and the UK these lands have virtually disappeared; which makes natural attributes more scarce and therefore more sought after. Although public involvement in nature conservation organisations is much lower in Spain, one does see that the proportion of people participating in environmental demonstrations is higher in Spain than in The Netherlands and the UK. This implies that the people who are involved are more active in pursuing their goals, because their organisations are still young, less institutionalised and therefore still have a long way to go to build up their position as power groups.

#### *Conservation and management of protected natural areas*

There was a considerable increase in the number of categories and also in the total area of designated land, as well as an increased government involvement in nature conservation, especially as part of rural policy. Overall, since the war, there has been a gradual shift in attitude towards rural areas, from a situation where no attention was paid to nature conservation to its current central role in the development of area specific, integrated, rural policies. Although the developments described above are fairly consistent in the three countries studied, important differences have occurred, which led to variations in the context within which the relationship between nature and residential function was investigated. Firstly, there are clear differences in approaches to nature conservation, area designation and area management. Secondly, there are differences in the way in which nature conservation has been integrated into rural policy.

In Spain nature conservation ideas were taken up relatively early by the government as it was the first European country to establish a regime for the protection of the natural environment, far before the Dutch and British did. In spite of this, concern for the natural environment in Spain is not so widely spread among the public and integrated approaches towards nature conservation have not been developed as far as in the UK and The Netherlands, both in relation to combining functions and to involvement of local population groups.

At this moment the UK has the highest proportion of designated land, Spain has the lowest and The Netherlands is intermediate. In comparison with the other two countries, the designated areas in Britain are not subject to a very strict protection regime; in the sense that exploitation and habitation are still allowed in these areas and human interaction with nature is still very intensive. In Spain the proportion of designated land is relatively small, but in absolute terms Spain still contains the biggest area of relatively undisturbed land, of high ecological quality, where no human occupation or intervention is allowed. The Netherlands have a relatively large number of designated areas of small average size, whereas in the UK and Spain the average size is much bigger, which adds to the survival possibilities of species.

The ability to concentrate management on the conservation of natural resources of designated areas is easier in The Netherlands than is usually the case in the UK and Spain, because the proportion of land in the hands of both private and public conservation organisations is higher. This is not surprising because the relatively smaller size of natural areas makes acquisition a more rational option than in the UK and Spain. The Netherlands are a densely populated country with strong competition between different land use functions which, in conjunction with the motivation behind the acquisition of land for conservation purposes, at the beginning of this century,

explains the relatively small size of natural areas. In The Netherlands, until the beginning of the 1960s, conservation was mainly arranged through acquisition of land and legislation, since planning arrangements did not have much influence on the countryside at this time (see also chapter 2). However, from the 1960s planning policy became more influential in Dutch rural areas, and this enabled both government authorities and nature conservation organisations to exert more influence on policy development in favour of environmental and nature conservation. In the beginning of this period there was still a tendency to separate nature from other functions, but this has diminished. In the 1980s especially, several plans appeared in which new instruments were created to further stimulate the integration of nature and landscape into wider rural policy and to better protect the quality of the natural environment. The introduction of the *Relatienota* approach, through which parts of agricultural land are designated as nature development areas or as reserve areas in order to acquire these as nature reserves in the long term, and the creation of the *Ecologische Hoofdstructuur*, an ecological network, was a logical step in this process. In practice it means that a lot of effort needs to be invested to connect the existing natural areas with each other. The restoration and creation of nature is therefore one of the key priorities in the Dutch approach. In the 1990s the integration of policy for different functions in rural areas reached its climax, through the Area Specific Policy (*Gebiedsgerichtbeleid*). Several initiatives were taken and these were also improved with recently available knowledge. This policy saw a shift towards a bottom-up approach, in which increasingly more attention was paid to the specific circumstances within areas and to the involvement of local population groups in policy implementation and decisions on distribution of resources.

Wilderness areas had already disappeared from the UK by the beginning of the industrial revolution. The conservation philosophy was very different from the Dutch and Spanish approaches. In the UK both public and government involvement in nature conservation was very much steered by nostalgic feelings for the disappearance of the pre-industrial, rural landscapes, and the recreational use of rural areas. The acquisition of land for conservation purposes, especially if these were ecologically motivated, did not receive much support from either government or landowners. Therefore, when the government needed to incorporate the concept of conservation in its rural policy, the emphasis was much more on the preservation of rural, aesthetic, cultural, and recreation aspects and less on ecological values. Designated areas could therefore be of a much bigger size, because the location of them was determined by cultural and aesthetic merit, not by ecological values. Almost all designated areas in the UK are cultural landscapes, where most of the land is owned by the users and where conservation is combined with other land-use activities, such as agriculture, forestry, residence and recreation. Therefore there is less emphasis on the acquisition of land for conservation purposes, but conduct of these areas is controlled through planning regulations, management agreements and consultation. This also implies that the management of the ecological, cultural and aesthetic resources in these areas is dependent on the willingness of the landowners and managers to co-operate in the conservation programmes.

