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2. Desertification and policies: the global, European and national arenas

J.J. Oñate, M. Juntti and G.A. Wilson

2.1 Introduction: linking policies and desertification in Southern Europe

Desertification, in its many definitions and manifestations, is undeniably a process to which both natural and human factors give rise. As Van der Leeuw (1999) points out, the dynamics of the processes driving desertification operate on various different time scales ranging from thousands of years to weeks, days or even hours. It is obvious that the considered time span has significant influence on which forces appear meaningful; several disappear from sight in the short run, while taking effect over a longer period of time. In the context of Southern Europe, this book explores the policy-related factors and processes that, over an approximately twenty-year period, have contributed to what at present is termed desertification, although recognising the still visible long-lasting effects of other factors.

There are several socio-economic processes, within and outside of the 20-year time span of analysis conducted here, that are in one way or another linked to desertification. Ranging from urban migration and consequent rural depopulation to irrigated agriculture expansion and consequent rise of living standards, these processes form the social dynamics of desertification and have more often than not been supported, if not initiated, by governmental intervention. Some have undoubtedly come about as unintended consequences of regulations and policies, but, nevertheless, have played a significant role in the changes that have taken place in an already ecologically stressed natural environment (Puigdefábregas, 1995). These processes can be seen as key driving forces of desertification, as further discussed in Part II of this book. Viewing the role of policies related to these driving forces of desertification in this context depicts desertification mitigation as a controversial task for national governments. These governments have to design and implement measures to counter the effects of past and present initiatives and decisions taken by both the EU and national governments that have often aimed at enhancing economic development thereby contributing to desertification (UNCOD, 1977).

The issue of desertification is highly politicised and open to interpretation. Controversies are not limited to the global arena or to the level of national governments. In practice, desertification often acquires status as a recognised problem when rising living standards and associated intensified landuses have led to conflicts over natural resources, the most prominent being conflicts over water (Thornes, 1996; Troeh et al., 2004). For example, the decisions taken by individual farmers to shift from crops traditionally grown in the Mediterranean lowlands - like cereals and permanent dryland crops - to irrigated crops, which at present are common in these areas, has resulted in a vast increase in expenditure of water in agriculture. Further, land abandonment as an alternative to these intensive and often
conflict-prone forms of land management can also be linked to deterioration of natural resources in the Mediterranean environment (Margaris et al., 1996; Van der Leeuw, 1999). In this sense, continuation of non-intensive farming and the consequent use of small-scale soil conservation management techniques, such as terracing and gully stabilisation, is beneficial as it can prevent large-scale and much more hazardous and uncontrolled erosion processes that would take place in an unmanaged environment in the Mediterranean climate.

Understanding the political and socio-economic dynamics behind these different forms of human intervention in nature can be seen as essential for managing and mitigating desertification, which, ultimately, is a question of defining the most appropriate uses for natural resources in both an environmental and socio-economic sense (Van der Leeuw, 1999). It is, therefore, crucial to define why certain land management decisions are made. For example, why have many farmers shifted from cereals to horticulture in Mediterranean lowlands? Further, who are the authorities responsible for inducing or accommodating such shifts, and what are the agendas guiding stakeholders’ decisions in order to achieve effective changes? The aim of the UNCCD and the subsequent NAPs is to inspire such coordinated efforts to mitigate desertification at national and sub-national level. As further discussed below, the considerable challenge is to achieve the integration of desertification mitigation goals into a vast array of policies guiding land management and the use of natural resources in affected areas. Part II of this book will analyse cases of socio-economic dynamics of desertification with particular emphasis on the policy context and stakeholder networks of land management in four areas in Southern Europe with particularly high propensity to desertification.

This chapter first discusses the emergence of global level agreements on the need to address the problem and the consequent drafting and ratification of the UNCCD, and then briefly addresses the general institutional and political context in which the convention is at present implemented in Southern Europe (Section 2.2). Before moving on to outline specific policies related to desertification in Section 2.3, some conceptual issues concerning the identification of relevant policies will be discussed. In addition to policies and programmes implicitly aimed at combating desertification, a wider framework of landuse related policies will be outlined in Section 2.3, focusing on the impacts of these policies on desertification processes. This will set the scene for Part II of this book which will explore how these policy frameworks function (or not) in the form of four detailed case studies from Southern Europe.

2.2 The UNCCD: genesis, objectives and implementation in the Southern European context

Combating desertification in Southern Europe takes place in the political context framed by the United Nations Convention to Combat Desertification (UNCCD). Not only does the Convention, in its five annexes, define which countries are affected by desertification, but it also promotes a certain kind of understanding of the phenomenon of desertification and of the required actions - the goals and processes of drawing up and implementing the National Actions Plans (NAPs) at the level of nation states and, ultimately, on the ground. It is therefore important to understand the politics of desertification at global level and the

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resulting objectives set for the NAPs, which can be presumed both to act as a catalyst and to give direction to most of the significant desertification mitigating actions in the countries in question here. In short, the task of desertification mitigation is that of transposing the global objectives to the local level, which is by no means an uncomplicated process as we argue in later chapters, and as is vividly illustrated by the case studies outlined in Part II of this book.

2.2.1 Global desertification policies: compromise or coherent solution?

The process through which desertification became recognised as an environmental problem demonstrates the significance of global-level scientific and political action in raising awareness of, and inspiring responses to, environmental problems. Scientific interest in studying landuse and land cover changes at the global scale was first expressed during the 1972 Stockholm Conference on the Human Environment. However, desertification did not begin to be recognised as a problem until 1977, when the United Nations Conference on Desertification (UNCOD) was held in Nairobi, Kenya. As a result of UNCOD, a Plan of Action to Combat Desertification (PACD) was adopted, the implementation of which was left to national governments, with an overall coordinating role assigned to the United Nations Environmental Programme (UNEP). Fifteen years later however, the Executive Director of UNEP had to recognise the failure of the PACD. Although many authors claim that the reasons for failure are complex and related to local socio-economic conditions and inappropriate policy instruments, the lack of interest from external funding agencies and the lack of funds in developing countries themselves were widely hailed as the main reasons for failure. Indeed, desertification control measures had not been sufficiently integrated into socio-developmental programmes, and there was also pronounced absence of involvement of local stakeholders in desertification mitigating actions (UNEP, 1991; Swift, 1996; Thomas, 1997; Sullivan, 2000).

The lack of funding for the PACD and the lack of effective action regarding desertification can, to some extent, be related to the perception by most developed countries of desertification as a regional problem, not necessarily warranting global action, although desertification was brought to the forefront of world attention in the 1970s due to the devastating environmental, social and economic impacts of recurrent droughts in Sahelian Africa (Olsson, 1985; Swift, 1996; Thomas, 1997; Bowyer-Bower, 2003). ‘Desertification’ was used originally to designate the circumstances of expansion of desert-like conditions (including absence of humans) in economically marginal areas such as the African Sahel, and the UNCOD definition of desertification emphasised this perception, where desertification was seen as the “diminution or destruction of the biological potential of the land, which could lead ultimately to the formation of desert-like conditions” (Pérez-Trejo, 1992, 12).

In the 1970s and 1980s, population pressure and resulting over-intensive land management by local populations were widely blamed for the degradation of African environments (Leach and Mearns, 1996; Fairhead and Leach, 1996). By the early 1990s, however, controversial evidence of the nature and causes of desertification in sub-Saharan Africa, together with increasing voices from the ground contesting the simplistic understandings of local-level driving forces of desertification, paved the way for a renewed approach to the issue at global
level (Swift, 1996; Sullivan, 2000; Bowyer-Bower, 2003). Further, the global nature of the problem was acknowledged when the shifting understanding of its causes expanded to recognise that larger arid and semi-arid areas of the globe, outside Africa, where also threatened (Dregne et al., 1991). Accordingly, a new definition was adopted by UNEP, in which desertification was understood as "land degradation in arid, semi-arid and dry sub-humid areas, resulting mainly from adverse human impact" (Pérez-Trejo, 1992, 13). The new, arguably vague, concept of 'degradation' and the expanded spatial dimension of the problem - now covering sub-humid areas in addition to desert-like areas - undoubtedly contributed to increased attention to the problem of desertification well beyond African countries. Nevertheless, African states remained the most active in international action against desertification, promoting the recognition of factors like poverty and the need for alternative livelihoods in resolving the problem, while still arguing for the need for increased funds.

During the preparatory process of the United Nations Conference on Environment and Development (UNCED) in 1992, popularly known as the Rio Conference, more than 40 African states pressed, under a common position, for a convention to combat desertification as one of the concrete outcomes to be included in Agenda 21 (UN, 1992). This convention would refocus international attention towards African issues, after binding conventions on climate change and biodiversity had been strongly supported by developed countries (particularly the EU). As a result, an entire chapter of Agenda 21 was devoted to the issue of desertification (Chapter 12 ‘Managing fragile ecosystems: combating desertification and drought'; UN, 1992). Further, a request was made to the UN General Assembly, at its 47th session, to establish an Intergovernmental Negotiating Committee for the establishment of an International Convention to Combat Desertification (INCD), with a view to finalising it by June 1994. The following quote illustrates that the extent and gravity of the problem of desertification was increasingly recognised at the global level in the early 1990s:

"Desertification affects about one sixth of the world’s population, 70 per cent of all drylands, amounting to 3.6 billion hectares, and one quarter of the total land area of the world. The most obvious impact of desertification, in addition to widespread poverty, is the degradation of 3.3 billion hectares of the total area of rangeland ...; decline in soil fertility and soil structure on about 47 per cent of the dryland areas...; and the degradation of irrigated cropland ... with a high population density and agricultural potential" (UN, 1992, paragraph 12.2).

After five negotiating sessions over only 13 months, the INCD came up with what came to be termed the ‘United Nations Convention to Combat Desertification’ (UNCCD) for countries experiencing serious drought and/or desertification, particularly in Africa (UN, 1994). The Convention was adopted in Paris in June 1994, along with resolutions recommending urgent action for Africa, and interim arrangements for the period between adoption of the
Convention and its implementation\textsuperscript{2}. The core of the UNCCD is the development of national and sub-regional/regional action programmes/plans (NAPs and RAPs respectively) to combat desertification, which are to be fully integrated into other national policies for sustainable development, and being flexible and modifiable as circumstances change. Reflecting the emphasis placed on local action in Agenda 21, the Convention itself states that these programmes are to be developed by national governments in close cooperation with donors, local populations and non-governmental organisations (NGOs).

Following the first phase of the negotiation process, the adoption of the UNCCD gave path to a ‘post-agreement’ phase of negotiations, focused on the development and implementation of the Convention. The Convention entered into force in December 1996, three months after it had been ratified by the required 50 UN members and 30 months after its adoption, representing a slightly longer delay than the ratification of the Conventions on Climate Change (22 months) and Biological Conservation (18 months). Up to six sessions of the International Negotiating Committee were held in the interim period between adoption and the first Conference of the Parties (COP; the Convention’s supreme governing body) in October 1997. Since then, four further sessions of the COP have been held, and pursuant to articles 22 and 26 of the Convention, a first meeting of the Committee for the Review of the Implementation of the Convention (CRIC1) took place in November 2002 and a second in September 2003. As of March 2004, 189 countries had ratified the UNCCD.

In comparison to previous international initiatives regarding desertification, the UNCCD is notable for its innovative approach regarding five specific aspects (see below), most of which are at the centre of the paradigm of sustainable development. However, reflecting the controversial politics behind defining and addressing desertification at the global scale, the road to these new and innovative aspects has been difficult and lined with hard negotiations between parties, often resulting in compromises (Sullivan, 2000; Bowyer-Bower, 2003). Underlying most differences, financial issues continue to be the key element of confrontation between the donor community and affected developing countries, although critics claim that, with closer examination, the problematic issues are much more complex and related to questions of power and interests in land management, and allocation and amount of international funds (Sullivan, 2000).

As the first novel aspect to addressing desertification, the Convention acknowledges that desertification and drought are problems of global dimensions, affecting all regions of the world and requiring joint action of the international community to solve them. In spite of wide scientific background supporting this new approach to the problem, its recognition in the UNCCD wording was one major point of divergence between developing and developed countries during negotiations, with the latter fearing the specific connotations that the term ‘global’ had within the Climate Change Convention. At the Intergovernmental Negotiating

\textsuperscript{2} The UNCCD Secretariat maintains a web page (http://www.unccd.int/main.php) where exhaustive information on the UNCCD itself and its implementation can be found. The 40-article UNCCD is divided into five sections: Introduction, general provisions, action programmes, scientific and technical cooperation and supporting measures, institutions, and procedures. In addition, the Convention contains four regional implementation annexes for Africa, Latin America and the Caribbean, Asia, and the Northern Mediterranean, which have equal legal status in the Convention. In December 2000, a fifth regional annex for Central and Eastern European countries was added.
Committee on Desertification, the developed countries were, therefore, careful to avoid similar responsibilities for action as established in the Climate Convention, which would have meant considerable alterations to their obligations for assistance.

The second novel aspect, partnership and partnership building as called for in the Convention, appears as one of its most significant accomplishments. The UNCCD invites three forms of coordination in the idea that combating desertification on a small scale will be insufficient. These three types of partnerships are to take place between the countries in the South, between developing and developed countries, and with other conventions. Partnership among developing countries is essential to increase aid coordination on the ground, ensuring that good pilot programmes are developed and replicated, and that technology transfer is redirected according to demand indicated at local level. However, Sullivan (2000) argues that developing countries may find it difficult to coordinate their work, not only because of conflicts of interests between different groups, but also because of the traditionally ‘top-down’ coordination among donors in the North. Partnership building implies that aid flows should be monitored and better assessed, and efforts should be stimulated towards not only funding but also increasing awareness regarding the new approach within international financial institutions.

A third innovative aspect is the call for involvement of affected local stakeholders and NGOs in the development of national and sub-regional/regional action programmes to combat desertification (Thomas, 1997). The acceptance of the importance of a participatory ‘bottom-up’ approach in the development of such action programmes, and the recognition that this element is a pre-condition to successful results, establishes a clear link between the UNCCD and the efforts of achieving sustainable development enshrined in Agenda 21. Moreover, the Convention specifically assigns a role to NGOs in participation. Twenty years ago, few countries would have even considered the usefulness, let alone the political significance and good sense, of NGO involvement. Now, NGOs not only have fruitfully participated in the negotiating process and influenced decision-making, but they are also called upon to play a key role in the development and implementation of the NAPs. As a result, the whole process has been an important capacity-building exercise for NGOs, whose impact on the UNCCD, and whose foreseeable role in its implementation, has set an important precedent for other conventions.

A fourth aspect relates to the fact that the North-South divide manifested itself also in the scope of the Convention, which did not provide new financial resources for combating desertification in affected countries. African and other developing countries came to the negotiating table hoping that the UNCCD would provide new and additional financial resources and technical assistance to deal with the causes and effects of desertification and drought. They were particularly interested in addressing the socio-economic causes of desertification, in the belief that it would be impossible to combat desertification unless issues such as external debt, international market conditions, exchange rate variations, pricing, trade policies and poverty were adequately dealt with (Wilson and Bryant, 1997). Developed countries, on the other hand, came to the table with the firmly held position that new and additional resources would not be forthcoming and, instead, called for existing resources to be used more efficiently (Bowyer-Bower, 2003). Moreover, advanced economies
preferred to limit the scope of the UNCCD on physical rather than socio-economic causes of desertification. The outcome of this discussion represented a compromise between the divergent positions. On the one hand, no commitment for new and additional financial resources was included in the UNCCD - an aspect deemed to be one of its biggest shortcomings according to many developing countries. Instead, a new awareness on the need to coordinate action and aid programmes was emphasised in the text, addressing the issue of re-orienting development aid. On the other hand, and as outlined above, in the search for explanations and solutions for desertification the Convention has recognised the socio-economic aspects of desertification on top of physical and biological causes. This recognition represents a key change in the attitudes within the donor community, now stressing the need for incorporating these factors into action programmes. Arguably, this allows the UNCCD to be considered as the first ‘sustainable development convention’ to be negotiated after the Rio Conference.

As for actions taken to re-orient aid flows, until 1994 funding for desertification mitigation rested on bilateral agreements between donors and individual developing countries, a system that proved insufficient to cope with full participation of the latter in INCD sessions. A new ‘global mechanism’ was established by the Convention in 1994 in order to increase the effectiveness and efficiency of existing financial mechanisms. After long discussions and negotiations, it was agreed that the global mechanism should aim to mobilise, guide and channel resources from existing bilateral and multilateral sources, including countries and international financial institutions, to activities, programmes and projects to combat desertification, thereby increasing aid coordination on the ground. In this sense, the UNCCD introduced the idea of financing the transition to sustainable development, placing the issue of ‘coordination’ at the centre of the strategy. Administered by the International Fund for Agricultural Development since 2000, the global mechanism has played an important lobbying and facilitating role, catalysing the mobilisation of resources from individual countries and existing financial institutions, and encouraging partnership between and within donors and developing countries. However, support from donors has been sporadic, dependent on the practical demonstration by affected countries of their political will within the provisions of UNCCD. In turn, lack of precise funds has been a factor discouraging developing countries from adopting important institutional, economic and social reforms needed to meet the requirements of the UNCCD.

However, as the issue of combating desertification has been re-oriented under the paradigm of sustainable development, an important shift in donor countries has taken place regarding financing of UNCCD implementation. The World Summit on Sustainable Development, held in Johannesburg (South Africa) in September 2002, was a pivotal meeting with regard to these developments. As a result, in October 2002 ‘land degradation’ was added as a new focal area for the Global Environmental Facility (GEF), the financial mechanism established in 1991 for international environmental agreements such as climatic change and biodiversity. Implemented jointly by the World Bank and the United Nations Development and Environment Programmes, the GEF brings together 173 member governments - working in partnership with the private sector, NGOs, and international institutions - to address complex environmental issues, while supporting national sustainable development initiatives. The decision to make the GEF the financial mechanism of the UNCCD will not only raise the profile
of desertification as a major issue, but will also allow countries to access new resources for implementing anti-desertification projects beyond those channelled via the above-mentioned Global Mechanism.

A fifth aspect of the Convention relates to scientific and technical cooperation issues, which also represent an innovative approach in the UNCCD. The idea to have a Committee on Science and Technology (CST) was driven largely by the presence of similar bodies in the Climate Change and Biodiversity Conventions. But the complex interface between the social and scientific causes of desertification required a unique and innovative approach to determine the character, composition and functions of the CST. After lengthy discussions, the CST was established as a subsidiary body of the COP, integrated by government representatives competent in the multi-disciplinary fields of expertise relevant to combat desertification and mitigating the effects of drought, and open to the participation of all parties. The functions of the CST include advisory functions, data and information functions, research and review functions, as well as functions related to technology, networking of institutions, agencies and bodies. The bureau of the CST is composed to ensure geographical distribution and adequate representation of affected country parties, is responsible for the follow-up of the work of the CST between sessions, and may benefit from assistance of the ad hoc panels established by the COP. However, the requirement of equal representation means that the number of members of the CST is (too) high, and the resulting quick rotation of bureau members is a key factor inhibiting the CST's work and causing inefficiency (Cornet, 2002).