In Spain the situation was very different at the beginning of the 19th century, because it still contained relatively more wilderness areas, which were often concentrated in the hands of a few people who used them as hunting grounds. The establishment of National Parks on these lands was therefore an obvious and relatively easy step for the national government. The philosophy behind conservation in Spain was different again from that in The Netherlands and the UK. The early Spanish inclination to conserve natural lands was more the result of ecological concerns relating to deforestation, the increasing disappearance of virgin land, and also the fashion for idolisation of nature and landscape. It is not surprising that the American National Park concept, in which the emphasis is on wilderness, influenced the Spanish approach, given the much higher proportion of open, untouched, natural lands. Designation of areas was therefore not a complicated process in Spain, however, the implementation of a conservation regime was much more complex. Firstly, government involvement in these areas is often limited, because most parts of the designated areas in Spain are in private hands; which makes control of developments and ecological management more difficult. Acquisition of land is not often an option, since it usually concerns huge territories and the conservation budget is limited. Conservation measures and access need to be negotiated. In Spain the protection is first arranged by legislation, which needs to be translated into planning, land-use regulations. However, this process has been very slow, because of the late introduction of rural planning policy, and the decentralisation of planning capabilities to the autonomous governments. The present division of national and regional competencies for different types of designated areas further

complicates the situation. It is also a reason why the integrated approach towards nature conservation in Spain have not been developed as far as in the UK and The Netherlands, not only with regard to combining functions, but also in relation to the involvement of local population groups.

#### *Nature and other activities in rural areas*

Although the influence of protected nature is highly dependent on the way the areas are managed, the regime in place, the characteristics of the natural area itself, and the local and national circumstances under which such a provision exists, there are some general assumptions that can be made about the relationship between protected nature and other activities in rural areas. Overall, it has become clear that natural areas are able to exert positive and negative influences on individuals, and on the development of rural areas, through the relationship that exists between nature and residential, economic, and recreation activities.

It has been shown that nature provides recreational opportunities and has a positive influence on people's physical wellbeing, fitness, self-esteem, healing processes, contentment with work, and residential satisfaction. Beside these aspects, protected nature may also give planning security, because within and near protected natural areas specific measures are usually applied that help to maintain the ecological, cultural, landscape, and aesthetic qualities of an area. This suggests that, as a result of planning measures, the quality of the living environment of people who live within or near a protected territory will be more secure than in other rural areas. The positive appreciation of nature in the residential environment has also been made clear by the higher prices of real estate located near natural amenities. From these findings it is clear that nature adds to the quality of life, which has become an increasingly important factor governing people's decisions on where to live, work and spend their leisure time; it is also likely to have an important influence on people's behaviour. Therefore rural areas that contain many natural amenities may be able to attract more activities than similar places which lack such qualities.

Several studies also showed that certain population groups are more likely to move towards natural amenities than others, which leads to a selective migration process. The main reason for this is that households with the greatest flexibility in choosing their place of residence are also best able to consider quality of life when making their choice. These people will therefore also be most inclined to move towards protected natural areas in rural places, and four specific household groups, which can be expected to be relatively over-represented in the migration flow, can be derived from the literature: early-retirees, 'footloose' households, middle-class households, and those seeking lower living costs.

Natural areas may also influence the development of rural communities. There are several potentially positive effects. If these areas attract tourists, new residents, and economic activities it will help to create new employment opportunities for the population and help to diversify the local economy. The attraction of new activities to an area may also have positive effects on the cultural development of local population groups, since it might enhance the strength of their cultural values, and stimulate developments based on endogenous qualities. Increased attraction of tourists, residents and businesses to an area may also help to maintain the service level and improve the accessibility of an area. All these developments are positive, but these may shift towards negative externalities if the attraction of new activities becomes too great. In tourism research this has already been extensively studied by applying the life cycle approach to the tourist development in an area. The advantages of attracting visitors to the area are positive as long as they do not exceed a maximum number. When this happens this will have negative consequences for the local economy, socio-cultural development of local population groups, and for the quality of the natural environment itself.

In chapters 2 and 3 the general context of this study in relation to the rural restructuring process and the residential and nature conservation activities in rural areas of the three case study countries was discussed. In the empirical part of this research the aim is to create a better understanding of the relationship between the presence of nature and the development of residential activities in rural areas by focussing on the situation in five different case study areas in Europe. In the next chapter the selection of these areas is further explained and a description is given of the specific regional context within which the relationship between protected nature and residential activities is investigated.

### Notes

- 1 'si un dia glorioso la Reconquista contra los árabes comenzó en Covadonga, es de allí de donde arrancará la Reconquista contra la desertizacion'
- 2 Founded in 1876 as Sociedad Geografica de Madrid
- 3 e.g. Associacio Catalanista d'Excursions Cientifiques, 1876 and the Centre Excursionista de Catalunya, 1891, the Guadarramistas', Real Sociedad Española de Alpinismo Peñalara
- 4 Zone a: areas with agriculture as the main function/Zone B: areas with an alternation of agriculture, nature and other functions in bigger spatial entities/Zone C: areas with an alternation of agriculture, nature and other functions in smaller spatial entities/Zone D: areas with the main function of nature.
- 5 The landscape quality is determined by the three 'E's: aesthetic, ecology and economy.