These five innovative dimensions can be seen to make the UNCCD a unique, global, environmental agreement and agenda for action. However, throughout negotiations, developing countries have always expressed their concerns that countries belonging to the Organisation for Economic Cooperation and Development (OECD) were trying to downgrade the UNCCD to a lower status than the Conventions on Climate Change and Biodiversity. During pre-agreement discussions, African countries, in particular, had insisted that the Secretariat of the Convention should be an independent body outside any existing UN body. However, this option was not seen as financially viable by developed countries, who argued for better use of existing institutions, and a simple facilitative role for the Secretariat. Finally, in January 1999 the Permanent Secretariat was established by the United Nations in Bonn (Germany) to assist the Intergovernmental Negotiating Committee on Desertification and the COP. Yet, partnership among the Rio conventions still continues to be a matter of discussion. Since the three environmental conventions emerging from the Rio Conference have significant overlaps and with processes related to climate change and desertification being particularly difficult to disentangle, combining resources and institutions would make sense. One step towards this direction is that the NAPs will only receive funding from the GEF on the condition that they somehow relate to actions concerning other conventions (Cornet, 2002).

The three conventions (climate change, biodiversity, desertification) have clearly much to contribute to each other. The Conventions on Climate Change and Biodiversity, for example, could benefit from the above-mentioned innovative aspects of the UNCCD, especially the more participatory grassroots approach aimed at dealing with fundamental concerns of humankind such as survival and freedom. However, at present, this may only be possible at
the level of lessons learnt from past mistakes, as it remains as yet doubtful how well the UNCCD actually manages to address these issues in practice at local level (Adger et al., 2001; Cornet, 2002; see also Part II of this book)\(^3\). One factor adding to the doubts concerning actual grassroots involvement is that, although significant emphasis was placed on improving the participation of local stakeholders in the UNCCD process, local voices were rarely heard at the CRIC1 meeting. Even in terms of NGOs, the voice and interface of grassroots communities remained insignificant, with only 46 NGOs present and forming only a small fraction of the 650 stakeholder groups accredited with observer status to the COP (CRIC1, 2003). Further, evidence of a persisting need to tackle the local socio-economic context of desertification was also provided by the case studies reported from affected country parties, which clearly demonstrated the relationship between desertification and eradicating poverty. In addition, it was also suggested that the participatory process of implementation of action programmes has been a more demanding process than initially thought and that it fell short of attracting sufficient resources. In this sense, topics at the root of the problem such as land tenure, agriculture, pastoralism, poverty and food security, deserve further attention before implementation structures are put in place, based on issues such as technology availability, resource mobilisation, and legislative and institutional frameworks. Perhaps resulting from the lack of grassroots representation, issues concerning developed countries, such as resource mobilisation and coordination, were not fully addressed at the CRIC1 meeting, avoiding significant discussions on the root causes of the problems such as the impacts of agricultural subsidies on desertification processes in developed countries - one of the key justifications for writing this book. Thus, the report of the CRIC meeting highlighted that it could be questioned whether the Committee attempted a thorough review of progress made in implementing the UNCCD, or whether it was just a workshop to exchange information and report on ‘success stories’ (CRIC1, 2003).

The importance of the UNCCD is certainly highlighted by the number of countries who have ratified it - a number twice as high as for the Conventions on Climate Change and Biodiversity. However, resource shortage appears to be a real problem. The CRIC1 report (2003) points out several factors, including an overall decline in official development assistance over the past decade. As an illustration, only around two per cent of the amount of bilateral official development assistance from OECD countries was allocated to combating desertification between 1998-2000 (OECD, 2002). This is clearly a low figure even in comparison to biodiversity-related aid (3%) and climate change-related aid (7%). Ideally, the UNCCD would have much to offer to the other conventions, especially if it were able to find the right balance between international, national and local action and environmental and development objectives. Such coordination would not only result in resource efficiency but also, hopefully, stimulate tangible action. Needless to say, at the moment the modalities for such coordination are topics of further discussions. Indeed, this book aims to make a contribution to these debates by shedding more light on the impact of policies and policy processes on desertification at a Southern European scale.

In conclusion to this section, perhaps the most important accomplishment of all the negotiations that have accompanied the birth and implementation of the UNCCD, is the

\(^3\) As mentioned earlier, so far only a first meeting of the CRIC1 has taken place in November 2002 (CRIC1, 2003).
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international attention that has been mobilised around the problem of desertification. It is evident that, regardless of the specificities in the text of the Convention, the process itself has been a success in providing a networking forum for those affected by desertification including donors, affected developing countries, United Nations (UN) agencies, intergovernmental organisations and NGOs. These numerous contacts have already laid the groundwork for future partnership arrangements to combat desertification.

Nevertheless, political and participative dimensions still need particular consideration. First, at the political level awareness mobilisation has not yet taken place without conflict. As mentioned, desertification was considered almost exclusively an African problem at the beginning of the process, and African countries were the most interested in including desertification in Agenda 21 outcomes. Indeed, desertification has its greatest impacts in Africa, where combating desertification and promoting development are virtually one and the same due to the social and economic importance of natural resources and agriculture (UN, 1992; UNCCD, 1994; Bowyer-Bower, 2003). However, since the first session of the INCD one of the most contentious issues among developing countries has been precisely the regional implementation annex for Africa. Certain Asian and Latin American governments, while supporting the need for priority treatment for Africa, believed that similar instruments for other regions should be negotiated simultaneously. The possibility that the Convention would focus on development assistance, catalysing the provision of new and additional resources, stimulated a sudden interest in desertification by other developing countries outside Africa, while Africans feared that attention diverted towards other regions would have the effect of diluting the priority they had been guaranteed. The INCD was able to come up with a compromise on this issue by, on the one hand, incorporating four regional annexes on the implementation of the UNCCD, namely those for Africa, Asia, Latin America and the Caribbean, and, the area under focus in this book, the Northern Mediterranean (in December 2000 a fifth annex for Central and Eastern European Countries was added). On the other hand, the UNCCD still gives priority to Africa, both in formal terms with the addenda in its title 'particularly in Africa' (UN, 1994), and in practical terms by having simultaneously passed a resolution entitled 'Urgent measures for Africa'. This resolution entered into force in June 1994, and awareness-rising activities extended all over the region after developed countries began to demonstrate their support. Benefiting from this experience, the annex for Africa is the most detailed and thorough of the regional annexes to the Convention. As a result, by early 2003 24 African countries finalised, validated and adopted their NAPs, four Sub-Regional Action Programmes were finalised and a RAP is also being developed (UNCCD, 2001). It can be argued that the African experience should serve as an example for the other UNCCD Annex regions when preparing their action plans - an issue we address in Part II of this book.

Second, at the participative level real work still lies ahead in translating this political interest to the grassroots level. While developed countries need to commit themselves to implement the UNCCD - entering into productive partnerships with affected countries and increasing their efforts including capacity-building and financial support - one key challenge of the Affected Party governments is that many do not have a tradition of participation. Access to information is limited, and bottom-up input is practically non-existent, with desertification often being the result of flawed government policies and
projects (Pamo, 1998). Appropriate legal, political, economic, financial, and social measures need to be adopted in these countries in order to encourage participation (Van Rooyen, 1998; Seely, 1998). One crucial aspect is disseminating information to grassroots and community organisations to ensure that bottom-up input is received and incorporated into action programmes.

While these aspects of desertification mitigation have been studied in detail in the circumstances of developing countries, the participatory aspects of desertification mitigation in Southern European countries remains a weakly explored issue. The following section investigates the particularities of the Northern Mediterranean Annex to the UNCCD and the state and context of desertification mitigation in these Southern European countries (which will also be the focus of detailed analysis in Chapters 4-7 of this book).

2.2.2 Implementation of the UNCCD in Southern Europe

The regional implementation Annex IV of the UNCCD specifically concerns Southern Europe (the ‘northern Mediterranean’ in UNCCD terms), and designates the four EU Member States of Portugal, Spain, Italy and Greece as Affected Country Parties (UN, 1994). Similarly to the other annexes, the UNCCD identifies particular conditions affecting these countries, including:

a. semi-arid climatic conditions affecting large areas; seasonal droughts; high rainfall variability and sudden and high-intensity rainfall; poor and highly erodible soils prone to develop surface crusts;
b. uneven relief with steep slopes and diversified landscapes;
c. extensive forest losses due to frequent wild and anthropogenic fires;
d. crisis conditions in traditional agriculture with associated land abandonment and deterioration of traditional soil and water conservation measures;
e. unsustainable exploitation of water resources leading to serious environmental damage, including chemical pollution, salinisation and exhaustion of aquifers; and
f. concentration of economic activity in coastal areas as a result of urban growth, industrial activities, tourism and irrigated agriculture.

Annex IV also obliges the Affected Parties to prepare NAPs as a central and integral part of the UNCCD strategic planning framework for sustainable development. In preparing and implementing the NAPs, it prescribes the undertaking of a consultative and participatory process, involving appropriate levels of government, local communities and NGOs (UN, 1994). According to Article 5 of Annex IV, each affected Country Party shall:

a. designate appropriate bodies responsible for the preparation, coordination and implementation of its programme;
b. involve affected populations, including local communities, in the elaboration, coordination and implementation of the programme through a locally-driven consultative process, with the cooperation of local authorities and relevant non-governmental organisations;
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c. survey the state of the environment in affected areas to assess the causes and consequences of desertification and to determine priority areas for action;
d. evaluate, with the participation of affected populations, past and current programmes in order to design a strategy and elaborate activities in the action programme;
e. prepare technical and financial programmes based on the information gained through the activities in subparagraphs (a) to (d); and
f. develop and utilise procedures and benchmarks for monitoring and evaluating the implementation of the programme.

In June 1995, representatives of countries, intergovernmental organisations, the Commission of the European Communities, NGOs and other institutions involved in combating desertification met in Almeria (Spain) to hold the First Regional Conference on Desertification in the Northern Mediterranean. The Conference recommended that the Affected Parties should start immediately with the preparatory activities for the implementation of the UNCCD, recognising that the level of awareness and political willingness of Southern European countries towards desertification should be improved in order to launch the preparation of the NAPs (RCDNM, 1995). However, the pace of implementation of the Convention in Southern Europe has been slow, with Italy and Portugal delaying the submission of their NAPs until 2000 and Greece until 2001, while Spain only submitted their NAP in 2003.

Paradoxically, this slow implementation is taking place in countries with long traditions in fighting drought and soil erosion. Therefore, before analysing implementation of the UNCCD framework in the affected countries, and as a preparation for the case studies from each of the Southern European Affected Parties in Part II of this book, it is worth examining the circumstances behind this delay in more detail. In order to illustrate some of the typical problems associated with the development of NAPs in Southern European countries, we will investigate the case of Spain, which sheds light on key constraints and opportunities with regard to (non)-implementation of desertification mitigation initiatives.

Transposing the UNCCD from the global to the local: the case of Spain

As mentioned in the previous section, in the beginning of the 1990s the official definition of the term desertification changed its emphasis from ‘expansion of desert-like conditions’ to ‘land degradation in arid, semi-arid and dry sub-humid areas’. This shift in emphasis led to a more transparent definition acknowledging the global nature of the problem, with consequent expansion of the spatial dimensions of ‘desertification-affected’ areas both into and within Southern Europe. Having traditionally covered only the central and south-eastern regions of Spain, areas affected by desertification in Europe were extended to cover all semi-arid and dry sub-humid areas of the four Mediterranean countries (FAO, 1977; UNEP, 1992). However, the shifting meaning of desertification also contributed to confusion concerning both the concept itself and approaches to the problem, leading to the term ‘desertification’ being challenged as a scientific concept altogether (Helldén, 1991; Rubio 1995; Glenn et al. 1998). It was argued, for example, that the concept of land degradation diverts attention from the issue of increased water deficit, which forms the main characteristic of natural deserts. This means that how degradation is defined varies depending on individual or social
criteria and values (Pérez-Trejo, 1992; see also Chapter 9). Moreover, the approach to desertification has diverged, with one strand oriented towards better understanding of the physical processes that lead to land degradation, and another aiming at addressing factors that may cause social and economic problems resulting from desertification (Puigdefàbregas, 1995).

The case of Spain is illustrative of the consequences that this changing emphasis in the meaning of desertification has had in the social, scientific and political response to the problem. Spain appeared in the first desertification map of the world as the most affected European country, with more than 25% of its territory classified as being under ‘very high’ threat of desertification. As early as 1981, and following the guidelines of UNCOD, Spain launched the Project to Fight Desertification in the Mediterranean (Pérez and Barrientos, 1986). The objectives of this project reflected Spain’s comprehensive approach to the issue, which makes Spanish efforts to stand as a landmark in the efforts to combat desertification in affected Mediterranean countries. The project aimed to analyse the varied resources and factors involved in desertification processes; to determine means and techniques to fight desertification and to undertake integrated planning of preventive and restoration actions in affected torrential river basins; and to provide education and training and to disseminate the project issues among involved experts and local populations. Consistent with the conceptualisation of ‘desertification’ at the time, the project restricted its spatial remit to semi-arid south-eastern regions of the country and its thematic scope to the problems of soil erosion as the most important morphological process triggered by desertification in Southern European semi-arid regions (Mensching, 1986). This restricted thematic scope was reflected in both the selection of coordinating body, the Ministry of Agriculture, and the ‘hard science’-biased composition of the panel of cooperating institutions only including water authorities and research institutes in the areas of meteorology, hydrology, physical geography, biology, forestry and agronomy - basically the same institutions that had traditionally managed soil erosion and drought issues in Spain.

The growing international attention towards desertification in the 1980s and 1990s prompted a perception of soil erosion as a distinctly Mediterranean environmental problem while problems such as water pollution or acid rain were seen as ‘typical’ for northern and central European countries. This reinforced the efforts towards the ‘fight against erosion’ in Spain, where desertification continued to be perceived as a purely physical phenomenon (see also Chapter 4). Following Spanish entry into the EC, both political and scientific actors continued to adopt a perspective where desertification and soil erosion were seen as the two faces of the same coin and particular to semi-arid Mediterranean environments (Fantechi and Margaris, 1986; CEC, 1992; Geeson et al., 2002).

The above-mentioned shift of emphasis evident in the new definition of desertification adopted by UNEP after 1991 did not help to re-orient the Spanish approach to the problem, which remained skewed in relation to at least three issues. First, other processes leading to desertification, apart from soil erosion, tended to be overlooked in the political agenda and in research efforts, particularly over-exploitation of water resources, soil salinisation, pollution and the sealing of soils. Further, socio-economic drivers of actual desertification problems, such as intensive agriculture, irrigation, urbanisation and industrialisation, were
rarely perceived as contributing towards desertification, while more emphasis was placed on overgrazing, forest fires and deteriorating dryland management practices (Rojo Serrano, 1998). Second, action against desertification was narrowed down to engineering means to stop the ‘advance of the desert’, involving the prevention of forest fires, the hydrological correction of creeks, the afforestation of slopes after terracing, and the building of dams to counteract the effects of drought (Rojo Serrano, 1998). Third, the indirect link between desertification and degradation implicit in the new UNEP (1991) definition increased pejorative associations with the term ‘desert’, undoubtedly contributing to the negative generalised perception among society of arid and semi-arid environments based on arbitrary connotations of ‘degradation’ attributed to these environments (Esteve et al., 1990). Undoubtedly, this under-valuation has its roots in the low economic productivity of these systems under traditional exploitation regimes based on dryland agriculture, which has lately been forced to give way to irrigation expansion and tourism developments. As a result, perceptions and attitudes of Spanish stakeholders at all levels, including local populations, not only failed to change, but became fundamentally confused regarding the actual ‘desertification status’ of these areas, the identification of actual causes of desertification processes, and, most importantly, regarding the design of participatory solutions to the wider desertification problem - negative processes that we will also identify in other Mediterranean countries in our discussions in Chapters 5-7 of this book.

Insofar as this Spanish storyline is applicable also to the other three Southern European countries explored in Part II of this book, this helps explain why questions of water use, pollution, and the spread of urban and industrial landuses and tourism (points [e] and [f] of the Mediterranean Annex to the UNCCD mentioned above) have been difficult to take into account when designing the NAPs and, arguably, will be even more difficult to incorporate in the future during the process of final UNCCD implementation. As this book will show, in Southern Europe the main factor of desertification is the intensification of agriculture and the expansion of irrigated lands (Puigdefábregas and Mendizabal, 1998). However, as the remaining chapters of this book illustrate, agricultural intensification is only the tip of the iceberg in the complex web of interests and interactions governing land management. Most irrigation developments are supported by large financial and technological investments and accompanied by large population movements (including non-EU immigrants in the case of Spain). Moreover, these irrigation schemes are frequently competing for water with urban-industrial and tourism expansions, mainly in coastal areas. In Spain, under the current model of economic growth, a market-oriented view of water use has tended to advocate a ‘market-forces’ approach (Pérez-Trejo, 1992), conforming to criteria of economic sustainability, but affected by severe environmental problems linked to soil degradation (EEA, 2000). Up to now in the southern EU member states, social, economic and political structures have been able to defer these impacts in space and time. However, although economically wealthy, these systems appear not easily adaptive to further water supply reductions and/or increased environmental degradation, and solutions to desertification problems, therefore, need to be found very quickly.
UNCCD desertification mitigation initiatives at the wider European level

The Spanish example above illustrates the context in which implementation of NAPs to combat desertification takes place in Southern Europe. As shall be described in this section, three challenges characterise this scenario: first, the need to re-scope desertification issues to cover the wider approach of soil degradation as a complex environmental problem, including, in addition to soil erosion and floods and landslides, processes such as depletion of water resources, soil salinisation, compaction, land sealing, local and diffuse contamination, and decline in organic matter and biodiversity; second, the need to translate this wider approach to the analysis of policy drivers for such soil degradation problems, encompassing not only agricultural policies, but also those related to forestry, water, transport infrastructures, tourism, urban and industrial development, all in the context of pressures from economic growth; and third, the need to further strengthen public awareness regarding desertification issues at all levels from local populations to high level policy stakeholders, in order to induce political willingness to address the problem of desertification, and to ensure that effective participation procedures are put into practice in the diagnosis of the problem and in the search and execution of positive remedial action.

As further discussed below, and illustrated in detail in the case studies in Part II of this book, until now affected Annex IV Country Parties are facing difficulties in ensuring an appropriate institutional and legislative framework, enabling an effective public participatory process, and mobilising financial resources for NAP preparation and implementation (CRIC1, 2003). Institutional measures have been taken by all four countries under investigation in this book with the creation of National Coordinating Units placed under the responsibility either of the Ministry of Agriculture (Greece, Portugal) or of the Ministry of Environment (Italy, Spain). These mechanisms seem to be truly intersectoral, comprising representatives of the technical ministries involved, as well as a representative of the Ministry of Foreign Affairs and scientists. These actors have responsibility for communication on all matters relating to the Convention, ensuring coordination between ministries and other bodies (both public and private) concerned with desertification (COP4, 2000). Nevertheless, and as Chapters 4-7 will emphasise, it is still doubtful whether there is political willingness to give official status to the NAPs. In addition to the National Coordinating Units, the four countries have initiated a participatory process in support of the preparation and implementation of the action programmes, encompassing representatives of the administrations and the scientific community and NGOs. But the operation of these participatory processes has not always been as desired, in part because of their novelty and unfamiliar nature, but also because of weak involvement of stakeholders and NGOs and lack of an immediate response from their citizens. Finally, financial support for combating desertification has not been explicitly allocated in any of the four countries, and, instead, a re-direction of public financing under existing funds for activities linked to desertification is expected.

However, CRIC1 (2003) also recognised the relevance that instruments such as the Aarhus Convention on ‘Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Issues’ (UNEECE, 1998) might have in strengthening the participatory process. Furthermore, CRIC1 (2003) emphasised the cross-sectoral nature of the necessary efforts to combat desertification and the important role of supra-national policies,
such as the EU’s environmental and agricultural policies (see below), for the process of implementing the UNCCD in Southern Europe. This ‘Europeanisation’ of the desertification problem was already clear in the 1972 Council of Europe’s European Soil Charter (CoE, 2002, 9), in which European soils were considered as a complex natural resource increasingly threatened with various forms of degradation:

- **Physical degradation due to urban sprawl, erosion caused by development, transport projects or road construction, various types of mining activities, or destruction or compaction and sealing of surface soil as a result of intensive farming techniques.**
- **Biological degradation caused by sediment formation, acidification, natural salinisation and organic impoverishment of soil.**
- **Pollution caused by acidifying, toxic and chemical substances, particularly heavy metals, radioactive substances, dumping of household, industrial or radioactive waste, use of fertilisers and plant protection products, or spreading of sewage sludge or livestock waste.**
- **Degradation as a result of wind or water erosion or inappropriate farming or forestry practices.**

Further, the European Environment Agency, in a joint message with UNEP, recently focused attention on the status of European soils (EEA, 2000), prompting a discussion on the need for a pan-European policy on soil as a basis for managing European soil resources. In light of case study results discussed in Part II of this book, EEA (2000, 5) critically emphasised that

“In the end it is a matter of people and the interactions they have on the natural resources and the limited space available. The problem calls for new policies, including fair pricing, fiscal policies, and strategic planning concerning the use of land and natural resources. There is resistance from economic interest groups for such measures as it is seen as limiting liberalisation and reducing speculative expectations. This may become the biggest challenge for sustainability.”

Although the EU has yet to introduce specific soil protection measures, Community legislation deals with soils indirectly through various directives and regulations in the policy fields of agriculture, environment, regional development, transport and research, as discussed in the case studies from the four Southern European countries in Chapters 4-7 (see also Briassoulis et al., 2003). Conscious of the fact that soil is a vital and largely non-renewable resource increasingly under pressure by a range of human activities, and committed to the objective of sustainable development, the European Commission has recently issued a communication entitled ‘Towards a thematic strategy for soil protection’ (CEC, 2002a). Desertification is here understood as soil degradation occurring in dry areas, where climatic conditions combine with human activities in diminishing the soil’s capacity to carry out its functions. The strategy for soil protection considers desertification together with other forms of threats to soils, which, although not applying evenly across Europe, are explicitly linked to a worsening environmental situation that calls for increased Community action. The communication acknowledges the international initiatives towards soil protection, including the UNCCD and the ‘sister’ Conventions on Climatic Change and Biodiversity, as well as ongoing efforts by member states including NAP preparation processes in Portugal, Spain, Italy and Greece. Environmental policy, the Common
Agricultural Policy (CAP), regional policy and Structural Funds, transport policy and research policy are all identified in the communication as relevant for soil protection. This is a semantically distinct approach from that of UNCCD in the sense that it avoids the pejorative or negative connotations that the term land degradation poses, and, thus, may be more effective in increasing awareness among politicians, stakeholders and local populations. At the same time, the new approach considers the potential role of the whole set of policies influencing soil protection from a positive side, that is, exploring their potentially beneficial role towards soil protection instead of just emphasising their negative effects regarding land degradation.

Under this positive approach, the communication reviews the existing soil data gathering systems (surveys, monitoring, networking), and discusses the potential role of individual and combined Community policy instruments in soil protection. In this sense, the European Commission is placing soil alongside water and air as environmental media to be protected for the future. As the communication states:

"The Commission has taken a pragmatic approach directed in the first instance towards the adjustment of existing policies relevant to soil, taking both a preventative approach through the development of new environmental legislation and an integral approach for sectoral policies of particular relevance for soil" (CEC, 2002a, 35).

Finally, a work-plan and timetable for building a thematic strategy for soil protection are established, significantly envisaging a new communication on soil erosion, soil organic matter decline and soil contamination, in light of soil erosion in the Mediterranean region in particular. Overall, this initiative of the European Commission could arguably emerge with a new directive on soil protection which will ensure that soil protection, including the threats from desertification, is treated as a major issue to be tackled both within and outside the EU.

2.3 Policy impacts on desertification in Southern Europe: the influence of the policy arena beyond the UNCCD

The discussion in the previous sections has highlighted that desertification issues are embedded in more than just UNCCD policy concerns for combating desertification, and that issues of soil and water conservation, as well as many other policy arenas, will also have at times crucial impacts on desertification processes in both positive and negative ways. The following will broaden our discussion on policies and desertification beyond the level of the UNCCD, and will analyse how the wider policy environment can have severe implications for desertification enhancement, mitigation and management. Section 2.3.1 will approach this issue from a conceptual level, while Sections 2.3.2 and 2.3.3 will analyse in detail existing studies on EU policies that have been shown to have affected land management and desertification in Southern Europe.
2. Desertification and policies: the global, European and national arenas

2.3.1 Implicit and explicit policy effects on desertification: some conceptual considerations

As the key focus of this book is on understanding the linkages between policies and desertification, we also need to consider the impacts that the policy environment beyond the UNCCD may have on land management decisions and resulting desertification processes. In this context, it is necessary to analyse EU and national regulations that may have implications for the use of natural resources in our Southern European target countries.

Before we analyse in detail the key policies that affect landuse, land degradation and desertification in Southern Europe in Section 2.3.2, we first need to discuss issues related to conceptualising the possible impact that any given policy may have on the ground. This is particularly important in any assessment of the drivers of desertification, as in democratic societies (i.e. member states of the EU) human decision-making is shaped, and often dictated, by public policy processes. Three key conceptual issues need to be addressed in this respect: first, the nature of the link between policies and desertification beyond the UNCCD framework, which can be conceptualised as either explicit or implicit in the case of policies not directly addressing desertification issues or desertification processes; second, the fact that policy formulation does not necessarily lead to policy implementation; and, third, issues related to the dynamic nature of the policy environment, where possible conflicts between impacts of different policies and questions concerning the geographical scale, stakeholder interests and power over implementation arise, thereby often yielding unexpected policy outcomes.

First, it is important to highlight that no desertification policies per se exist yet in the EU. As highlighted in Section 2.2, the UNCCD only provides a framework for policy action (i.e. due to lack of legislative capacity for enforcement, it is ultimately a non-binding convention), rather than being a regulatory device directly influencing the actions of stakeholders on the ground. The first ‘tangible’ policy level is, therefore, the national implementation of policies in response to the UNCCD framework (e.g. NAPs) and, in the case of the EU, the supra-national EU policy framework. Yet, even at the supra-national and national EU level of policy-making, no actual desertification policies exist. Instead, and as Section 2.3.2 will discuss in detail, a wide array of policies that at first sight do not seem to be linked to desertification will have repercussions for desertification processes by encouraging or discouraging certain forms of land management. In the absence of a direct policy framework, it is, therefore, important to consider how the impact of such indirect (i.e. non-UNCCD) policies on desertification can be assessed. Thus, conceptually, we need to acknowledge the difference between ‘explicit’ and ‘implicit’ policies affecting desertification.

‘Explicit’ policies can be conceptualised as those policies that have explicitly been designed to address environmental issues related to desertification, such as air, water or soil pollution, conservation-enhancing landuses, and erosion prevention and correction. Environmental policy (mainly drawn up at EU level, but also to a certain degree at national level) can be broadly categorised as an ‘explicit’ policy, as it contains explicit aims and measures to prevent and/or mitigate surface and groundwater contamination, air pollution, and impacts from waste disposal, all of which prevent harmful effects on soil and, thus, on
desertification. Nature conservation policies, such as wildlife habitat and biodiversity protection, would also be ‘explicit’ in their objectives in relation to desertification, aiming at guaranteeing the survival of soil-protective vegetation cover, as do many measures related to forest conservation and planting. Further, environmental impact assessment regulations, both at the strategic and project levels, can be considered as ‘explicit’ in relation to desertification in the sense that soil conservation and erosion prevention are usually included among their particular objectives.

Further measures with explicit relevance for desertification processes are found under the Rural Development Regulation (RDR) of the CAP. Agri-environmental measures (in particular Regulation 2078/92) are the most relevant among these, where landholders across the EU are encouraged through various agri-environmental schemes to undertake environmentally-friendly practices with potentially beneficial impacts for soil conservation and desertification mitigation. However, afforestation of agricultural land (Regulation 2080/92) is also a relevant instrument of rural development, with explicit linkages to desertification through erosion prevention and soil protection. Arguably, following Agenda 2000, the RDR is set to gain increasing potential for promoting soil protection, and the new rural development plans include a definition of ‘good farming practice’ and a set of verifiable standards where soil protection receives considerable attention (Robinson, 2004). As granting of compensatory allowances in Less Favoured Areas (LFAs) of the EU is made conditional to meeting the standards for good farming practice, EU rural development policy can, arguably, be considered as an ‘explicit’ policy, indirectly addressing desertification (see, in particular, Chapter 7). Even within the continuously productivist first pillar of the CAP, some explicit opportunities for desertification mitigation can be seen to arise in a number of individual market regimes, such as set-aside in the arable sector and the extensification premium in the beef sector (Lowe et al., 2002). As will be discussed in detail in Part II of this book, whether these opportunities for increasing environmental sustainability are embraced by policy implementers and land managers, remains as yet subject to doubt. Nevertheless, policies described here as explicit can be conceptualised to have largely beneficial impacts on desertification mitigation in Southern Europe.

It is the ‘implicit’ policies that may be the most important with regard to worsening desertification in Southern Europe. Implicit policies can be conceptualised as those policies that have not explicitly been designed to address any of the environmental issues related to desertification, but that, by influencing the use of natural (and human) resources, nonetheless, may have severe indirect repercussions for desertification. Most often these implicit policies influence desertification processes by encouraging landholders to manage their land in ways which have negative effects in terms of erosion, water depletion or pollution and, ultimately, desertification. However, and as we will see throughout this book, the impact of these policies with regard to desertification processes are dependent on various factors, including the characteristics of the natural environment in question, and are, therefore, impossible to define without knowledge of the local geographical and socio-political context (see also Clark and Perez-Trejo, 1995).

‘Implicit’ policies will, for example, include many national and EU water policies, designed to control the use of water for irrigation, but with potentially negative effects for
desertification by encouraging increased landuse intensity with concurrent risks of soil degradation and desertification. Implicit policies will, in particular, include most CAP ‘first pillar’ agricultural policies, and it is among these policies that the most important policy drivers enhancing desertification processes are currently to be found (see Chapters 4-7). This policy framework includes, in particular, all EU schemes related to the organisation of specific agricultural commodity sectors, which are likely to encourage intensification of landuse as well as land abandonment - both leading to increased desertification risk. Arguably, and as an example of the often contradictory effects of EU policies, implicit policies in relation to desertification can also be found under the RDR, particularly among those related to farm modernisation measures. Section II of the book will, therefore, place particular attention to this potentially harmful cluster of water, agricultural and structural policies.

Second, in gauging the range of policies that are relevant for desertification beyond the UNCCD framework, it should be kept in mind that the formulation of a policy by ‘policy-makers’ at the national or supra-national level (in our case the EU) does not necessarily guarantee its ‘implementation’ (i.e. putting into practice what has been formulated in the policy document), let alone its effective operation at the grassroots level ‘on the ground’ (Ward et al., 1995; Wilson and Bryant, 1997). This highlights that the formulation of a policy does not necessarily result in a specific ‘impact’. Therefore, non-decision-making and the non-formulation and non-implementation of policies may be as important to consider, as are tangible policy implementation and its direct effects on desertification processes. Indeed, the whole process of policy implementation should be seen as a relatively fuzzy decision-making spectrum rather than a clear-cut point in time at which a specific decision is being made and put into practice (Sabatier, 1986; Winter, 1990; Jones and Clark, 2001). This calls for the need to identify and explore the involvement of various stakeholders in the policy processes surrounding desertification.

Third, a conceptual point that deserves attention in the analysis of the possible effects of policies on desertification processes relates to the dynamic nature of the policy implementation process and the responses by target groups. As the case studies from Southern Europe in Part II of this book will show, the policy/desertification interface is continuously changing over time. This means that some policies - whether explicit or implicit - that may have been ‘benign’ with regard to encouraging desertification at the time of their inception, may emerge at certain points in time as negative drivers of desertification processes - in other words, the significance of a certain policy with regard to desertification may vary within the time span of our analysis. This reinforces the argument made above that it can be very difficult to equate ‘policy’ with ‘impact’, and also means that the assessment of policy impacts becomes more and more problematic the more recently a policy has been implemented (i.e. the ‘direction’ and impact of recently implemented policies is hard to gauge). This is clearly the case with most of the CAP accompanying measures established in 1992, particularly with the Agri-environmental Regulation (Regulation 2078/92). A case in point has been the 20-year set-aside measure as part of this Regulation, which, in some areas, appears to have encouraged expansion of arable land and increased erosion due to lack of management practices (see particularly Chapters 5 and 7). In addition, the Agri-environmental Regulation is difficult to monitor both for compliance and for environmental impact (Brouwer and Lowe, 1998; Buller et al., 2000). The main factor raising concern in
this respect is the high degree of discretion granted to member states in deciding how exactly the Regulation is implemented, to which the voluntary nature of farm-level implementation adds.

A further and related complicating factor in estimating environmental impact of any policy is the time lag between policy implementation on the ground and the point at which resulting changes in the condition of the environment become ‘detectable’ and ‘measurable’. As a result, for policies implemented from the mid-1990s onwards (i.e. including many UNCCD-influenced policy initiatives such as the NAPs), for example, the actual impact with regard to desertification may not be apparent yet. While the detection of any physical changes depends on the existence and degree of sophistication of monitoring technology and databases, the reactions of the policy recipients (in most cases farmers and landholders in the context of our study) towards these policies depends on complex economic, political and socio-cultural factors that can change relatively rapidly, easily within the lifespan of a policy. In our discussion in the following chapters it will, therefore, be crucial to maintain a focus on the institutions and interests involved in policy implementation (or non-implementation), as well as on the grassroots level of landuse decision-making in order to gauge possible impacts of policies on the ground.

This brief conceptual analysis highlights that all three key considerations addressed here need to be borne in mind throughout our study. Policy implementation processes need to be scrutinised thoroughly so that we can explain some of the non-implementation and policy failures we are likely to observe in our four case study areas. The issue of ‘explicit’ and ‘implicit’ policies needs to be investigated in detail in our case study areas, and particular attention needs to be paid to the implicit - in other words indirect and less obvious - policy environment beyond the UNCCD. This should particularly allow us to leave room for ‘surprises’, suggesting that it may be impossible to anticipate at the outset which policy drivers will be the most important in any given area, and that some of the policies initially believed to have the least impact may emerge as key drivers for enhancing desertification processes.

The next section outlines the main groups of policies beyond the UNCCD considered relevant to desertification at a European scale, while focusing more closely on those that appear to have specific impacts on desertification in the four case studies that will be discussed in Part II.

2.3.2 Non-UNCCD policies related to desertification in the EU

As Section 2.2 has highlighted, the UNCCD encourages the Affected Country Parties to utilise already existing environmental initiatives, instruments and institutions to combat desertification, and emphasises the importance of public participation in mitigating desertification processes. The task of desertification mitigation at the level of national governments is, therefore, that of coordination and planning, involving identification of the relevant policies and addressing their implementation. The NAPs and the National Coordination Units are supposed to play a key role in this coordinating task, but, as discussed above, and judging from the statements of the CRIC1 (2003) document, significant progress
remains yet to be made in Southern Europe. The need to take stock of national level legislation that influences landuse processes related to desertification, therefore, still persists.

In the Annex IV countries of Southern Europe, natural resource use is to a large extent regulated by EU policies, implemented by national officials, and the focus in this section will be on outlining the relevant EU policy context, with specific focus on policies affecting desertification in the four case studies discussed in Part II⁴. The vast and varied range of policies with either implicit or explicit links to desertification is by no means a facilitating factor in the implementation of the NAPs. The landuse processes linked to desertification are governed by a number of regulations, the impacts of which need to be identified and addressed in order for the objectives of the UNCCD to be met. The CRIC1 (2003, 27) emphasised the significance of planning processes and budgeting at national level, and further argued that “the need for more coherent legislative codes, policy instruments and strategic frameworks dealing with sustainable land management emerged [as] one of the main challenges and opportunities for the UNCCD process.”

The idea of policy coordination and intersectoral collaboration is not uncommon in the field of European environmental policy (Jordan, 2002). Indeed, environmental policy integration is now an integral aspect of policy-making, especially as the inclusion of environmental concerns in processes and decisions of public policy-making that are predominantly charged with issues other than the environment is enshrined as a policy principle in the so-called Cardiff Process (Hertin and Berkhout, 2003). The 6th Environmental Action Programme outlines seven thematic strategies which, at EU level, aim to tackle soil protection, protection and conservation of the marine environment, sustainable use of pesticides, air pollution, the urban environment, sustainable use and management of resources and waste recycling. Due to their complexity and intersectoral scope, these strategies involve a wide array of actors and processes (Fantechi et al., 1995; CEC, 2000, 2001). This implies a strong need for coordination across different policy fields and for environmental integration (Briassoullis, in press). Moreover, and as discussed above, so far the Commission Strategy for Soil Protection can be seen as the most comprehensive European-level initiative that addresses issues relevant to desertification.

The policy fields that require special attention and coordination in soil protection are outlined in the strategy as comprising environmental, regional, agriculture, transport and research policies (CEC, 2002a). Table 2.1 shows a subset of these policy arenas that have repercussions, either directly or indirectly, for desertification in the four case study areas investigated in this book. In these case studies, there are four main policy areas that require particular attention when addressing desertification: water policy, environmental policy, the Common Agricultural Policy (CAP) and what can now be termed rural development policy, which groups together Less Favoured Areas (LFA) payments and structural and environmental measures for agriculture, as well as some forestry measures. Although these policies have been deemed significant on the basis of results acquired from case studies, they also represent results from Southern European rural areas in general (see Chapter 3 on case study

⁴ As the case studies in Part II of this book illustrate, there are also individual cases of purely national-level regulations which can also influence desertification processes.
Table 2.1: Implicit and explicit policies (selection) affecting landuse changes and desertification processes in the four case study areas in Italy, Greece, Portugal and Spain (to the year 2000) (Source: authors).

<table>
<thead>
<tr>
<th>Water policy:</th>
<th>E = Spain</th>
<th>P = Portugal</th>
<th>I = Italy</th>
<th>G = Greece</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/60/EEC: Framework for community action in water policy (E,P)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>80/68/EEC: Protection of groundwater against pollution (E,P)</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>1975/82/EEC: Irrigation works in mountainous areas and LFAs (G)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>676/91/EEC: Protection of water against nitrate pollution (E,G,P)</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Agricultural policy:

| 136/66/EEC: Olive oil sector (I,G)                                          |           |              |           |            |
| 120/67/EEC: Organisation of durum wheat cultivation (I)                     |           |              |           |            |
| 1035/72/EEC: Fruit and vegetable sector (E)                                 |           |              |           |            |
| 2727/75/EEC: Cereal, oilseeds and protein crop sectors (E)                  |           |              |           |            |
| 268/75/EEC: LFA Directive (G)                                               |           |              |           |            |
| 1837/80/EEC: Organisation of sheep and goat sector (G)                      |           |              |           |            |
| 856/84/EEC: Milk quota regulation (I)                                       |           |              |           |            |
| 797/85/EEC: Improving efficiency of agricultural structures (E,I,G,P)        |           |              |           |            |
| 465/86/EEC: Less Favoured Areas (E)                                         |           |              |           |            |
| 466/86/EEC: Less Favoured Areas (E)                                         |           |              |           |            |
| 1094/88/EEC: Set-aside (E,I)                                                |           |              |           |            |
| 3013/89/EEC: Organisation of sheep and goat sector (G)                      |           |              |           |            |
| 2092/91/EEC: Organic agriculture; designations of origin of products (E,I,G)|           |              |           |            |
| 2328/91/EEC: Agricultural investment; improving efficiency of agricultural structures (I,G) |           |              |           |            |
| 2329/91/EEC: Improving efficiency of agricultural structures (E)            |           |              |           |            |
| 2378/91/EEC: Extensification of production in sensitive areas (E)           |           |              |           |            |
| 1765/92/EEC: Cereal, oilseeds and protein crop sectors (I,P)                |           |              |           |            |
| 1766/92/EEC: Cereal, oilseeds and protein crop sectors (I,P)                |           |              |           |            |
| 1910/92/EEC: Organisation of durum wheat cultivation in Greece (G)          |           |              |           |            |
| 2059/92/EEC: Organisation of the sheep and goat sector (G)                  |           |              |           |            |
| 2078/92/EEC: Agri-environmental regulation (E,I,G,P)                         |           |              |           |            |
| 2079/92/EEC: Early retirement scheme for farmers (G,P)                      |           |              |           |            |
| 2081/92/EEC: Protection of designations of origin of products (G)           |           |              |           |            |
| 3950/92/EEC: Organisation of milk sector (G)                                |           |              |           |            |
| 536/93/EEC: Milk quota regulation (I)                                       |           |              |           |            |
| 2019/93/EEC: Improving economic situation of small islands in Aegean (G)    |           |              |           |            |
| 3072/95/EEC: Compensation payments to cereal crop producers (E,P)           |           |              |           |            |
| 2201/96/EEC: Organisation of fruit and vegetable sectors (incl. almonds) (E,P) |           |              |           |            |
| 950/97/EEC: Improving efficiency of agricultural structures (E,G)           |           |              |           |            |
| 951/97/EEC: Investment in agriculture; improving processing and marketing of agricultural products (I,G) |           |              |           |            |
| 2309/97/EEC: Organisation of durum wheat cultivation (I,P)                  |           |              |           |            |
| 1638/98/EEC: Organisation of olive oil sector (I,P)                         |           |              |           |            |
| 2366/98/EEC: Organisation of olive oil sector (G,P)                         |           |              |           |            |
| 2467/98/EEC: Organisation of sheep and goat sector (E,G)                    |           |              |           |            |
Table 2.1: Continued.

1254/99/EEC: Organisation of beef and veal sector (I,P)
1255/99/EEC: Organisation of milk and milk products (I,G)
1256/99/EEC: Organisation of milk and milk products (G)
1257/99/EEC: Rural development regulation (E,I,G,P)
1259/99/EEC: Direct payments for specified crops; common rules for direct support schemes (E,I)
1260/99/EEC: Regulation of Structural Funds (G)
1493/99/EEC: Organisation of wine sector (I,G)
2529/01/EEC: Organisation of sheep and goat sector (G)

Environmental and nature conservation policies:
409/79/EEC: Conservation of wild birds (E,G,P)
337/85/EEC: Environmental Impact Assessment (E)
479/86/EEC: Protection of the environment in the Mediterranean basin (E)
43/92/EEC: Conservation of natural habitats and wild fauna and flora (E,G,P)
42/2001/EEC: Environmental Impact Assessment (E)

Forest policy:
797/85/EEC: Afforestation and set-aside (E,I,P)
3229/86/EEC: Protection from forest fires (E)
3528/86/EEC: Protection of forests from air pollution (E,I)
4256/88/EEC: Development and exploitation of forests (E,I,P)
1610/89/EEC: Exploitation of forests in rural areas (E,P)
867/90/EEC: Transformation and commercialisation of forest products (I)
2080/92/EEC: Forestry measures in agriculture (E,I,G,P)
2158/92/EEC: Protection from forest fires (E,I)
308/97/EEC: Protection from forest fires (E)

methodology and general applicability of results). Below we shall briefly describe the characteristics of these policies, leaving out transport and research policies, which are not featured in our case studies due to their relatively indirect links with desertification processes. We will also outline some of the features of the four policy fields that we argue are crucial in defining the impact of these policies on desertification.

As discussed in Section 2.3.1, it is not just the identification of the exact range of policies, but also economic, structural and cultural forces impacting on their implementation and land management in general, that are fundamental to the understanding and coordination of desertification mitigation. Moreover, when focusing on policy impact, it should be kept in

5 We acknowledge, nonetheless, that transport and research policies, as well as a whole host of other policies (e.g. social policies), may also, at times and in specific geographical contexts, constitute important drivers of desertification (see Briassoulis et al., 2003, and Briassoulis, in press, for further detail).
mind that policies issued at EU level are of a peculiar nature, both in terms of how they have come about and how they are implemented (Jordan, 2002). The European Commission acts as the leading administrative authority in charge of drafting policies in collaboration with committees of experts at central EU level. Although there are slight variations to the process of decision-making depending on policy sectors, it is often a long-winded process, involving various committees, the European Parliament, and the European Council of Ministers, before the member states finally can implement the legislation. The top-down nature of EU policy-making is criticised by Albroemeit (1998), who argues that the under-representation of regional perspectives is endemic in decision-making processes at EU level, where member states are represented by national level authorities. Further, trade-offs and compromises in final policy format are characteristic of the negotiations between the different member states and the Commission in the decision-making process (Wilson and Wilson, 2001; Nugent, 2003). The range of individual policies within the policy areas discussed in this section as having linkages to desertification in Southern Europe is, therefore, wide and varied (see Table 2.1), while the coordination of design and implementation of these policies at EU level, as well as at member state level, is cumbersome and often lacking. The various political interests at play in their design mould the policies themselves, and when it comes to implementation of legislation, the EU is, often due to lack of resources, more or less at the mercy of individual national governments and administrative agencies (Jones and Clark, 2001; Wilson and Wilson, 2001; Nugent, 2003).

2.3.3 Agricultural and environmental policy drivers

Agricultural policies under the first pillar of the CAP are key to our discussion and warrant a more detailed analysis due to their potentially severe impacts on desertification processes in Southern Europe. They provide subsidies for agricultural products, are centrally negotiated, and subject to intense bargaining on behalf of each member state attempting to secure a maximum amount of subsidies for farm income (Wilson and Wilson, 2001). They are implemented and monitored by national agencies, often involving local-level policy officials whose actions the Commission can not always control. In practice, this means that the amount of subsidies a farm receives, and more importantly the area of eligible land or the number of eligible cattle, is ultimately controlled by the discretion of administrative officials below the ministerial level of governance. There are two mechanisms which can be seen to embody this principle of subsidiarity at member state level and that have increased in significance following implementation of Agenda 2000. First, optional modulation at national level enables the transfer of funds from direct subsidies of the CAP first pillar towards rural development measures under the CAP second pillar (Falconer and Ward, 2000; Buller, 2001). However, the implications of modulation at farm level are simply the reduction of the amount of money incurred from CAP subsidies, conditional upon farm income, total amount of subsidies received, and use of external labour. A further mechanism with more direct implications for environmental issues and desertification processes at farm level is environmental cross-compliance, where the reception of direct subsidies is made conditional upon meeting certain environmental standards (Lowe and Brouwer, 2000). Thus, and in line with the principle of subsidiarity, cross-compliance increases the room for discretion in the implementation of the CAP at national level even further. Although both modulation and cross-compliance can be said to enable the introduction of stricter environmental
considerations into the implementation of direct subsidies, the extent to which this actually happens remains questionable (Lowe et al., 2002).

When considering specific Common Market Organisations (CMOs), it is those linked to arable crops, olive oil, fruit and vegetable, sheep and goat meat and beef and veal that have the most significant potential to accelerate desertification processes in the case study areas considered in Part II (see, for example, Chapter 5). Since the 1992 CAP reform, all subsidies paid through the arable regimes have been based on land area. In the cereals sector, this has had clear implications in terms of encouraging farmers to expand their arable area. Meanwhile, repercussions in livestock farming are less straightforward. The livestock CMOs contain requirements for stocking density, and the Beef Regime has an extensification premium for which the maximum stocking density has varied from 1 LU\(^7\)/ha to 1.6 LU/ha. However, these limits have proven too high for most environmentally fragile grazing areas (Andersen et al., 2000), often resulting in increases in stocking densities (rather than decreases) with potentially dramatic impacts on desertification processes (see, for example, Chapter 7). Since 1992, the Sheep and Goat Meat Regime has been based on a quota system defining the number of heads for which each producer is eligible to receive a subsidy. Although these quotas are tradable among the producers, a practice known as 'ring-fencing' sets limits on the accumulation of headage numbers in a limited area (Ashworth and Caraveli, 2000). Extensive livestock grazing systems constitute a significant land use in valuable and traditional habitats at a European scale, but particularly in Southern European mountain, woodland and scrubland areas. As Chapters 4–7 will show, the main problem appears to be that stocking densities tend to increase, either due to changing farming practices (lack of pasture rotation) or because of subsidies received through the CAP second pillar support mechanisms.

In the case study areas where the empirical material for this book has been collected, the CAP rural development policy is relevant to desertification mainly through its structural measures for agriculture (modernisation of agricultural holdings and LFA support), agri-environmental policies, and forestry measures. Whereas the structural support funds for rural areas are now administered through the RDR, previously these used to be governed by separate regulations and objectives (mainly Objectives 1 and 5a and 5b of the structural funds). The aim of LFA support is to maintain farmers on the land in areas that can be described as 'agriculturally disadvantaged', but where farming is seen to contribute to the maintenance of the countryside, including human populations. LFA support is paid in form of a supplement to various farm support measures that apply throughout the EU, including aids for farm modernisation, aid for collective investment, CMOs for certain livestock and crops, structural measures for agriculture, and agri-environmental support (Dax and Hellegers, 2000). Further, certain livestock quotas have been expanded within LFAAs and, even more importantly, these quotas do not prevent livestock densities per ha from rising above the given limit for LFA aid. The support for the modernisation of agricultural holdings, in

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6 Environmental cross-compliance was a voluntary measure at national level until 2005, but has been made a compulsory requirement in the Agenda 2000 mid-term review. This means that, at the time of writing, a European-wide framework for cross-compliance is beginning to be applied by each member state.

7 LU = livestock unit
turn, is paid in the form of investment support, support for young farmers, support for early retirement and for enhancing education, bookkeeping and management support (CEC, 1997).

Although both the LFA support and the structural development measures have contained principles of environmental sustainability in the past, environmental considerations have gained prominence following Agenda 2000 reforms and their integration into the new RDR. Their status in the post-Agenda 2000 rural policy field, however, remains somewhat ambiguous, given the varied range of motives behind the reform (Robinson, 2004). The need to ensure continuation of farming while also encouraging other forms of rural livelihoods, together with the pressure to provide justification for agricultural support in the global market forum, can be seen as encouraging the integration of environmental and other quality-oriented criteria into the CAP and European rural development funds, but they may also be seen as ulterior agendas inspiring environmental concerns as a façade (Buller, 2001). However, not only are the specific goals of rural and structural development on the ground left almost entirely to the discretion of national, regional and even local-level policy actors and stakeholders, but also the extent to which these are compliant with principles of environmental sustainability (Nugent, 2003).

The agri-environmental and agro-forestry schemes of the EU, both of which have explicit desertification mitigating aims (as discussed above) are similarly problematic. Since the passing of Agenda 2000, both regulations have been located under the umbrella of the RDR, and are hence eligible to receive additional funds from direct CAP subsidies through cross-compliance and modulation. However, given the combination of environmental and farm-income linked motivations behind the birth of these accompanying measures as a result of the 1992 CAP reform, these policies are often criticised for compromising environmental targets and functioning just as an alternative source of income (Buller et al., 2000; Wilson and Hart, 2000). Particularly the agri-environmental regulation is notorious for remaining open to interpretation in the implementation phase, to an extent where environmental goals are prone to intended or unintended compromises (Buller, 2000; Paniagua, 2001; Juntti and Potter, 2002). Administrative agents responsible for implementing these regulations at regional and local levels are in a critical position to determine the interpretation of the goal of these policies into practice. Despite the benefit attached to decentralised and deliberative models of policy implementation, mainly in terms of inspiring greater policy ownership at operative level, this is by no means guaranteed in the case of environmental policies in particular (Jones and Clark, 2001; Juntti and Potter 2002). Further exploration of the success of these policies in mitigating desertification or agri-environmental problems more generally, is, therefore, more than justified and has already received considerable attention in European policy research (e.g. Whitby, 1996; Brouwer and Lowe, 1998; Buller et al., 2000; Prindahl et al., 2003). Another obvious cause for concern is the lack of financial weight attached to these policies, particularly in comparison to CAP first pillar funds, although the modulation of subsidy funds at member state level may act to alleviate this disparity to some extent in the near future. The extent to which possible beneficial effects derived from agri-environmental and agro-forestry schemes in terms of counteracting desertification are offset by other policies encouraging intensification and unsuitable management practices is one aspect addressed in the case studies in Part II of this book.
2. Desertification and policies: the global, European and national arenas

A further key policy arena that will guide the analysis in the case studies is linked to what could be loosely termed EU ‘environmental policies’ - which, on the whole, usually fall into the explicit policy category with regard to desertification mitigation outlined above. In this context, the EU LIFE programme forms a crucial funding instrument filling an important gap between the creators of scientific information on the environment and those managing natural resources at the operative level. It was created in 1992 to support the environmental policy objectives of the EU, with the aim of co-financing environmental initiatives which entail both the demonstration and development of environmental measures and instruments (CEC, 2002b). The idea is to further the integration of both environmental considerations into community legislation as well as practical development and diffusion of measures to mitigate and manage environmental problems in EU member states and in certain third countries (mainly those bordering on the Mediterranean Sea). The LIFE programme is divided into three parts. ‘LIFE Nature’ is aimed at supporting the implementation of the Habitats Directive (43/92/EEC), ‘LIFE Environment’ focuses on environmental innovation and development of management and mitigation practices more generally, and ‘LIFE Third Countries’ supports the development of environmental legislation and administration in certain less developed countries outside the EU and in new Eastern European EU member states (CEC, 2002b).

As already discussed above, the extent to which desertification is tackled by environmental policies in general has been subject to criticism (e.g. CRIC1, 2003). In light of the history of European environmental policy, concerns appear justifiable (Ward et al., 1995; Jordan, 2002). Initially, EU environmental policy had more of a coordinating than regulating role, including, among others, water policies (also deemed relevant for desertification issues in the case studies of Part II of this book; see Table 2.1 above). The beginnings of environmental policy at European scale were characterised by efforts to ensure that various national environmental standards and regulations did not form barriers to the free movement of goods and services in the area of the then EC (Liefferink et al., 1993). The numerous policies concerning environmental issues are based on aims and objectives defined in Community Environmental Action programmes, the first of which was adopted in 1973 (Hildebrand, 2002). Environmental policies, and in particular conservation-oriented policies, face an obvious need to be adaptable to national, regional and local environmental circumstances and values. This has meant that the principle of subsidiarity is central in the implementation of environmental policies (see above discussion on EU agri-environmental policy, for example) which are mostly formulated into directives, binding only in terms of defining objectives to be achieved, whilst leaving national governments free hands to decide over form and method (Hildebrand, 2002). In the case of both regulations and directives on environmental issues, like control of pollution and waste, implementation is characterised by negotiations and trade-offs between national interests which take place throughout the policy process (Jordan, 2002). Nevertheless, EU environmental policy has induced a considerable increase in national level legislation in member states (Ward et al., 1995), although a completely different matter is how, or rather whether, resulting legislation is implemented into practice.

The environmental policies most relevant to desertification in the case study areas of Part II of this book are the Habitats Directive (43/92/EEC), which designates certain areas as protected with limited options for management; the Directives on Environmental Impact...
Assessment and Strategic Environmental Assessment (337/85/EEC), which define procedures for assessing the environmental impact of potential projects, plans and programmes; and the Water Framework Directive (2000/60/EEC), which ensures the protection of water from pollutants and sets requirements for a river-basin based management system. Here cross-border cooperation between administrative regions and nation states is required in water management and protection, in terms of maintaining good standards of water quality but also in terms of water quantity and defining a need for common principles for controlling water abstractions and impoundment where these may be relevant. Most of the legislation controlling irrigation and setting quotas for water use, however, are established at the level of the nation state (see, in particular, Chapter 4).

2.4 Conclusions

This chapter has provided an analysis of global desertification policies linked to the UNCCD and non-UNCCD policies established at EU or Southern European level that have an impact on desertification processes at the local level. It was highlighted that the UNCCD provides an overarching framework for policy implementation, rather than being a regulatory policy mechanism itself. As a result, the transposition of UNCCD guidelines to the EU and national levels within Europe has, at times, been difficult.

This situation is further complicated by the fact that non-UNCCD policies emerge as at least equally important with regard to both desertification mitigation and enhancement. Our conceptualisation of these policy clusters into either implicit or explicit policies linked to desertification particularly illustrates the complexity and vast scope of policy dimensions of desertification at European level. While some explicit policies (especially environmental and conservation policies) offer potential for positively managing desertification, our discussion has also highlighted that policies linked to agriculture or water management can increase desertification problems in Southern Europe by encouraging landholders to further increase production intensity on already vulnerable land. This means that in the absence of a holistic desertification policy framework at EU level, integration of desertification mitigation aims into different policy arenas remains a considerable challenge for the EU and the NAPs - an issue we return to in our concluding Chapter 10. In particular, the process of drawing up the NAPs in the four Annex IV countries under investigation in this book (Spain, Portugal, Italy and Greece) is as yet relatively unexplored and has not substantially advanced to the phase of implementation at the time of writing. Ideally, the NAPs should form coordination frameworks for the implementation of all the policies and projects discussed here.

This chapter will form an important basis to understand case study-specific desertification and policy issues in our four case study areas discussed in Part II of this book. As will be evident from both these case studies and the theoretical analysis of existing and emerging actor networks in the policy framework affecting desertification in Southern Europe explored in Part III, there are severe barriers relating to political institutions, interests, knowledge and communication among the relevant policy stakeholders, that inhibit the functioning of the Southern European NAPs in practice. The remainder of this book will analyse the nature and causes of these barriers in more detail and will discuss how they can be overcome.
This book analyses processes of desertification from a social science perspective and unravels the policy related to drivers of desertification. Desertification is addressed both as a concept surrounded by a multitude of different discourses and as a tangible unsustainable process that is connected to a complex set of policies and changing land management practices. The focus will be on Southern Europe, where desertification has been a long-standing problem in many areas, and where in some places the loss of productive capacity has worsened considerably over the last few decades. By focusing on four specific case study areas in Portugal, Spain, Italy and Greece, the scope of the book will cover the ‘human dimension’ of desertification, exploring in particular how the framework of existing policies has affected land management decisions and desertification processes. The emphasis will be on how policies may have contributed to desertification alleviation and mitigation, as well as to a worsening of desertification processes. By using an actor-network approach, the book specifically investigates the importance of networks of actors that shape the nature and direction of policies that affect desertification processes. In this sense, this book aims at providing a first glance into the complex policy, economic and socio-cultural networks that operate at the local, regional and national levels in areas of Southern Europe affected by desertification, and to analyse how these networks hinder, or promote, the implementation of policies aimed at alleviating the threat of desertification. With its broad remit, this exciting book will appeal to many different audiences, not only including academics and students of various disciplines (including, for example, geography, environmental management, environmental sciences, agricultural sciences, policy studies, environmental politics, etc.), but also practitioners at the local, regional (Mediterranean) and international (e.g. EU) spatial levels in a variety of fields such as environmental and agricultural policy-making, agricultural extension services, farming organisations, environmental NGOs, media representatives and many other environmental stakeholder groups.

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